

Corporate Responsibility Report 2011

### ArcelorMittal Gent, Geel & Genk



# Content



\* Arcelor Mittal comprises the production sites in Gent, Geel and Genk

# ArcelorMittal Gent in a nutshell

#### Maritime and integrated

Arcelor Mittal Gent is an integrated steelworks located in the port of Gent. We are part of the Arcelor Mittal Group, which is a leading steel and mining company. Our plant has all the necessary facilities to convert raw materials into steel products with high added value. Every year, 5 million tons of flat carbon steel is shipped to automotive and industrial customers. Many cars, appliances, furniture and other applications are made of our steel.

Employing 4,700 people, we are one of the largest private employers in Flanders. Our employees' knowledge and motivation are two of our main assets. They play an essential part in the further optimisation of our safety performance, product quality and overall productivity.

#### High-tech

Research and innovation are at the heart of our company. We work closely together with different research centres within Arcelor Mittal and schools to develop new steel grades and new coatings.

The different steps in the production process are described in process models. Thanks to software systems, statistical techniques are applicable online, which is of paramount importance in product quality control and in the production process efficiency. Thanks to control models, the organisational and logistic aspects of the production process are watched closely. Thanks to this process innovation, we have been able to double our productivity in 15 years' time.

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Gathering and centralising knowledge is crucial to our company's continuity and technological progress. That is why support services are so valuable: they allow knowledge to be passed on smoothly in case of adjustments or expansions.

#### Environmentconscious

In terms of our environmental performance, innovation is also vital. It is a prerequisite for sustainable growth. About 15% of our investment budget is dedicated to environmental improvements. Our profound concern for the environment and thorough knowledge of the production process have resulted in sophisticated process-integrated measures and in the improvement of our environmental performance. This is for instance illustrated by our efforts to be among the most energy-efficient steel companies in the world. Over the past 20 years, we have reduced our energy consumption by 30% by investing in a modern production apparatus and by recovering the energy present in flue gases to produce steam.

15% of our investment budget is dedicated to environmental improvements.

Employing 4,700 people, we are one of the largest private employers in Flanders.

# Mission and values of ArcelorMittal Gent

Arcelor/Mittal Gent strives towards leadership in the production of high-quality flat steel products in a sustainable entrepreneurial way.

As a producer of flat carbon steel, ArcelorMittal Gent is part of basic industry. It regards **safety** at the workplace as its number one priority: safety for all its employees, without making a distinction between its own personnel and those contractors who work on site.

Within the flat carbon steel business unit of the Arcelor-Mittal Group, ArcelorMittal Gent strives towards **leadership** in the production of high-quality flat steel products in a sustainable entrepreneurial way.

ArcelorMittal Gent is fully aware that this entails great **responsibility** towards its stakeholders, customers, employees, the immediate surroundings and the environment.

The steel industry remains a basic industry creating products that are essential to the world economy. Arcelor Mittal Gent has the advantage of being located at a site where a maritime steel industry is still able to further develop.

Keeping a heavy industry running in a region with a dense population and vulnerable **environment** is therefore a challenge Arcelor Mittal Gent is willing to take on at all times.

By investing in research and development, ArcelorMittal Gent is fully committed to top technological performances. Maintaining continuous contact with customers and researching new applications in collaboration with customers are key factors in developing new products and processes.

The efforts invested in research and development are intended to optimise the life cycle of steel, from the raw material extraction right through to the ultimate recovery and recycling of end products with due respect for the environment.

In developing its **human capital**, Arcelor Mittal Gent applies the principle of subsidiarity. Each employee is encouraged to have ownership to the tasks entrusted to him and only to turn to the hierarchy if that would offer genuine added value.

ArcelorMittal Gent is conscious that its **customers** are the reason for its existence. In order to ensure profitability, ArcelorMittal Gent aims for perfection in its service and product quality and does its utmost to build a relationship of trust with its customers.

The Group's **international expansion** brings new potential for collaboration. Exchanging know-how and merging different cultures in an atmosphere of openness and mutual respect are vital for taking full advantage of this opportunity.



### Message from the CEO

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Wim Van Gerven

#### In 2011, we worked hard to strengthen dialogue with our employees.

World crude steel production reached 1,527 million tons for the year of 2011. This is an increase of 6.8% compared to 2010 and is a record for global crude steel production. All the major steel-producing countries apart from Japan and Spain showed growth in 2011.

Annual production for Asia was 988.2 million tons of crude steel in 2011, an increase by 7.9% compared to 2010. The region's share of world steel production increased slightly from 64.0% in 2010 to 64.7% in 2011. China's crude steel production in 2011 reached 695.5 million tons, an increase by 8.9% on 2010. China's share of world crude steel production increased from 44.7% in 2010 to 45.5% in 2011.

The European Union recorded an increase by 2.8% compared to 2010, producing 177.4 million tons of crude steel in 2011. Spain produced 15.6 million tons of crude steel, a 4.6% decrease on 2010, while Italy produced 28.7 million tons in 2011, an 11.3% increase over 2010.

However, European steel demand still was approximately 20% lower than in 2007. Hence, 2011 was a challenging year for European steel industry. Economic recovery was hindered and because of the uncertainty about the future of the Euro zone, customers switched to wait-and-see mode. Moreover, the European steel business is dealing with structural overcapacity, high raw material prices determined by Chinese economy and low sales prices because of the European economic climate.

Within this context, ArcelorMit-

tal is committed to sustainable business. To this end, cost efficiency is a top priority. That is why, as part of our response to the economic situation, an asset optimisation plan has been implemented concentrating production in the most competitive plants. In this way, ArcelorMittal can recalibrate the Group's steel production to the evolving market situation, and satisfy the reduced market demand from the most competitive plants in terms of cost efficiency and operational reliability.

ArcelorMittal Gent has been acknowledged by the Group as a core plant. In 2011, our plant produced 4.4 million tons of slabs. The capacity utilisation in Gent was therefore higher than the average capacity utilisation in the Business Division North, which comprises the plants in Bremen, Dunkerque, Florange, Gent and Liège. Our plant produces high-quality steel in a cost-efficient manner. Moreover, we have the required flexibility to be able to seize market opportunities and process lastminute orders.

Sustainable business comprehends more than cost efficiency and reliability. In terms of sustainable development, Arcelor-Mittal Gent adopts the same strategy as the ArcelorMittal Group, which is based upon four pillars:

- Investing in our people
- Making steel more sustainable
- Enriching our communities
- Transparent governance

efforts. Enriching our communities

Every company that seeks to implement sustainable development must be aware of what is going on elsewhere in the world. We want to make an active con-

# Key Performance Indicators 2011

tribution to society to increase welfare and overall well-being. We participate in sustainable community development by for instance combating poverty or creating training opportunities for people who find themselves on the brink of society.

### Transparent governance

Our corporate strategy, our business and our daily activities are underpinned by transparent governance. We want to be acknowledged for our irreproachable behaviour towards our employees, customers, business partners and society.

In times of change, information and communication are essential to keep our employees motivated and preserve our reputation with our stakeholders. Therefore, in 2011 we worked hard to strengthen dialogue with our employees, for instance by asking our managers to spend more time on the shop floor and by organising information sessions for all employees. By taking part in events such as Flemish Open Port Day and Company Discovery Day we strengthen dialogue with our neighbours.

By informing our internal and external stakeholders better and by giving argumented answers to their questions, we hope to be able to rely on their understanding, commitment and confidence so that we can pursue our cooperation and achieve our objectives in 2012 as well: producing top-quality steel in a safe, efficient and sustainable way.

We hope that this very first Cor-

porate Responsibility Report will demonstrate that sustainable development is an integrated part of all activities carried out by ArcelorMittal Gent and that we assume our responsibility – together with all stakeholders – to work on striking a harmonic balance between economic performances, social interests and environmental care.

#### Wim Van Gerven - CEO and Chairman of the Management Committee of ArcelorMittal Gent

Sustainable business comprehends more than ensuring cost-efficiency and reliability.

#### Investing in our people

Safety frequency rate – internal employees – contractors	1.3 4.3
Percentage of the sites that have a safety management system that	
meets the international	
OHSAS 18001 standard	100%
Number of training hours	223,147

#### Making steel more sustainable

$CO_2$ emissions per ton of liquid steel	1.79 tons
Specific energy consumption per ton of hot rolled coils	16.66 GJ
Specific water consumption per ton of liquid steel	4.9 m³
Amount of scrap per ton of	
liquid steel Total amount of environmental	202 kg
investments	3.65 million €
Percentage of the sites that have an environmental management system that meets the requirements of the	
international ISO 14001 standard	100%

#### Enriching our communities

Number of employees ArcelorMittal Gent, Geel en Genk	4,838
Number of active registered	
contractors	3,208
Number of sponsored projects	70

#### Transparent governance

Percentage of employees that have	
subscribed to the principles of the	
Code of Business Conduct	100%
Frequency of information	
sessions for employees	4 x
sessions for employees	

Danny Heirman of the blast furnaces in dialogue with his superior. We aim at further developing a positive corporate culture every day by communicating openly and transparently.



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# Investing in our people

As one of the largest private employers in Flanders, we bear major responsibility. The health and safety of our employees is one aspect, but it is also important to ensure that our employees can work in a pleasant atmosphere and feel appreciated for their abilities and performances. By for instance offering training opportunities to our employees and by communicating openly and transparently, we try to increase job satisfaction and commitment. In other words: every single day, we try to further develop a positive corporate culture.

# Investing in our people

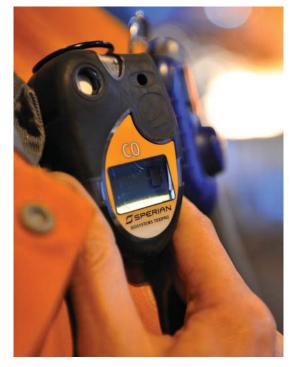
### Q.What to remember from 2011 in terms of safety?

A. 10 February 2011 will forever be a dark page in the history of our company. Thomas Lübke, who worked for the German company Loewe, was suffocated when he removed material from the converter in the steel shop after applying a new refractory lining.

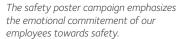
Following this fatal accident, a Fatality Prevention Audit was

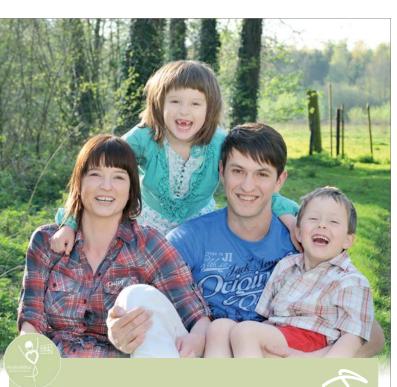
carried out by ArcelorMittal experts in March. The aim of such an audit is to prevent fatal accidents by ensuring that the ArcelorMittal safety standards are applied. An action plan was drawn up which we had to finalise within one year's time to meet the ArcelorMittal standards. The Group has defined six safety excellence levels (0 to 5). The minimum requirement is level 3. In the first semester of 2012, we intend to reach the highest safety excellence level (5) for most standards.

One of the measures taken after the fatal accident was the introduction of individual CO and O<sub>2</sub> detectors, which employees must carry on them at all times. These new devices were first introduced in the steel shop. By the end of 2012, all employees working in gas hazardous departments will have their own personal gas detectors. The main subcontractors working for ArcelorMittal Gent on a regular basis will provide gas detectors for their own employees.



All employees working in gas hazardous departments will have their own personal gas detectors by the end of 2012.





ArcelorMittal

I work safely. Both for myself and for them!

# In 2011, our internal employees' safety performances were excellent.

# Q. How was the safety performance of our internal employees?

• Our own employees performed very well in terms of safety in 2011. The lost time injury frequency rate (= number of accidents resulting in at least one day's absence from work per million hours worked) dropped from 2.1 to 1.3. This means we are close to reaching the safety target defined by the ArcelorMittal Group, i.e. a frequency rate below 1 by 2013. However, the number of reported hand and eye injuries, fire incidents and severe incidents still require our attention. With the safety management system OHSAS 18001, shop floor audits conducted by managers, systematic risk analyses drawn up before commencing tasks and the development of safety cases within the context of World Class Manufacturing (WCM), we put in structural efforts to further improve our safety

performance.

In the past, our efforts to increase safety awareness focused more on technical optimisations. Going forward, we are committed to also gain our employees' emotional commitment towards safety. That is why we launched a safety poster campaign on the Health and Safety Day of 28 April 2011. In all, we distributed 10 posters displaying our own employees and their families. The baseline of this campaign was "I work safely. Both for myself and for them!" After all, we must be convinced that safety is our top priority and genuinely believe that every accident can be prevented, so that we are able to safely return to our families every day.

We also created 10 posters each of them showing the application of one specific Golden Rule. The Golden Rules are safety standards related to life-threatening risks which are proper to our industry. The strict application of these rules is at the core of our safety policy. The Golden Rules were also communicated through notifications on the computer logon screen, footers in emails, fixed dedicated slides in the standard Arcelor Mittal PowerPoint template and monthly Health and Safety Inserts in our employee magazine, '1'.

On Thursday 28 April 2011, the Worldwide Health and Safety Day took place. This year's theme was 'From priority to value'. Health and Safety must be an integrated part of our company. Health and Safety cannot be a mere obligation, it is a fundamental attitude in which we strongly believe and wish to excel. All employees had the opportunity of participating in numerous activities: visual inspections of company vehicles, somersault car, alcokart, driving simulator, first aid training, start-to-run, fit-o-meter and so on. On 28 April, Aditya Mittal, Chief Financial Officer (CFO) and Member of the Group Management Board (GMB), and Vijay Goyal, Chief Financial Officer (CFO) of Flat Carbon Europe (FCE) visited Gent. Their presence on the shop floor was a strong signal that Health and Safety are core values. They encouraged us to keep on raising the safety bar. On that same

day, ArcelorMittal Gent was also officially presented with the OHSAS 18001 certificate. OHSAS stands for Occupational Health and Safety Assessment Series. It is the international occupational health and safety management standard.

At the occasion of the Health and Safety Day, we launched a new safety competition in our '1' personnel magazine. Our employees could work with their children to help them discover ten unsafe actions or situations in a playground scene. Each unsafe situation referred to one of the Golden Rules and therefore provided an ideal opportunity to consider the importance of these rules both at work and at home. 25 winners were chosen at random out of 600 entries.

In 2011, the Performance Excellence Awards were presented for the third time by Flat Carbon Europe. On 27 January, we received a Performance Excellence Award for the retraining course we organise for employees who did not comply with the Golden Rules. The purpose of this initiative is to motivate our employees to abide by the Golden Rules. These are explained and consequences of violations are shown. We hope that participants in this training return to their departments as genuine safety ambassadors by always respecting the Golden Rules themselves and setting an example for their colleagues.



One of the 10 posters on the application of the Golden Rules.

# Investing in our people



By working together with our contractors (pictured are employees of Altrad Balliauw), we can reduce the number of accidents and ensure everyone's safety.

#### A working group was created to lift contractors' safety performance to a higher level.

# Q.How do we improve contractor safety?

Over the past few years, the frequency rate of contractors has shown an upward trend. Last February's fatal accident once again made us face this fact. The Fatality Prevention Audit conducted by the ArcelorMittal Group showed that we had to improve contractor guidance and followup. Therefore, a working group was created to lift contractors' safety performance to a higher level. A step-by-step contractor management plan was drawn up. We will reduce the number of external companies working

at ArcelorMittal Gent through better selection, follow-up and assessment. All departments are responsible for preparing work adequately, for clearly specifying environmental risks on the hot work permit and, above all, for ensuring that safety standards are applied on site. We have also developed a Contractor and Supplier Portal. This is an online interactive communications platform. External companies can register their employees in advance and put in the estimated work time. The portal is used to convey safety information, e.g. on the Golden Rules, general zone-related risks and the duration of badges or qualifications with respect to specific training courses.

In order to boost contractors' safety awareness, we send

them copies of our '1' personnel magazine and they are asked to elaborate on their safety policy in a dedicated article series.

Our renewed contractor safety approach has started to pay off. In 2011, our contractors' lost time injury frequency rate was 4.3, compared to 7.2 in 2010. Just as our internal employees, contractors must strive towards achieving a frequency rate below 1 by 2013. In order to enhance safety at our internal railways crossings, high risk crossings were fitted with barriers.

# Q. How do we invest in road safety?

 In 2011, 39 employees suffered an accident on their way to or from work. 70% of these accidents involved cyclists. The number of lost-time days caused by road accidents was five times higher than the number of lost-time days caused by industrial accidents. Cycling may be healthy, but it must also be safe. That is we organised road safety training courses for cyclists ('Fietsmar') and car drivers ('Automar') in September. Employees could participate together with their families and learn how to behave preventively and defensively in traffic. Since late 2011, the safety department sits down with employees who have suffered a road accident to review the circumstances in which the accident occurred. By analysing road accidents and taking preventive actions, we hope to prevent future accidents from happening.

In order to enhance safety at our internal railway crossings, stop signs were placed and high risk crossings were fitted with barriers. We hope that this will contribute towards the strict application of the Golden Rule on rail safety and reduce the number of (near) collisions. The Golden Rule on rail safety stipulates that vehicles must come to a complete standstill before crossing a railway and we expect all employees and contractors to comply with this fully.

# **Q.**Why is health this important?

Safety is our top priority and health cannot be seen separately from it. That is why we have a Golden Rule about starting work in a fit and able condition. Any company that cares about its employees, wishes them good health. Management ensures that people can work in good health. There are also objective considerations to take into account. Healthy employees feel fitter, perform better, are more productive and are less likely to be absent from work. Reducing absenteeism is indeed an important issue. We pay great attention to analysing and monitoring absenteeism and reintegrating employees who have been ill.

Smoking and obesity are two



risk factors that can damage our health. Over the past few years, there has been a significant change in mentality: everybody now acknowledges that both active and passive smoking are damaging to our health. As a company, we do not only want to sensitise smokers but also protect employees against forced passive smoking. Healthy eating is another important theme that is addressed during medical consultations. We point out the dangers of obesity. In safety sessions, health and safety training workshops for new employees and in the '1' magazine, the subject of healthy eating is discussed. Being fit and able also means being well rested, and avoiding drugs and alcohol abuse. There have been awareness campaigns on these topics.

Between 21 and 29 September 2011, Arcelor Mittal Health Week was organised for the second time. With this initiative, the Arcelor Mittal Group wants to contribute towards all employees' health by promoting a healthy way of living. Health Week focused on exercise. Over 1,100 employees took part in a wide range of activities, such as start-to-bike, start-to-swim, spinning and Nordic walking. Those who preferred taking it more slowly could attend information sessions on food, stress, smoking, alcohol and drugs. Employees could also have their cardiovascular risk profile determined. During the Health and Safety Day, emphasis was on occupational health, whereas the Health Week also focused on private health. We deal with health on a structural basis, but initiatives such as the Health Week serve as an additional incentive.

> Healthy employees feel fitter, perform better, are more productive and are less likely to be absent from work.

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# Investing in our people



Wim Van Gerven during one of the information meetings for managers..

The Decoration happening was all about sociability and collegiality.

# Q. How do we engage our own employees?

In times of change, information and communication are essential to keep people motivated. We inform our employees through LCD screens, newsflashes and our personnel magazine. However, communication is not just about informing; it is about two-way interaction. Line managers play an important role in this respect: they must be the first point of call employees feel they can turn to when they have questions to ask. Our Management Committee also wanted to assume its responsibility and in the course of 2011 organised information meetings with all managers (down to and including foremen) to strengthen dialogue. Afterwards, all departments organised their own sessions in which as many employees as possible were given the opportunity to learn

more about the challenges our company was facing and to ask their questions. By informing our colleagues better and starting a dialogue with them, we hope to be able to rely on their understanding, commitment and confidence so that we can work together and achieve our ambitious targets.

Furthermore, we like to show our appreciation and respect for the dedication and loyalty of our employees by organising internal events for them.

- Every year, there is a Decoration happening. Employees who have been at work for 25, 30, 35 or even 40 years and their partners are put in the spotlight for an entire day.
- On Saturday 30 June 2012, the personnel happening 'Feestmar' will take place for the fourth time in our history. It will also mark the 50th anniversary of our company. Feestmar offers all internal employees and their families and all retired employees and their partners the opportunity of getting acquainted with a

#### Communication is not just about informing; it is about two-way interaction.

whole other side of the company. Everybody can participate in a boat trip along the Gent-Terneuzen canal, go on a company tour in a covered wagon or visit to the in-house fire department. There are also musical performances and various activities for young and old. The previous edition of Feestmar saw no less than 13.000 participants. Every time, Feestmar is one of the social highlights of our company. To be successful, we count on the motivation, knowledge and enthusiasm of every single employee.

• For several years now, we have been sponsoring the Gent Jazz Festival, which takes place at the end of July. All employees can request two day tickets free of charge. In all, we distribute 1,500 tickets for this world-famous jazz festival.





# Q. How do we develop our employees?

• We fully believe that all employees should have the opportunity to climb the ladder, to shape their careers in accordance with their capacities, interests and ambitions. This has a direct impact on job satisfaction. For this reason, we invest heavily in training and education. Employees are trained to become specialists in their fields of expertise or can take further training. In 2011, ArcelorMittal Gent spent 3.4% of its labour cost on training and education. For comparison, the target imposed on companies by the federal government's Generation Pact is 1.9%.

Our training offer is quite extensive. Employees can take training courses on

- electrical and mechanical maintenance
- the production process, including metallurgical aspects and customer relations
- quality: for example, quality assurance, statistics, World

Class Manufacturing... • safety

- management skills: for example, attitude, management, learning techniques, teaching techniques...
- languages
- IT: both Office, SAP as inhouse developed tools

For a number of courses, the training department utilises internal teachers; other courses are given by external experts. There are also e-learning opportunities, some of which are organised by the ArcelorMittal University.

Technical knowledge and know-how are fundamental to the needs of each production department. It is important that competences and knowledge be centralised and be transferred to ensure the continuity of the company. We strongly believe in mixing young and old. In other words, the experience and knowledge that senior coworkers can transmit to younger employees is priceless. In fact, this knowledge is one of the main ways in which we have stood out from the competition and can continue to do so in the future.

Moreover, we keep in close touch with the academic world (universities, colleges and technical schools). After all, that is where our future employees are trained.

On 10 September 2011, we paid tribute to the employees who had finished the metallurgy course and to the maintenance workers who had successfully finished their promotion tests. In 2011, 22 maintenance workers became head technicians and were given a certificate. 22 employees obtained their degree in metallurgy.

# Q. How do we maintain social dialogue?

A. Social dialogue is part of our company's tradition. In 2011 an agreement was reached with our social partners on maintenance workers' statute. The system for rewarding their competences financially has now been enhanced. After all, we rely on the knowledge of our employees to carry out maintenance tasks effectively and efficiently.

The negotiations on new collective labour agreements for blue and white collars were also on the social agenda in 2011. The agreement included two important elements:

- Respecting the legal wage standard as from 1 January 2012.
- Increasing the age of retirement by applying specific modalities.

When an agreement was reached with our social partners on the collective labour agreements 2011-2012 for blue and white collars, this emphasised once again the importance of social dialogue.

Nico Hautekiet from the environmental department in dialogue with a departmental environmental coordinator. Departmental environmental coordinators ensure the implementation of the environmental policy in their own departments.



We aim at producing high-quality steel in Flanders and at the same time keeping our environmental impact to a minimum. Every year, 15% of our investment budget is spent on measures to boost our environmental performance. In order to further integrate our company into the region, it is also important that we communicate openly and transparently with our neighbours about our environmental efforts.

### Q.What is the environmental impact of steel production?

ArcelorMittal Gent is an integrated steelworks with an annual steel production capacity of 5 million tons. This means we have all the necessary facilities to convert raw materials into high-quality finished products. We use about 9 million tons of raw materials per year, mainly iron ore and coal.

Steel production via the socalled blast furnace route is energy-intensive. Combustion processes inevitably lead to the formation of  $NO_x$ ,  $SO_2$ ,  $CO_2$  and dust.

We also use considerable quantities of water, which is used as cooling water, as process water and in gas treatment facilities. Most water is taken in from the Gent-Terneuzen canal, treated and reused several times before being discharged back into the canal.

We also use additives and fluxes. Numerous liquid products are stored in vessels and/or tanks and are transported through ducts. We are committed to prevent all spilling and leaking.

Our processes and facilities produce noise; just think of fans, compressors, mills and all types of transport. At all times, we try to minimise the impact this has on our neighbours. When new investments are planned, experts conduct noise studies to determine the noise impact these investments might have. If necessary, adequate measures are taken. For instance, when the secondary dedusting facility for the steel shop was designed, an additional 1.5 million Euros was invested in noise isolation. The secondary dedusting unit extracts flue gases which are generated when liquid hot metal is converted into steel. These flue gases are rich in dust; in

a second phase, this dust is separated from the flue gases.

In the different production stages, a bypass flow of products is generated which we try to recycle as much as possible, especially products containing iron and/or carbon. Only a limited quantity of substances for which we cannot find a useful application are considered as waste.

It is clear that our company has some impact on the environment. However, we are a high-tech company with stateof-the-art facilities and highly qualified and motivated people. We therefore have what it takes to reduce the environmental impact of our activities to a minimum. We have what it takes to reduce the environmental impact of our activities to a minimum.

### Q.How do we use natural resources economically?

• As part of basic industry, ArcelorMittal Gent uses large quantities of iron ore, fluxes, energy and water. One of the spearheads of our environmental policy is the 'economical use of natural resources and energy'. That is why we invest in our production apparatus so that we do not only produce steel, but also modify a maximum of products used during the production processes so that they become suited as raw materials for other industries or for other useful applications. In other words, we strive towards converting all natural resources into products that are useful for society.

In the different production stages, a bypass flow of products is generated for which ArcelorMittal Gent seeks a useful application. In this bypass flow of products we usually distinguish by-products, residues and waste products.

By-products are substances that, mostly after an extra treatment, can be reused as a raw material, both within Arcelor Mittal Gent and in other companies and in the most diverse applications. By adjusting the production process or the chemical composition by adding fluxes, we can convert these products into valuable by-products which are used in other industries as a substitute for natural resources.

In the coking plant, tar, benzol and sulphur are released. All three of these products can be used as raw materials in the chemical industry. During the blast furnace process, not only liquid hot metal but also slag is

produced. This slag is granulated by powerful water jets in a separate facility. This granulated slag is called blast furnace sand, which is used in the cement industry as an alternative to clinker. During the production of liquid steel in the converter in the steel shop, LD slag is also formed. The chemical composition of this LD slaq will determine whether it is of sufficiently good quality to be converted into LD gravel in a separate slag treatment unit. In this unit, sand and oxygen are injected into the liquid slag. As a result, the remaining iron is oxidised and the silicium binds with the free lime. This is how LD gravel is produced, which can be used as an alternative to natural products such as porphyry, which is used in road construction. Slag which is not suited for conversion into LD gravel is crushed. Then, the iron is extracted and the slag is screened in various grain sizes. LD slag can be used for durable surfaces – such as car parks, roads, paths and driveways. Coarser fractions (larger than 40 mm) can be used as a full alternative to crushed gravel and for hydraulic structures, such as the reinforcement of the banks of the Western Scheldt. Coke oven gas, blast furnace gas and converter gas must also be listed as by-products. Because of their energy content, they can be used as fuels in our own facilities instead of natural gas. The gas volume that is not used internally is transferred to the Electrabel power station nearby to be converted into electricity.

Residues are substances that are generated during the production process. They mostly contain iron and carbon (dust and sludge). We aim at maximising the reuse of these substances but have to consider their process-technical and environmental impact. By recycling these substances, we can economise on expensive raw materials such as iron ore and coal. During the steel production process sludge is also produced which can be reutilised as a raw material in the sinter plants. Sludge can also be converted into briquettes and added to the converter burden in the steel shop. Sludge can even be injected into the blast furnace.

Scrap is also produced at different stages of the production process, for example by the side trimmers in the cold rolling mills that cut the steel coils to the customer's requirements. Scrap is added as a coolant to the liquid hot metal in the converters of the steel shop, together with quality scrap purchased externally.

We strive towards converting all natural resources into products that are useful for society.

For residues that cannot be reutilised internally, we look for alternative useful applications in other industries. One of these substances is LD slag.

Clean and pure wood waste from our packaging lines for instance, is collected selectively. It can be used as a raw material for the production of chipboard. And although there is no legal obligation, plastic bottles, metal containers and drink cartons are also collected selectively for recycling.

All other substances for which there is no useful internal or external application are carefully collected and processed externally.



Main raw materials		2011		Products		Recycled gases	
Coal	1,578,472 t	<b>Coking plant</b> Coke	1,247,974 t	Benzol Tar Sulphur	8,584 t 48,577 t 2,176 t	Coke oven gas for internal use	10,010,401 GJ
Iron ore Coke breeze Anthracite Limestone	5,042,623 t 74,705 t 257,599 t 261,400 t	<b>Sinter plants</b> Sinter	5,835,154 t				
Pulverised coal	744,760 t	Blast furnaces Hot metal	3,981,986 t	Blast furnace slag	1,124,952 t	Blast furnace gas for internal use Blast furnace gas for power station	5,895,508 GJ 14,406,431 GJ
External scrap	557,250 t	Steel shop Liquid steel	4,470,339 t	Steel slag	387,056 t	Converter gas for internal use Converter gas for power station	1,983,684 GJ 988,097 GJ
		Hot strip mill Hot rolled coils	4,553,976 t	Finished hot rolled coils			
		Cold rolling mill and finishing lines		Finished cold rolled coils and sheets	2,786,330 t		

### Q.Why do we have an environmental management system?

• Since 2001, ArcelorMittal Gent has had an environmental management system that fully meets the requirements of the international ISO 14001 standard. In the late 1990s, the "easiest" environmental optimisations had already been realised and it had become increasingly difficult to continue to improve. That is why we implemented the environmental management system. It forced us to go about environmental management in a structured manner, starting with the identification of our environmental priorities. This helped us to conceive an environmental policy and set targets to ensure continuous improvement. After the implementation of the environmental management system, employees have become much more involved in environmental care: it has become everybody's business. Each production department is responsible for its environmental performance and every employee can make an impact.

Our environmental management system is audited every year by an external independent organisation which checks if we keep on meeting all requirements. The ISO 14001 certificate assures all external stakeholders, such as our neighbours, the authorities, suppliers and customers, that 'sustainable development' are no empty words.

In November 2011, the certification agency SGS S&SC conducted the annual ISO 14001 audit. No major or minor non-conformities were found but the audit team saw three opportunities for improvement.

# **Q.** How do we reduce $CO_2$ emissions?

A. Arcelor Mittal Gent produces steel via the blast furnace route. 74% of our CO<sub>2</sub> emissions are inherent in the blast furnace process. They are due to the mass balance of the chemical reactions taking place in the blast furnaces. Other CO<sub>2</sub> emissions are mainly the result of combustion processes. These can be reduced by increasing energy-efficiency. In this field, we are amongst the best performing companies in the world.

In the blast furnaces, iron ore is converted into liquid hot metal. Iron ore is composed of iron and oxygen. In the blast furnaces, oxygen is removed from the iron ore. This chemical reaction is called 'reduction' and uses coke and pulverised coal as fuels and reducing agents. The carbon present in the coke and pulverised coal binds itself to the oxygen that is extracted from the iron ore. As a result, liquid hot metal and blast furnace gas - containing amongst other substances CO and CO<sub>2</sub> - are produced. Because of the laws of chemistry, the quantity of iron ore that is converted into liquid hot metal is proportionate to the quantity of CO<sub>2</sub> that is produced. Therefore, there is only limited improvement potential to reduce CO<sub>2</sub> emissions by the blast furnaces. However, as is the case in any process, the blast furnace process does not run at full efficiency. Efficiency can be increased by optimising the process and choosing the most suited raw materials. The better we control the coke and sinter quality, the more we will increase the carbon efficiency of the blast furnaces and the more we will reduce CO<sub>2</sub> emissions. A CO, benchmark study carried out by Philip Townsend Associates, Inc. (PTAI) and ordered by Eurofer shows that in 2007-2008, ArcelorMittal Gent was amongst the most carbon-efficient companies in Europe.

Blast furnace gas, but also converter gas, coke oven gas, natural gas and limited quantities of fuel are used in various facilities. Resulting  $CO_2$  emissions are called combustion emissions. These can be reduced by increasing our energy efficiency.

Contrary to other materials such as plastic and aluminium, steel can be recycled infinitely. Sooner or later, steel will be reused in the production chain. Steel can be molten and processed into new products while maintaining its original characteristics. In the steel shop, the liquid hot metal coming from the blast furnaces is converted into liquid steel by burning the carbon that is still present in the hot metal bath. For this purpose, pure oxygen is blown on top of the hot metal bath. During this process, a large quantity of energy is released, which is used to melt scrap. This offers us a double bonus. Firstly, the energy which is released during the converter process is applied usefully. Secondly, as less liquid hot metal is required to produce liquid steel, CO<sub>2</sub> emissions per ton of steel are reduced. About 10 to 15% of the raw materials required for steel production are replaced by recycled scrap.

However, there will never be enough scrap to meet increasing world steel demand. That is why steel production via the blast furnace route remains necessary. In 2011, our global specific emissions amounted to 1.793 tons of CO<sub>2</sub> per ton of liquid steel produced. In comparison with other steel companies using the same technology, this is quite a good performance.

After the implementation of the environmental management system, employees have become much more involved in environmental care.

ArcelorMittal Gent was amongst the most carbonefficient companies in Europe.

### Q. Why have we been amongst the most energy-efficient companies in the world for years?

A. Steel production via the blast furnace route is energy-intensive. The different production steps, such as producing metallurgical coke, sintering the iron ore and the reduction process in the blast furnace itself, all take place at high temperatures and demand considerable quantities of fossil fuels. Then again, rolling steel slabs consumes much electricity. And still, we have been amongst the most energyefficient companies in the world

The Electrabel power station converts our blast furnace gas and converter gas into electricity.



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for years now.

Our motives are both ecological and economic. Society on the one hand is confronted with the greenhouse gas effect and climate change. At company level on the other, energy costs account for 25% to 30% of the total production cost per ton of steel. As energy prices are rising, the financial impact of energy savings increases. We are committed to producing steel in the most energy–efficient way possible.

In 30 years' time, we have succeeded in reducing our energy consumption per ton of steel produced by one third. In 1980, the production of 1 ton of hot rolled coils required 25 GJ of energy. In 2011 this figure dropped to beneath 17 GJ. This significant achievement is to be explained by our sound energy management. We invest in our facilities and processes to reduce energy consumption and we aim at recovering and reutilising a maximum of energy if this is technically and economically feasible.

In 30 years' time, we have succeeded in reducing our energy consumption per ton of steel produced by one third.

In September 2003, Arcelor Mittal Gent signed the Benchmark covenant with the Flemish government. In this way, we committed ourselves to be among the best performing companies in the world in the field of energy consumption per ton of steel produced. As a benchmark figure, a fictitious reference company was created by an independent expert combining the best-performing production departments of various companies. A company is considered to be among the best-performing companies in the world if its specific energy consumption does not exceed the energy consumption by this fictitious reference company by more than 10%. In 2011, our specific energy consumption exceeded the reference company's by 4.67%. This clearly shows that we have reached a very high level of energy efficiency.

Mid-2010, an important step forward was made in terms of energy efficiency when we commissioned the converter gas recovery unit in the steel shop. Energy-rich converter gas which used to be flared off is now recovered and reutilised. Part of the converter gas is used in various production facilities as fuel to replace natural gas. The remainder is used by the Electrabel power station nearby to produce electricity. This investment allowed us to reduce energy consumption by 0.7 GJ per ton of liquid steel. This is a 4% cut in our company's overall energy consumption.

In the same year, Electrabel commissioned a new power station, which converts blast furnace gas and converter gas into electricity. This new state-of-the art power station has an efficiency of over 40%. For comparison, the old power station that converted blast furnace gas into electricity only had an efficiency of 35%. Although the new power station has the same thermal capacity as the old facility, its production capacity is 25 MW higher.



# Q.How do we improve air quality?

A. Combating dust has always been one of the key elements in our environmental policy. This is proven by the performances we have achieved over the past years thanks to capital-intensive measures. Dust emissions nowadays amount to only 10% of the dust emissions in the late 1980s.

Looking at guided sources i.e. chimneys – we can see that considerable investments have been made into efficient dedusting facilities. We attach great importance to the maintenance and operation of these facilities so as to ensure dust is captured in the most optimum fashion. In 2011, we started the expansion of the casthouse dedusting system in one of our blast furnaces to improve dedusting efficiency. A sleeve filter will be added to the existing electrofilter. This environmental investment is worth 7.9 million Euros and will be completed in September 2012. In 2011, the local dedusting facility in sinter plant 1 was optimised in order to be able to meet the dust emissions limit of 20 mg/Nm<sup>3</sup> and still comply with environmental

legislation in the future, even though this is becoming increasingly stringent.

Over the past few years, particulate matter has been a hot topic – for authorities as well. Flanders is in a part of Europe that is characterised by relatively high dust concentrations. A study conducted by the Flemish Institute for Technological Research VITO shows that 70 to 80% of the measured dust concentrations in Flanders come from elsewhere. Indeed, Flanders is sandwiched between the industrialised areas of Holland, Germany and France.

Dust emissions nowadays amount to only 10% of the dust emissions in the late 1980s.

The Gent canal area is one of Flanders' hot spots. In practice, this means that the air quality standards for suspended matter PM10 (particulate matter having a grain size of less than 10 micrometres) are not always met. A recent study conducted by VITO as requested by the Environment, Nature and Energy Department of the Flemish government shows that our company is responsible for about 10% of particulate matter measured in the ambient air.

In 2005-2006 we had VITO analyse our company so as to identify the main sources of dust and obtain valuable information on how to combat dust emissions effectively. This research revealed that diffuse emissions have the greatest impact on the air quality in the vicinity of our company. That is why over the past few years we have been focusing on combating these diffuse emissions. In order to coordinate all actions and give priority to those with the highest yield, the environmental management department, in cooperation with all relevant departments, drew up a dust reduction plan that includes the following measures:

- Raising awareness of our staff in the raw materials, harbour and transport department as they are directly involved in the unloading and treatment of raw materials
- Enclosing dropping points in the conveyor belt network
- Spraying water on unpaved roads during dry spells
- Creating a coating (crust) on top of the raw material stacks during dry and windy spells to combat wind erosion
- A thorough swiping pro-

gramme to keep roads dustfree

- Avoiding spilling raw materials
- Weather alarms
- Investing in a new grab ship unloader equipped with a spillplate, wind screens with spray system, and automatic grab mode with filling ratio and scissor grabs

All other types of emissions, such as  $NO_x$ ,  $SO_2$  and dioxin emissions, are closely monitored through an intensive internal measuring programme. This is how we can monitor the performance of our production and treatment facilities and intervene if needed. In terms of  $NO_x$  and  $SO_2$  emissions, we also work proactively and select raw materials with relatively low nitrogen (N) and sulphur (S) contents.

#### Each cubic meter of water that is taken in, is used about 25 times.

# Q. How do we limit water consumption?

A. The steel production process does require quantities of water, which is used as cooling water, process water and in environmental-technical applications. Since water is a natural resource, it is important that we use it as economically as possible.

As high temperatures are part of the steel production process, our facilities need cooling. Just think of the engines in the sinter plants, the shell of the blast furnace, the converter in the steel shop and the rolling stands in the hot strip mill.

Process water is used during the production process itself. Examples include the water we use to quench coke, to granulate blast furnace slag to produce blast furnace sand, to remove the scale layer from slabs in the hot strip mill and water that is used for steam production. For environmental purposes, water is used to combat dust (e.g. for sprinkling unpaved roads during dry spells or in the spray system installed on unloading cranes) and in the gas treatment facilities in the blast furnaces and the steel shop.

The Gent-Terneuzen canal is our main source of water. Canal water is taken in at the north side of our company land and is used in counterflow with the production process before it is discharged near the southern boundary of our territory. Each cubic meter of water that is taken in, is used about 25 times. This requires numerous water treatment facilities, water towers and cooling towers. In the mid-1990s, we launched a multi-annual project, which doubled our water recycling rate compared to the 1993 level. In 2011, about 20.5 million m<sup>3</sup> of canal water were pumped and about 11.9 million m<sup>3</sup> were discharged.

In the past, groundwater was also used for various applications. Wherever possible, we have taken measures to use canal water instead. This is how we have managed to reduce the groundwater intake by half over the years (from 2 million m<sup>3</sup> per year to 1 million m<sup>3</sup> per year). Nowadays, groundwater is only used for safety reasons. At a number of locations, the groundwater level needs to be controlled to avoid contact with liquid hot metal or liquid steel, which could cause explosions. This is done by safety drainages. To prevent this groundwater from going to waste, we use it in a number of quality-critical applications.

In 2011 our specific water consumption amounted to 4.9 m<sup>3</sup> per ton of liquid steel. In terms of water consumption, we are amongst the most efficient integrated steelworks in the world. This is shown by the "Water management in the steel industry" report issued by Worldsteel in 2011. This report includes data from 29 steel companies across the world.

Industry and nature in perfect harmony.

Q. How do we reconciliate industrial activities with nature conservation on our company premises?

A. Arcelor Mittal Gent's company premises cover a surface area of about 850 ha. Thanks to efficient environmental planning, only half of this surface area is used for industrial purposes (production facilities and the storage of by-products, semi-finished and finished products).

The other half is in fact a belt of rich woodland used as a buffer between our industrial activities and the surrounding region. Over the years, there has been continuous afforestation. Here you can mainly find highquality native deciduous trees such as oak, birch, ash, poplar, black alder, willow and many others. Together with the flora, a rich fauna has developed itself on our premises. Game (such as rabbits and pheasants) make up approximately 10% of the animal population, but hedgehogs, squirrels, herons, buzzards, toads, shelducks, black-headed gulls and many other rare and common types of birds have found the site to be an excellent habitat as well.

Although the land is barely 50 years old and for the most part has been artificially raised, the fauna and flora have been able to develop well. We also have a chartered forester who is responsible for land management.

Half of our surface area is in fact a belt of rich woodland used as a buffer between our industrial activities and the surrounding region.



S-in motion is a new concept designed for car manufacturers that want to build lighter, safer and environment-friendlier cars for the 21st century.

### Q.How does innovation focus on the environment?

A. Product development and innovation go hand in hand. They are a necessary condition for sustainable business. Together with the research centres within the ArcelorMittal Group, we are exploring new ways to tailor steel to customer requirements. Furthermore, safety and the environment play an important role in the development of new products.

About 40% of our steel products are destined for the automotive industry. Car manufacturers are constantly looking for ways to reduce the weight of vehicles so as to minimise fuel consumption and CO<sub>2</sub> emissions. As the car bodywork is the largest and heaviest component of a car, it makes sense from an environmental point of view to reduce its weight. Car manufacturers impose increasingly stringent demands on their suppliers in the area of costs, energy consumption, safety, sustainability and recyclability of the materials used. Therefore, steel has to compete with alternative materials, such as aluminium and synthetic materials. When the customer has a choice between different materials. his decision will inevitably be based on the price of the raw material that is used, the life cycle of the product and the recyclability at the end of this life cycle.

These past few decades, steel manufacturers have worked together with the automotive industry and have succeeded in significantly reducing the weight of the car bodywork. Over the last few years, the steel product range has changed beyond recognition because of market demand and competitive pressure. Compared with seven years ago,



60% of our products are new developments or fundamental modifications to existing steel grades. Modern high-strength steels are of superior quality and are more deformable in spite of their increased strength, which enhances processability. On the basis of specific characteristics we can make a distinction between high-strength steels, ultrahigh-strength steels and advanced high-strength steels. About half of our products are ultrahigh-strength steels.

The most recent solution developed by ArcelorMittal for the automotive industry is called S-in motion. The use of advanced high-strength steel allows us to significantly further reduce the weight of the so-called body-in-white. The body-in-white is the car bodywork without the closing parts. The technology of S-in motion can also be used for weight reduction of other parts, such as moving parts and chassis components.

Weight reduction is also becoming increasingly important in freight transport. In collaboration with our customers, ArcelorMittal has developed Trailtech, as a solution for producing lighter trailers and for reducing both production and application costs.

Arcelor Mittal R&D engineers have also conducted a feasibility study for reducing the tare weight and maintenance costs of freight wagons. Results of this study are looking promising. This advanced solution uses highstrength and ultrahigh-strength steels and is expected to reduce  $CO_2$  equivalent emissions per ton of goods shipped by 40%. For an increasing number of applications, our steel requires additional treatments after cold rolling. To protect the steel against corrosion, a layer of zinc can be applied. An additional protective layer prevents the zinc layer itself from corroding and gives the product the desired look. Moreover, we can paint our steel products. Organically coated products are increasingly used for wall covering. Atmospheric resistance is one of the key requirements.

In the past, all these protective coatings contained chromium-VI and/or heavy metals. Subsequently, when it was discovered that chromium-VI can be harmful to the environment and to human health, the European Union issued a number of new directives to reduce and even ban the use of these substances. In the past few years, ArcelorMittal R&D centres have focused on finding alternatives to heavy metals and especially chromium-VI for post-treatments that are applied in the galvanising lines or in the organic coating line. This is how the Nature range was developed: sustainable pre-painted steel products suited for all kinds of indoor and outdoor applications. Just think of cladding, roofing, gutters, wall panels, lowered ceilings and light fittings. The Nature range is 100% free of Chromium-VI and heavy metals.

#### Did you know that

... a 100 kg weight reduction of a car equals a 6% cut in CO<sub>2</sub> emissions per km? The first coil of xcellook: brushed galvanised steel with a stainless look.

# Q.How do we tie customers to our company?

 Innovation is key to ensure the future of our company. Our ambition does not lie in the production of commodities with limited added value, but in the production of challenging products with high added value. Our aim is to become the reference company in the field of high-strength steels. It is our strategy to prepare our production apparatus for products in high demand. Process innovation is a prerequisite for product innovation and is a driving force for progress.

Together with the steel research centre OCAS we are also looking to find the most suited product for any non-automotive application. One suiting example of this is xcelcoat, which can be used as an alternative to stainless steel. The brand name xcelcoat covers in fact three steel products with high added value that excel in terms of aesthetics and roughness. In the case of xcellook, galvanised steel is brushed to give it a stainless look. This



Setting top delivery time performances is another way in which we can make a difference for our customers. Short delivery times can be guaranteed to customers located within limited distance of our company. In practice, this means that some customers can place their orders shortly before they are due for delivery, regardless of the capacity utilisation of the production lines at that time. This way of working has its advantages for both parties. On the one hand, our customers can react more flexibly to demands by their own customers and at the same time reduce internal stocks. On the other hand, we are certain that orders will be placed even in periods of low economic activity. We aim at selling 15% of our order book to non-automotive customers as short lead time orders. Our customers are quite satisfied with this offer. In the end, short lead times will tie customers to our company and protect us against cheap steel imports.

Another project to improve customer service is the Direct Link. A Direct Link is a customer's direct contact person inside a production site. Before, customers turned to the geographically spread commercial offices which in turn contacted local plants. The Direct Link initiative speeds up the exchange of information with customers and enhances the feedback towards the production planning. In this way, our relationship with our customers is further developed. Service cannot be seen apart from quality. Delivery time performances cannot be improved at the cost of quality and vice versa. In 2011, our quality performance was better than in 2011. Projects launched by a dedicated working group in several departments have paid off. In comparison with 2010, the volume percentage of first choice material shipped increased by 1.1% in 2011 and reached 96.9%.

Our ambition lies in the production of challenging products with high added value.



Flemish Minister Ingrid Lieten, Sven Vandeputte (OCAS), Luc Moens (Gent University) and Wim Van Gerven (ArcelorMittal Gent) reveal the logo of the new Materials Research Cluster Gent.

#### Materials Research Cluster Gent increased the speed to market of innovations

On 20 September 2011, Ingrid Lieten, Vice-Minister-President of the Flemish government and Minister for Innovation, Public Investment, Media and Poverty, opened the Materials Research Cluster Gent. This is a joint venture between the Ghent University, the Collective Centre of the Belgian Technology Industry (Sirris), the Belgian Institute for Welding Technique (BIL), the cluster of metalprocessing companies (Clusta), the Centre for Research and Metallurgy (CRM), the Strategic Initiative Materials Flanders (SIM) and the Flanders Material Centre (Flamac). Over 200 scientists and technologists share their knowledge and experience to increase the speed to market of innovations.



Mark Fisette (COO Finishing) during a visit to the organic coating line to view the progress made within the framework of World Class Manufacturing.

Two crane runway girders in the cold rolling mill were completely renewed.

#### Q.Why is cost leadership so important for our future?

A. Cost leadership is absolutely required for attracting orders and new investments.

Personnel and energy costs in Belgium are high, which is a handicap compared to other countries. Because of the economic crisis, we remain forced to control costs and minimise expenditure. 2011 clearly showed that our cost position is good when production levels are high. We can take matters into our own hands: by ensuring optimum operations in the coking plant, blast furnaces and steel shop and by choosing the correct working points depending on the availability of raw materials, we can optimise the hot metal cost. In every

following production step costs must be kept to a minimum. This requires high reliability. When budget is restricted, the right priorities need to be defined and maintenance projects need to be carried out cost-efficiently.

In 2009, the Plan 2009 was launched to stand up against the economic crisis and ensure long-term competitiveness. The plan aimed at increasing efficiency, ensuring flexibility and putting out a number of specific activities. It entailed a workforce reduction by 987 full-time equivalents over a three-year period (by the end of 2011) using natural attrition, (early) retirement schemes and a voluntary separation programme. The reduction target was reached and to be able to develop our new organisation, we took on 265 new employees last year.

One important component in the "Plan 2009" is the maintenance transformation. A new maintenance organisation was

conceived to decrease structural maintenance costs. This also led to organisational changes. The new maintenance standard operating procedure must allow us to develop a sound maintenance plan that will ensure the reliability of our facilities. In the current economic circumstances. World Class Manufacturing (WCM) is an important tool to boost our company's competitiveness. The WCM methodology is indeed used to increase efficiency and reduce costs. In 2011, we worked hard on several WCM pillars. Now WCM must be further integrated into our daily operations. WCM continues pushing us forward.

Cost leadership is absolutely

required for attracting orders

and new investments





### Q.What investment projects did we complete in 2011?

This team commissioned the new coke guide car in the coking plant.

A. Because of the economic crisis, our investment resources were limited. However, we invested no less than 65 million Euros in 2011 and are preparing some strategic projects in the steel shop, the hot strip mill and the cold rolling mill.

In 2011, a number of major investments were completed:

- The electric revamping and automation of a stackerreclaimer and the replacement of the trailer of an other stacker-reclaimer in the raw materials zone.
- The installation of a new cokeguide car, a new dedusting hood and a primary gas cooling unit in the coking plant.
  The installation of an elec-
- The installation of an electromagnetic actuator in the mould of line 3 in continuous casting line 2. As the efflux is more stable, this enhances the slab surface quality, even at high casting speed.
- The commissioning of a new roll tong in the hot strip mill.
- The electric revamping of inspection line 3 in the hot strip mill and the commissioning of a brushing unit integrated in inspection line 3 for the production of brushed galvanised steel.

# The following projects were started in 2011 and will be completed in 2012

- The optimisation of the primary coke oven gas cooling system to improve coke oven gas quality.
- The installation of an intensive mixer in sinter plant 2
   to boost productivity, which had declined after we started using smaller ore fractions.
   The intensive mixer is placed before the existing mixer and pelletiser so as to optimise the grain size of the ore mixture.
- Boosting the pulverised coal injection capacity into the blast furnaces so as to reach high productivity using smaller quantities of expensive coke purchased externally.
- The expansion of the casthouse dedusting facility in blast furnace A: commissioning a new extraction hood and sleeve filter will significantly reduce dust emissions.
- reduce dust emissions.
  The installation of a fixed laser measurement device on both converters in the steel shop to measure the thickness of the refractory lining in the converter. The measurement results will allow us to reduce lime consumption and slag production.
- The revamping of pickling line
   1 in the cold rolling mill to
   increase the material yield and
   boost productivity.
- The revamping of the automation of the TTS line in the cold rolling mill.
- Phase 3 of the ACE project (Automatic Crane Engine): the automation of two cranes in the hall of packaging line 4 and two cranes in the hall of the organic coating line Decosteel 2. The ACE project has

been designed to reduce operational costs in the cold rolling mill by automating cranes in the coil storage areas.
Phase 2 of the high-speed galvanising project in hot dip

- Phase 2 of the high-speed galvanising project in hot dip galvanising line 2, which aims at boosting productivity by increasing the line speed from 180 m/min to 240 m/min. This is an R&D piloting project which was allocated to our plant by Elat Carbon Europe
- Various projects in the organic coating lines Decosteel 1 and 2 to reduce costs and improve delivery time performance.
- delivery time performance.
  A new 150 kV supply line to the oxygen plant to avoid any future overload of the electricity grid.
- A new 150 kV supply line between the substation of the Rodenhuize power plant and our company.

#### In the course of 2011, the ArcelorMittal Investment Approval Committee approved a number of big investment projects:

- A new trunnion ring and vessel for the converter in the steel shop, allowing us to increase the converter load.
- The replacement of overhead crane 311 in the hot strip mill.
- New powerful AC engines for two stands (F2 and F5) of the finishing mill in the hot strip mill.

In the same week, the Flemish and Dutch authorities signed a financial agreement on the construction of a new large and deep sea lock in Terneuzen. Thanks to this sea lock, the port of Gent – and our company – will become accessible to seaborne vessels with a maximum deadweight of 150,000 tons. The current deadweight capacity is limited to 88,000 tons. The construction of a second, large sea lock in Terneuzen is needed to ensure the maritime future of the port of Gent. After the signing of the agreement, the planning and design phase is starting. This would take two or three years.

Sidgal 2 will be the first hot dip galvanising line in the world that can operate at a line speed of 240m/min.





# Production figures

In thousands of tons	2010	2009	2008	2007
Harbour activity (loading/unloading)	11,324	8,028	12,065	12,921
Dry coke	1,222	1,038	1,254	1,269
Sinter (net)	5,677	3,659	5,336	5,522
Hot metal	3,814	2,751	3,690	3,914
Liquid steel	4,394	3.044	4,182	4,511
Slabs	4,292	2,958	4,084	4,375
Hot rolled coils	4.340	3.222	4,383	4,395
Pickled and oiled	1,190	809	2,107	2,055
Full-hard	2.704	2.063	2.733	2.858
Hot dip galvanised	1.057	889	1.200	1.260
Organically coated	112	101	131	143
Organically coated	110	70	119	116
Electrolytically galvanised	403	337	338	394
	4,282	3,141	4,345	4,516

\*shipments of steel products manufactured by ArcelorMittal Gent and destined for customers

Woodworks teacher Mario Boes in dialogue with one of the 'residents' of The Kromme Boom. The Kromme Boom is a unique project that takes care of people in need, whose future is regarded hopeless by society.

# Enriching our communities

Every company that seeks to implement sustainable development must be aware of what is going on elsewhere in the world. We want to make an active contribution to society to increase welfare and overall well-being. We participate in sustainable community development by for instance combating poverty or creating training opportunities for people who find themselves on the brink of society.

# Enriching our communities

The ArcelorMittal Foundation selected three employees from ArcelorMittal Gent to take part in the Solidarity Holidays.

#### Q. Why do we pay attention to what is going on elsewhere in the world?

 ArcelorMittal Gent is a founding member of the Corporate Funding Programme (CFP). This a network of Belgian companies and non-governmental organisations. The CFP wants to contribute to welfare in the South and close the gap between North and South. It aims at supporting profitable business projects in developing countries, so as to stimulate local employment and economic activity. The CFP's motto is: "Companies support sustainable development". By bringing together the expertise in project management offered by big companies and the field knowledge of non-governmental organisations, the CFP focuses on supporting projects that can boost local economy in a sustainable manner.

Besides structural sponsoring, we also support specific CFP projects, such as the Brussels 20 km run, which raises money for enterprising women in Senegal. On 27 May 2012, 45 employees of Arcelor Mittal Gent will participate as a team and raise money for charity. This financial support will provide the women in the region of Fatick, Senegal, the opportunity of receiving a microcredit to develop their business, by for instance purchasing a sewing machine, a bicycle or equipment.

In March 2011. Arcelor Mittal Gent welcomed Somen Debnath. This 27-year-old Indian is travelling around the world on his bicycle to raise awareness for HIV. 17 Dollars. That was all Debnath had in his pocket when he left the Indian state of West Bengal for a journey around the world on 27 May 2004. At present, he has visited no less than 57 countries and travelled over 80,000 km. Wherever he stops, Debnath organises workshops and lectures for anyone willing to find out more on aids prevention. For his initiative, Debnath receives financial and material support from authorities, universities, schools, social organisations and companies, including ArcelorMittal. Our company also made a financial contribution.

Early 2011, the ArcelorMittal Foundation launched the Solidarity Holidays programme. This initiative gives ArcelorMittal employees the opportunity

to dedicate part of their annual holidays to volunteer work by helping in a humanitarian project of the ArcelorMittal Foundation in a foreign country. In this way, ArcelorMittal employees get to experience international volunteer work in practice and help people in need, while being submerged in different cultures. The ArcelorMittal Foundation selected three employees from ArcelorMittal Gent to take part in this initiative. They helped out in a local health centre in Senegal or built houses for the local community in Haiti. The ArcelorMittal Foundation is a non-profit organisation founded by the ArcelorMittal Group in 2007 to support projects in regions where we have business operations.

ArcelorMittal Gent is a founding member of the Corporate Funding Programme that supports profitable business projects in developing countries.



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Roel Timmerman and Peter Ameye, both employed by ArcelorMittal Gent, participated in a Solidarity Holiday in Haiti to build houses for the local population.

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### Enriching our communities

### Q.Which local projects do we support?

A. Arcelor Mittal Gent does not turn a blind eye to social challenges closer to home either: we support various social projects to combat poverty and create training opportunities for people who have ended up on the verge of society.

 The 'Kromme Boom' is in many ways a unique care project. It helps people in real distress who can no longer function in society. Often they have a history in institutions, sometimes even prison. At the Kromme Boom, these inhabitants are offered a total package of living, working and relaxing – in short: the ability to cope independently –, so they learn how to live a normal life and take back their place in society. The Kromme Boom creates in fact a miniature society that gives people the chance to feel useful again. They regain their self-respect and confidence to face real-life society. This project is atypical since it does not follow the normal employment path. None of the staff members at the Kromme Boom are trained therapists. The Kromme Boom also refuses to pin labels on the people it addresses. That is why this non-profit organisation is not subsidised and depends entirely on aid and (financial) support from third parties. No less than 4,000 addresses support the Kromme Boom, including private people and companies such as ArcelorMittal Gent.

ArcelorMittal Gent collected

1 ton of clothes and toys for

Spullenhulp.

 ArcelorMittal Gent supports the non-profit organisation called Uilenspel, which organises homework support for underprivileged children in Sint-Amandsberg or GentDampoort (two neighbourhoods in Gent). Underprivileqed and foreign children often find it difficult at school and have one bad school experience after another. Just a little bit of extra support can separate failure from success. About 70 volunteers spend one hour per week teaching children school skills in a fun way. Our employees could also sign up as volunteers for Uilenspel, since the organisation is planning on expanding in 2013 and setting up homework support in the municipalities of Zelzate and Assenede as well

 On 2 December 2011, the Arcelor Mittal Foundation organised the worldwide Volunteer Day. We contributed by collecting used clothes and toys and donating these to Spullenhulp. This organisation helps over 1,500 people and families every year to abandon poverty for good. Spullenhulp



The Kromme Boom creates in fact a miniature society that gives people the chance to feel useful again.

We support various social projects to combat poverty and create training opportunities for people who have ended up on the verge of society.

also has a homeless shelter. About 45% of residents there leave the shelter in good conditions, having an official job or sufficient income to have a house of their own. In this way, they can build a new future for themselves.

Besides poverty reduction projects, we also support health initiatives.

- During last year's Ascension weekend, we had a team consisting of four employees participate in the 1,000 km bicycle tour for the 'Fight against Cancer' initiative. This tour across all Flemish provinces consists of four rides of 250 km each, which all start and finish in the city of Mechelen. By participating in this event, you realise that people who suffer from cancer have much more difficult challenges to overcome than a 250 km ride. All of the profit of this competition is invested in scientific research into cancer. ArcelorMittal Gent will also support this initiative in 2012.
- On 11 September 2011, the 'Foulées Grand Large' race was held for the 24th time in Mardyck, near ArcelorMittal Dunkerque. By organizing this competition, ArcelorMittal supports bone marrow donation. Every year, 800 runners take part in this competition. Every runner pays a starting fee of 3 Euros to support 'France Greffe de Moëlle'. This organisation manages the database of voluntary bone marrow donors and actively looks for new donors. About



20 employees of ArcelorMittal Gent participated in the race as well. Our company also supported this initiative financially.

 The non-profit organisation Special Olympics Belgium annually organises championships for mentally disabled athletes, with our company's financial support. The event is alternately organised in Flanders, Wallonia and Brussels. The 2011 edition took place in the province of Limbourg. The non-profit organisation called Uilenspel organises homework support for underprivileged children.

In 2011 four employees of ArcelorMittal Gent participated in the 1,000 km bicycle tour for the 'Fight against Cancer' initiative.



#### Enriching our communities

#### Q.How do we enhance integration into the region?

A. In order to promote our company's integration into the region, in 2011 we set forth the tradition of organising external events:

- On Saturday 25 June 2011, the port of Gent participated in the second Flemish Open Port Day. Visitors could experience the port of Gent from the inside by participating in visits, demonstrations, walks, bicycle rides, free bus rides and boat trips. Our company also participated in the event and we organised company tours for about 500 people. Afterwards, they could eat a bite and have a drink in a tent. All profit from catering was donated to the Gent training centre for trades (GOCA, Gents Opleidingscentrum voor Ambachten). This centre teaches people trades to help them find a job in the sociocultural or economic sectors.
- On Sunday 2 October 2011, we participated in Company Discovery Day. 2,700 people visited the continuous casting line and the hot dip galvanising line. We were included in the Innovation track and presented the electromagnetic actuator in the continuous casting line. This innovative project led to a breakthrough in terms of quality. Every year, there is also a central theme. This year, Company Discovery Day focused on "Materials in motion". With this initiative, Company Discovery Day focused on companies that work on ecodesign, that close the material cycle or that operate eco-efficiently. Our company could not be excluded from this list. After all, steel is a very suiting example, as it can be recycled infinitely. Our company was one of the five

nominees for the "Materials in Motion" Award. Every year at the occasion of Company Discovery Day, we support one charity initiative. This year, all profit from catering was donated to Voedselondersteuning Gent, which supports all initiatives taken in the vicinity of Gent to improve the food offer for the less fortunate

Every two years, we organise an Environmental Meeting Day during which we inform our neighbours, local residents' groups, environmental councils, nature associations and the general public on our environmental management. In October 2010, this event was organised for the fourth time and the main theme was energy. The next Environmental Meeting Day will take place on Saturday 6 October 2012.

ArcelorMittal Gent also supports various cultural events in the region, such as the Festival of Flanders, the Gent Jazz Festival and the Light festival.



Once a year we open our doors to the public at large by taking part in the Company Discovery Day on the first Sunday of October.

Wim Van Gerven in dialogue with his assistant. The openness and accessibility of managers have great impact on the motivation and commitment of our employees.

#### **Transparent** governance

Our corporate strategy, our business and our daily activities are underpinned by transparent governance. We want to be acknowledged for our irreproachable behaviour towards our employees, customers, business partners and the society.

#### Transparent governance

Fair and ethical business practices are at the heart of the Arcelor/Mittal way of working.



On 1 April 2012, Kristian Notebaert became 'Chief Operational Officer' (COO) Primary of ArcelorMittal Gent.

### Q.What ethical standards do we observe?

• Fair and ethical business practices are at the heart of the ArcelorMittal way of working. These principles are enshrined in our Code of Business Conduct, which applies to all plants and all employees across the globe. The Code of Business Conduct must help us understand the ethical and legal obligations we must meet doing business. The Code of Business Conduct describes the basic values and ethical standards every ArcelorMittal employee across the globe must observe. Every new recruit receives the Code of Business Conduct upon hiring and subscribes to these principles.

### Q.How do we deal with human rights?

A. In 2011, all employees at ArcelorMittal Gent received a letter at home about the ArcelorMittal Human Rights Policy. In this letter, the Management Committee asked all employees to read this policy carefully and apply its principles correctly. An online training module was also created which can be consulted by employees through the intranet.

#### Q. How is our management organised?

A. On 23 May 2011, Lakshmi Mittal, CEO and President of the ArcelorMittal Group, announced changes in the Group Management Board. On 1 June 2011, Chief Financial Officer Aditya Mittal became responsible for Flat Carbon Europe, Investor Relations and Communication.

The Management Committee of ArcelorMittal Gent consists of:

- Wim Van Gerven, CEO of ArcelorMittal Gent and Chairman of the Management Committee
- Patrick Deforche, COO (Chief Operational Officer) Primary, responsible for all production departments in the hot phase.
- Marc Fisette, COO Finishing, responsible for all production departments in the cold phase, and for customer relations and quality management.
- Guy Bontinck, HR Director, responsible for personnel management, management development, and training and education.

On 1 April 2012, Patrick Deforche, Chief Operational Officer Primary of Arcelor Mittal Gent, was appointed Chief Technology Officer (CTO) of the Business Division East. Patrick Deforche was succeeded by Kristian Notebaert.

ArcelorMittal Gent has a Cor-

Committee meetings.

porate Responsibility Coordinator who reports to the CEO. Corporate Responsibility is an integrated part of our business activities. We support a wide range of local initiatives, in which our own employees are often involved. Moreover, we support initiatives in developing countries, for instance through the Corporate Funding Programme. These Corporate Responsibility initiatives are frequently discussed during Management

Until 31 March 2012, the Management Committee of ArcelorMittal Gent consisted of Guy Bontinck, Wim Van Gerven, Patrick Deforche and Marc Fisette.



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## Q. How do we communicate with our employees?

A. We strive towards communicating openly and transparently with our employees on corporate matters. This does not only increase commitment but also overall job satisfaction. Our employees are informed through various channels.

Flash newsletters (Sidmar Berichten) are distributed on a regular basis to quickly inform them on current affairs. Moreover, information is shown every day on information screens inside the production departments. These LCD screens display a wide range of both corporate and departmental information: global safety results, customer visits and events (corporate information), planned maintenance, new recruits etc. (departmental information). By publishing our '1' personnel magazine, we inform our employees every month on our company's objectives, on what happens to our products after they have been shipped (customers), on our efforts in terms of safety, quality, training, costs and on the common vision and values of the Arcelor Mittal Group (feeling of belonging). In our personnel magazine, we focus on people. By interviewing people who worked on a project on the shop floor, employees with particular hobbies, retired colleagues... we make it clear that we would not have come this far without the contribution of each and every employee.

Twice a year – in January and in June – the Management Committee issues a policy statement. Traditionally, mainly white collars attend this gathering although all employees are invited. Afterwards, the heads of department organise meetings at departmental level in which they pass on the key messages from the policy statement and elaborate on their own departments' performances.

Because the policy statement offers a good view on the company and the context in which we operate, it was decided in 2011 to further disseminate the key messages to the shop floor. That is why additional information sessions were organised at departmental level. First, there was a short presentation built around six strategic axes: (1) health, safety and environment, (2) management and HR, (3) market share and customers, (4) cost leadership, (5) raw materials and energy and (6) technology and innovation. Then, employees had the opportunity of asking questions and engaging into direct dialogue with management. These information sessions have been well received and will be continued.

In order to enhance the flow of information, every month an information package is distributed containing background information on the six strategic axes. This package is shown on the information screens and is also commented on by management during regular meetings.

It goes without saying that these central communication initiatives mainly play a supporting role. Direct interaction between employees and their supervisors, the openness and the approachability of these supervisors have much higher impact on daily operations and on employee motivation and commitment.

#### Transparent governance

#### Q. How do we communicate with the public at large?

A. Not only internal stakeholders (our employees) but also external stakeholders demand proactive, open and transparent communication. By external stakeholders we typically mean our neighbours, students, applicants, schools and universities, customers, suppliers, the press, associations and official bodies.

Their prime source of information is our company website (www.arcelormittal.com/gent), which contains a vast array of information on our company, for instance on the production process, the efforts we put in to improve our health and safety performance, our environmental care and our importance in terms of employment. Publications such as this Corporate Responsibility Report will also prove a valuable source of information for them. As is the case with our employees, we also want to engage in a dialogue with external stakeholders. Company visits provide us with the ideal opportunity. In 2011, we organised over 200 company visits, mostly for customers and students. However, specialised environmental visits can also take place.

Once a year, we invite the public at large to visit our company during Company Discovery Day on the first Sunday in October. Every two years, Company Discovery Day is preceded by an Environmental Meeting Day. On Saturday, we inform our neighbours, local residents' groups, environmental councils, nature associations and the general public on our environmental management. The next Environmental Meeting Day will take place on Saturday 6 October 2012, followed by Company Discovery Day on Sunday 7 October 2012.

When information meetings are organised for neighbouring municipalities and for the entire province of East Flanders on themes relevant to our company, we participate in these meetings. In addition, we take part by special invitation in information meetings organised by third parties.

Should local residents have any environmental complaints, they can contact us directly or call the special green number for the Gent canal area (+32 (0)800/22.999). All environmental complaints we receive are investigated on an individual basis. On the basis of the information provided, we assess whether the problem is caused by failures in the production processes. If this is the case, we do our utmost to reduce these consequences to a minimum. In addition, even if it shows that we are not responsible for the environmental nuisance, we give an appropriate answer to the person who initially made the report.

If you would like to know more about our company, please contact us through our website: www.arcelormittal.com/gent



Robrecht Himpe (CEO of Flat Carbon Europe) presents the Performance Excellence Award to Peter Destexhe of ArcelorMittal Gent.



# **Q.** How are we publicly recognised for our achievements in the field of Corporate Responsibility?

A. 'There is an undeniable link between 'Performance Excellence' and the Group values. Every year, ArcelorMittal presents the Performance Excellence Awards to sites that put up outstanding performances. In 2011, ArcelorMittal Gent was presented with two Performance Excellence Awards:

. Health and Safety: retraining of employees who did not comply with the Golden Rules With this positive safety initiative, we retrain employees who did not comply with the Golden Rules. They also have to complete a self-assessment and take part in a safety project within the framework of World Class Manufacturing.

. Technological innovation and Research & Development: crane automation project

This project has been designed to reduce operational costs in the cold rolling mill by automating cranes in the coil storage areas. 24 cranes are in scope, 13 of which have already been automated.

The East Flanders Environmental Charter was initiated by the East Flanders Chamber of Commerce to encourage companies to pursue an active environmental policy aimed at improving the environment and the living conditions in the region. Companies step in voluntarily. Complying with environmental regulations is a basic condition to be allowed to participate.

In 2011, Arcelor-Mittal Gent was presented with two Performance Excellence Awards.

When we take part in the initiative, we must set clear objectives and stipulate the necessary actions to be taken for at least four out of the ten environmental issues included in the Environmental Charter. At the end of the action year, an assessment team, composed of representatives of various environmental authorities, visits the company to inspect whether the proposed actions have been achieved and legal requirements are still met. If both conditions are fulfilled, we are awarded the Environmental Charter Certificate.

To us, the Environmental Charter is a continuation of the environmental management system. It makes us define clear objectives and determine concrete actions which must be completed in short term (1 year). We have been taking part in this initiative since 2003 because it is another incentive to continuously improve our environmental performance, which is the overall goal of the ISO 14001 standard.

In 2011, we were presented with the Environmental Charter certificate for the 8th consecutive time. It was a renewed confirmation of the effectiveness of our environmental management system and an objective way of highlighting our environmental efforts.





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