Bekaert is a major player in the off-the-road tire reinforcement market, which is growing fast as the level of quarrying and mining activity rises. With over fifty years’ experience as a steel cord producer, Bekaert is ideally placed to meet the specific needs of this market segment: complex structures of up to 50 different filaments that are strong enough to withstand extra-heavy breaking loads.
Activities overview

As a global player, Bekaert is active in more than 120 countries and on all major markets. Our company holds leading positions in both activities that are organized globally and those that operate at a regional level.

With some of the activities of our regional customers becoming increasingly international, our global presence is also a significant advantage for them.
Bekaert targets very different, geographically defined markets with an extensive range of specialized products. The majority of our wire activities are divided into four geographical segments: Europe, North America, Latin America and Asia. In each region, we adjust our product range to meet the needs and wishes of local customers, taking full advantage of the opportunities presented by the market, because we also aim for market leadership in these activities.

In North America and Latin America, for example, we sell fencing products, a market that has passed its peak in Western Europe. On the other hand, the plant in Zwevegem (Belgium) sells the majority of its various wire products, such as welding wire and wire for textiles, on its local European market.

**Europe**

In Western Europe, Bekaert focuses on specialties with high added value. Sales of coated low-carbon wire – such as bookbinding wire, champagne cork wire, thin galvanized wire, battery cage wire and pulp baling wire for the paper industry – were stable in 2007. As supplier of these products to local manufacturers, we have a competitive edge in the form of our technological leadership and dependable just-in-time delivery.

In industrial wires, such as coathanger wire, nail wire, bucket handle wire and cage wire, we are working to defend our position across Europe, to which our plants in Central Europe are making an increasingly significant contribution. Competition from Russia and more especially China, both of which operate within the US dollar zone, is bringing pressure to bear on our prices and market share, and exports are being held back by the strong euro.

High-carbon wires are used mainly in the construction industry (steel wire for elevators), the offshore sector (cable reinforcement) and the automotive industry. Sales of these products also suffered from the weakening dollar, which depressed prices of products sold outside the European Union. Competition from imports from Asia, especially Korea, also intensified.

Bekaert presented Bezina® 2000 coated wire to the market in 2007. With its improved alloy coating, corrosion resistance of this new product is double that of its predecessor Bezina®. By raising quality, we have gained a competitive edge over cheap imports.

**North America**

In North America, Bekaert faced difficult market conditions resulting from the weak dollar and the credit crunch.

We grasped the opportunities that arose in various market segments, such as bookbinding wire, airbag wire and conveyor components, a range which is also produced in Europe.

We also benefited once again from our strong position in hose reinforcement wire.

**Fencing: demand still high**

Our fencing products for the arable and livestock farming sector in North America sold well. The areas to be fenced are much larger than in Europe, requiring wire with higher tensile strength, which is one of Bekaert’s specialties. There is ample growth potential for these products in this region, which we are targeting with customer-focused product innovation.

Our fencing lasts longer and looks better, thanks to the colored corrosion-resistant coating we use. Our product quality, expert technical advice and reliable service have won us a substantial market share in North America for this product range.
Latin America

The economic mood in Latin America in 2007 was one of optimism, with some countries earning more from oil (Venezuela, Ecuador, Brazil) while others benefited from the higher price of copper and other ores (Chile, Peru).

Sales of wire products in the region remained high in 2007. Bekaert offers the complete range, from high added-value (nylon-coated) wires to commodity products such as welding wire and steel wool wire, for which there is still significant demand. Bekaert is particularly successful with its fencing wire and mattress spring wire.

Our success in Latin America is built on joint ventures. We do good business via our alliances with strong local partners, who contribute their market knowledge while we supply our talent for innovation, technological expertise and operational excellence.

Despite the strong real, which eroded our export competitiveness, we performed well in Brazil. Chile, the most open of the Latin American economies, had to cope with a rising tide of cheap Chinese imports in 2007.

Acquisition strengthens Bekaert’s position

A major event in Latin America in 2007 was our acquisition of Vicson, S.A. in Venezuela, which manufactures barbed wire and steel wire products for industrial components. The acquisition of 100% of Vicson also gave us an 87.5% interest in Colombian wire producer Proalco S.A. The Colombian economy is expected to develop rapidly in the coming years, creating attractive opportunities for growth.

Asia

From its beginnings in Asia in the production and sale of mainly steel cord, Bekaert is now manufacturing an expanding range of wire products for the local markets.

Indonesia: expansion

The Bekaert plant in Karawang (Indonesia), which entered service in 1998, was extended in 2007 with a new production line for galvanized steel wire. Part of its output will be used by the local paper industry for binding pulp bales. Other applications include fencing and cable reinforcement in the Asian region, from India and China to Japan and Australia. Production started in November and the line is now operating at full speed. It has also been decided to install a Dramix® steel fiber production line in 2008, also mainly serving the Asian market.
For customers who operate internationally, our global network offers significant advantages. They want to be able to buy high-quality products of a uniform standard at the best possible price, anywhere in the world. At the same time, they need local players offering just-in-time delivery who can respond flexibly to their requirements. With our global network, we are able to meet their needs perfectly. Global customers are fully supported by our global account managers.

If there is a shortage of capacity anywhere in the world because of peaks in demand, our global manufacturing footprint means we can release extra capacity elsewhere, which gives Bekaert a clear competitive advantage.

- One typical globally organized sector is the automotive industry, for which Bekaert is primarily a supplier of steel cord for tire reinforcement in a highly concentrated market. Because we also operate at a global level, we can accommodate any decisions tire manufacturers take regarding technology or capacity. Recent years have also seen the emergence of numerous Chinese players, serving the rapidly growing Chinese tire market, whose activities have a more regional focus.

- The offshore industry is another globally organized sector, which uses Bekaert’s flat and profiled wire to reinforce the flexible pipes employed in offshore oil and gas production and steel wire for anchoring platforms.

This is a market with a small number of players who operate virtually worldwide, and Bekaert is market leader in this specialty.

- We supply a range of top-class products to customers in the construction sector in all parts of the world where Bekaert is active. Dramix® steel fibers for concrete reinforcement, for example, are used worldwide.

Other products, such as window film or fiber products for burners, are more regional success stories, but have the potential for deployment elsewhere, in the same or different applications.

- Our customers are also active globally in other specific fields, including advanced materials (such as stainless steel), fiber technology, combustion technology and composites, and in certain wire products.

- We have a global customer base in the textile sector, where there are a number of growth markets and new products are being created in the mature markets. Several of Bekaert’s major customers for non-woven applications have a global presence.
The automotive sector

The automotive sector accounts for 35% of Bekaert’s sales, consisting largely of steel cord for reinforcing radial car, truck and bus tires. Another Bekaert product in widespread use in the automotive sector is fine cord for side-window systems. Bekaert also supplies specialized wire products for the component market, such as windshield wiper arms and blades, and the Original Equipment Manufacturer (OEM) market, such as valve spring and suspension spring wire.

The steel cord market is changing fast, as is the market addressed by our customers: the tire manufacturers and the automotive industry itself.

Because we sell one-third of our steel cord to the OEM market and two-thirds to the replacement market, we are less susceptible to cyclical movements in the automotive market.
Better steel cord means better tires

To counter rising energy prices and for the sake of the environment, the challenge facing tire manufacturers is to make a stronger and more flexible tire with less material, so that it is lighter and thus reduces fuel consumption. As the technological and market leader, Bekaert has been anticipating this trend for some time.

We have made many improvements to our steel cord in recent years. The improved filament geometry of Betru® (Bekaert Total Rubber Penetration) cord means that the rubber is able to penetrate deeper into the steel cord, which extends tire life, reduces fuel consumption and provides better corrosion protection. Moreover, this product is proving especially popular due to its rigidity.

We are now marketing Ultra Tensile steel cord, developed at the Bekaert Technology Center, which is even stronger and lighter.

We are pursuing the same goals of lighter weight and greater strength in our improvements to the bead wire used to reinforce the inside diameter of the tire where it contacts the wheel.

Against this trend, there is also rising demand for tires incorporating heavier steel cord reinforcement and bead wire, reflecting growing popularity of sports utility vehicles.

Maintaining a technological lead

In the fast-changing automotive sector, Bekaert works hard to maintain its technological lead.

Working closely with the customer, we conduct research in many areas including:

- improving the bonding process: the rubber is bonded to the steel by the heat generated in the vulcanizing process; speeding up this process means substantial savings for the customer;
- adhesion retention: adhesion may be impaired as the tire heats up in service;
- metal fatigue: this can result from the constant flexing of the steel cord when the tire is in service;
- the behavior of the steel cord within the rubber: Bekaert simulates this by computer modeling, yielding substantial cost and energy savings for the customer;
- new applications of steel reinforcement in specific tire types.
Rapid growth in China

Of all the regions where Bekaert sells steel cord, China is by far the fastest growing. Sales of steel cord products were up 48% in 2007, making it a record year for Bekaert on the Chinese market.

As well as the major international tire manufacturers, a growing number of local tire producers have established themselves in China in recent years. Bekaert is responding to this trend and works constantly to expand its local production capacity. Bekaert currently employs over 5,000 people in China, mainly in steel cord production and sales, at five plants in the provinces of Jiangsu, Liaoning and Shandong.

More than half of Bekaert’s capital expenditure in 2007 was allocated to China, to meet the rapid growth of the steel cord market there.

Radialization creates massive potential

To support the growth of the Chinese economy, the government is investing heavily in infrastructure such as seaports and airports. It is also investing in expansion of the freeway network, which has resulted in greatly increased mobility and ever more rapid growth in the number of cars and trucks on the road.

Cars and trucks need radial tires, reinforced with steel cord, to travel on the freeway. The sharply rising demand for these stronger, safer and more durable tires is creating significant growth opportunities for Bekaert. With over 90% of cars in China already fitted with radial tires, Bekaert is expecting this growth mainly in the truck and bus market, where penetration by radial tires has reached only 60%.

Steel cord production in China is growing by leaps and bounds. From barely one-tenth of European or United States volume in 2000, China caught up with those two regions by 2005 and is expected to surpass the combined output of Europe and the United States by 2010.

Our customers in China

Alongside the international tire manufacturers, several hundred Chinese manufacturers have entered the market in recent years. Most of Bekaert’s output in China goes to these local and other Asian players.

Keys to our success in China

Careful preparation

The success of our operations in China is no accident: it is the product of years of preparation and consistent application of our better together philosophy. Bekaert was commercially active in China back in the 1970s and we first contemplated setting up a joint venture there in 1982. It would then be more than ten years until, in 1993, we opened a sales office in Shanghai and entered into a joint venture with Jiangsu Wire Rope Group (now Fasten Group). China Bekaert Steel Cord started production in 1995 and was soon supplying tire manufacturers in China.
Capacity expansion in line with growth
Bekaert is now one of the largest Belgian investors in China. We had a major investment drive in 2006-2007, which has so far resulted in increased capacity in Shenyang (Liaoning province) and Jiangyin (Jiangsu province). Bekaert is the leading producer in China, with an annual steel cord production capacity at the end of 2007 of 250,000 tonnes.

Technological leadership
Bekaert is the undisputed technological leader in steel cord for the bus and truck tire market; the sophisticated steel cord used in this application is a complex product woven from 15-20 different steel wires. The same applies to the market for large off-the-road tires (as used on road construction and mining vehicles). Since the expansion of the Shenyang plant, we have been producing steel cord in close consultation with local tire manufacturers. This technological leadership is one of the drivers of our market leadership.

Cooperation is central
Cooperation is central to practically every success story on the Chinese market. To service the large number of players on this expanding market and given the value that local customers attach to close contact with and tailor-made advice from their supplier, we employ around a hundred account managers.

In China, too, Bekaert thinks in terms of partnerships. Of the fourteen plants there, seven are joint ventures. While we have a large controlling interest in most of these, the organizational structure guarantees that our Chinese joint venture partners have a significant input in policy matters.

We aim for the same good cooperation with the local suppliers of wire rod, our main raw material, and with leading Chinese universities.

Trust promotes engagement
Bekaert has always sought to maintain good relations with the Chinese government, which plays a crucial role in strategic economic sectors such as steel. By applying the same quality standards and environmental and safety rules in China as in our traditional markets, we have been able to build a relationship of trust which was strengthened by the establishment in 2007 of the Bekaert Asia Research & Development Center in Jiangyin (Jiangsu province).

The fact that our plants are run almost exclusively by Chinese personnel has also helped to connect Bekaert into the economic-industrial network.
India: a potential growth market

India is also a growth region, but most of the growth is in information and communication technology and software. Although these are activities for which improvements to the road network are not essential, rising prosperity is expected to drive further expansion of the infrastructure. Gradual growth is expected in the automotive sector and, in its train, the tire sector. Radial tire penetration of the truck tire market is currently low. Local car production is expected to increase threefold by 2015, which will benefit the component sector. Bekaert already has a presence in India, with a steel cord plant in Pune, and is ready to supply the market immediately when opportunities arise.

North America: strengthening our competitive position

Bekaert currently has three steel cord plants in North America, where market conditions were difficult in 2007 and demand in the automotive sector fell sharply.

Tire prices have been under pressure in recent years from the rising tide of cheap Asian imports and local tire production has steadily declined, as has local demand for steel cord. Several tire manufacturers have responded by relocating to low-cost production platforms outside North America.

In reaction to the higher price of wire rod in the United States, industrial customers are increasingly opting to import finished products made from cheaper raw materials.

The introduction of more stringent environmental legislation on 1 January 2007, which added an average of US$ 10,000 to the price of a truck, triggered a sales boom in late 2006. Truck sales then dropped off at the beginning of 2007, which impacted on tire sales in the OEM segment.

Bekaert anticipated the consequences of these difficult market conditions by adjusting local production capacity. The closure of the plant in Dyersburg (Tennessee), which overcapacity had rendered unavoidable, became effective on 17 December 2007. Its customers are now being supplied by the plant in Rogers (Arkansas), which is operating at maximum capacity.

Russia: supplying our customers with local products

The Russian steel cord market is only about one-tenth the size of the Chinese market at present, but is expected to grow in the coming years. Demand will also increase for high-quality products, which are Bekaert's forte. With the need for local production becoming more pressing, Bekaert decided in January 2008, shortly after breaking off negotiations with Russian steel cord manufacturer Uralkord, to build a new plant in the Lipetsk region, 400 kilometers south of Moscow. The plant is scheduled to come on stream in early 2010.
Despite these difficult market conditions, the North American tire manufacturers had started to recover their confidence by the end of the year. Some have started gradually to rebuild their capacity, amongst others helped by the additional export levies imposed in China, which raised the price of imported products.

Bekaert plans in the coming year to launch Ultra Tensile steel cord, developed in Belgium, on the North American market.

Latin America: rising demand for steel cord
Bekaert turned in an excellent performance in Latin America in 2007, despite imports of cheap tires and steel wire from low-pay countries and adverse exchange effects. Latin America is a region with a young population and steel consumption is only one-fifth of that in Western Europe, so there is considerable growth potential. Practically all the major car makers have built plants in the Mercosur region and car sales are rising all across the continent.

Bekaert’s steel cord production in Latin America is based in Brazil, where capacity at our plants is being expanded to meet the rising demand.

European steel cord plants perform well
Bekaert’s plants in Europe – like North America one of our traditional markets – were able to maintain steel cord output at the 2006 level, with good capacity utilization. There were, however, signs of a decline in demand for steel cord with the growth in imports of finished products (tires incorporating steel cord reinforcement). This depressed prices, an effect exacerbated by the strength of the euro.

We are working to optimize the cost structure at our plants in Western Europe and consolidate our technological leadership in products with high added value. We have also addressed the cost structure at Beksa, our steel cord plant in Turkey.

Shift toward Central Europe
The tire industry is gradually shifting toward the growth markets in this region: Central and Eastern Europe and more particularly countries such as Slovakia (which has the highest car assembly capacity in the world per head of population), Poland and Hungary. Benefiting from the strong demand for steel cord, our Hlohovec and Sládkovičovo plants in Slovakia performed well last year and we are expanding our capacity there.
Fibers for diesel particulate filters

We successfully introduced in 2007 our metal fibers for diesel particulate filters for trucks. This system, developed by a German company, reduces diesel engine emissions and eliminates filter maintenance. Instead of the usual ceramic material, the manufacturer opted for a filter medium made of sintered metal fibers which Bekaert produces in Belgium and China. In the course of the year, Bekaert announced an investment of €18 million in expansion of its fiber production capacity in Belgium.

Specialized wire products for the automotive industry

Bekaert’s wire products for the automotive industry, such as cables for side-window systems and valve, clutch and suspension springs, had a good year.

These products are required to meet ever-higher quality standards: wires have to be thinner and lighter without compromising their tensile strength. The quality of wire specified for clutch springs is approaching that for valve springs and the anti-corrosion coatings applied to springs are constantly being improved. Short development times are crucial in the components market. We achieved several breakthroughs in 2007.

Flat and profiled wires

Bekaert is market leader in a number of applications for flat and profiled wires. 2007 saw remarkable growth in sales of Bezaiplast® for blade springs used in new types of windshield wiper. Good sales figures were recorded for the Bekaert flat blade, consisting of a metal spring within a plastic sleeve, which reduces the number of components in a windshield wiper from 23 to just 6. More and more manufacturers are switching to this type of windshield wiper. Flat and profiled wires are also used for engine and clutch components and are sold on the home and foreign markets.

Stainless steel wire products

Bekaert has invested €18 million in a joint venture with Mukand, the local market leader in stainless steel, to build a stainless steel wire plant to supply the automotive and other industries. Our company has aspirations to become an international player in stainless steel over the next few years. The new plant will be our second bridgehead on the Indian subcontinent after Pune.
Europe: official recognition of Bekaert’s high quality standards

In July 2007, our plant in Zwevegem (Belgium) was awarded ISO/TS16949 certification, an international standard for suppliers to the automotive industry. The auditors were impressed by the emphasis in our quality system on continuous product improvement, waste reduction, compliance with specifications and avoidance of defects in finished products and by our ability to offer the customer appropriate solutions.

The offshore sector

Bekaert is also a global player in the offshore market. We supply not only offshore oil and gas producers, but also operators of submarine energy transmission and telecommunications links. Market conditions for this sector were good last year, given the high oil and energy prices, and demand for our products for offshore applications was strong.

Reinforcement of flexible pipes for oil and gas production

Bekaert’s flat and profiled wires are used to reinforce the flexible pipes through which oil and gas are brought to the surface from offshore fields. The acquisition of Cold Drawn Products Limited (United Kingdom) helped us take maximum advantage of the favorable market conditions and consolidate our market leadership.

We are now the main supplier to the major players in this industry. Close cooperation between our production plants around the world enables Bekaert to provide unequalled service to support our customers in their global expansion programs. Demand for these project-related services is expected to remain high in 2008.

One of Bekaert’s major customers for flexible pipes for the offshore market is investing in Asia. Bekaert will produce some of the wire needed for this project in India, at the plant in Pune where an additional
investment of €15 million is planned for the production line making flat and profiled wires.

Prospecting for oil and gas is moving into ever-deeper waters. The longer the pipe, the greater the weight and the greater the risk of fracture. With its high-tensile wire, Bekaert is uniquely placed to meet these requirements.

In contrast, 2007 was not a good year for rope wire for anchoring drilling and production platforms. Rather than building new platforms, the oil companies are connecting new wells to existing platforms or using old tankers.

**Solutions for the telecommunications and energy sectors**

Another success story in 2007 was galvanized armoring wire for submarine cables, for both telecommunications and energy transmission. An example of the use of energy transmission cables is to carry the electricity generated by offshore wind farms to the mainland. Comparable armoring is used in the ROV (Remotely Operated Vehicle) cables that are used to control submarine robots and connect them with the mother ship.

Bekaert completed major projects in 2007 for several clients, including Alcatel-Lucent and Nexans Norway. For the latter client, we supplied armoring wire for the NorNed cable, a joint project between the Dutch and Norwegian electricity transmission companies TenneT and Statnett. With a length of almost 600 kilometers, this is the longest submarine energy transmission cable in the world. The main purpose of the armoring is to protect the cable against damage by fishing vessels.

Given the current boom in the energy and telecoms sectors, this high level of demand is expected to continue for some time.
Marc Thaels
Account Manager Bekaert Industrial Steelwires

Atle Traaen
Purchasing Manager
Cable Raw Materials Nexans Norway AS
Nexans, one of the leading cable manufacturers in the world, supplies a wide range of cables, cable systems and accessories. The group is among the leaders in the infrastructural, industrial and construction markets. Nexans focuses on a broad spectrum of market segments, ranging from energy, transport and telecommunications networks to shipbuilding, oil, gas and IT. The company is active in more than 30 countries and provides jobs for 21,000 people world-wide.

Last year, Nexans Norway concluded a landmark agreement with Prysmian Cables & Systems for the Italian Terna Rete Elettrica Nazionale SpA. The company will produce a 400-kilometer underwater high voltage cable connecting the electricity transmission grid in Sardinia with the Italian mainland.

In order to fulfill this order, Nexans joined forces with Bekaert. Both partners can rely on a successful alliance that has already lasted for more than 30 years. Bekaert has worked with this client since its early years, first when Nexans Norway still operated under the name STK and later when it was called Alcatel Norway. Nexans was first served from our sales office in Oslo. Later, the company’s strong growth led to direct contacts with our sales management in Belgium.

It therefore comes as no surprise that Nexans Norway contacted us for this Italian project, which has been christened ‘SAPEI’. After all, Bekaert is strong in the production of flat galvanized steel wire for subsea power cables. The partners have also had positive experiences with other orders, including a cable connection for energy transmission between the Netherlands and Norway, almost 600 kilometers in length.

Apart from the reinforcement of high voltage cables for SAPEI, Nexans was also seeking a partner for two other major projects. The company will need a total of 11,000 tonnes of armoring wire over a three-year period. That’s a tremendous feat.

Bekaert was the only supplier in the market willing to expand its capacity in order to meet the client’s needs. Nexans can now count on deliveries of a total of 11,000 tons of flat armoring wire over a three-year period. That’s a tremendous feat.

Atle Traaen, Purchasing Manager
Cable Raw Materials
Nexans Norway AS

Bekaert and Nexans: crossing the sea together
The construction sector

Bekaert offers a wide range of products and solutions for the construction sector. Murfor® (masonry reinforcement), Stucanet® (plastering mesh), Meshtrack (reinforcement mesh for road renovation) and Dramix® (concrete reinforcement) are just a few of the products we supply. Bekaert’s construction sector business performed well in global markets in the past financial year, reflecting the demand for higher safety standards, closer supervision at construction sites and higher speed, because many of our products are quicker and easier to use than the traditional solutions.

In Europe, our high-quality concrete-reinforcement products are used mainly in large infrastructure projects, such as tunnels and mines, in industrial flooring and in prefab and housing applications. We also offer solutions, such as automatic metering systems for concrete-reinforcement fibers. Our expertise is increasingly being called upon to provide high-tech total solutions.

Despite the declining housing market in North America, we achieved higher sales of Dramix® steel fibers. In this market, too, we have professional teams who assist our customers.

In Latin America, construction has always been one of Bekaert’s key sectors. For some plants, including joint ventures Acma and Inchalam, both in Chile, steel wire for concrete reinforcement is a core business. We achieved good results in this region, creating a strong basis for future growth.

We also made good progress in products for the construction sector in Asia, where we strengthened our sales teams. We are expecting good results again in the coming year.

Dramix® and Dramix® Green: products with a future

Dramix® and Dramix® Green are a success worldwide. Applications range from foundations, basements, prefabricated structures and industrial floors to large infrastructure projects such as tunnels, freeways and airport runways. Our customers include specialized
flooring contractors, readymix concrete depots, concrete prefabricators and general contractors.

Sales of Dramix® Green, an improved version of classic galvanized Dramix®, took off in 2007. Dramix® Green, with its environment-friendly corrosion inhibitor, combines a smooth and esthetically attractive concrete surface with extended service life. It is a unique product which has been patented by Bekaert.

CE mark: a European first
In 2007, Bekaert was the first supplier to be awarded a Certificate of Compliance System 1 under the new European standard BS EN 14889-1 for its Dramix® steel fibers. This involved a thorough audit of Bekaert’s production processes, which will be repeated each year.

The CE mark for steel fibers for concrete reinforcement, which is a guarantee of quality as well as covering health and safety aspects, will become mandatory in most European countries in June 2008. Choosing Dramix® already gives our customers, such as construction contractors, a competitive advantage.

Worldwide success
The economic trends, and more particularly the high steel prices, are working in favor of Dramix®. A cubic meter of concrete reinforced with steel fibers contains less steel than traditional reinforced concrete, without compromising strength.

Sales of Dramix® were higher in North America, where Bekaert is mainly active in the industrial market which was virtually unaffected by the credit crunch. In the Andes region of Latin America, which is supplied primarily from the Dramix® plant in São Paulo (Brazil), the benefits of cooperation with our joint venture partners were clearly reflected in the excellent results. The Dramix® plant in Shanghai (China) is operating at full capacity, in response to the rapid growth of the construction sector. The product is also doing well in Europe, with strong growth in Belgium, Luxembourg, Italy and Scandinavia. Building contractors in Germany and Eastern Europe are increasingly asking Bekaert for design advice and on-site assistance with laying technically demanding concrete floors.
Other Bekaert products in the construction sector

Window film
Bekaert’s window film, marketed under the Solar Gard® brand, confirmed its strong position in the North American construction sector. Solar Gard® film, which is produced in California (United States), incorporates a polyester layer to which various other coatings are applied. By keeping the heat out but letting plenty of light in, it reduces air-conditioning demand and thus saves energy.

In the United States we recorded lower sales of the product due to the difficult economic conditions, this was partially offset by higher sales in Asia and Europe. The environmental benefits of Solar Gard® have been recognized by the Clinton Climate Initiative, the United States program to reduce CO₂ emissions and save energy.

Fine cord for elevators
Demand for steel cord is rising in China in sectors other than the automotive industry, especially for elevator cables in the fast-growing construction sector. Production capacity at the plant in Shenyang (Liaoning province) was increased to meet the demand.

Fiber for burners
Bekaert Combustion Technology develops environment-friendly metal fiber burners that are perfectly in harmony with the drive to reduce CO₂ emissions in Europe. Bekaert’s main target market is the residential sector with smaller boilers. Our fiber production capacity, which was recently doubled in Zwevegem (Belgium), has been further augmented in the plant in Suzhou (Jiangsu province, China).

Steel wire for cranes
The success of our wire products on the European construction market in 2007 was due primarily to the strong German economy and the flourishing capital equipment market, which translated into heavy demand for steel wire for cranes. The sharp increase in exports by specialized German crane manufacturers also benefited Bekaert. Thanks to our technological leadership, exemplified by the high tensile strength of our products, we were able to hold our position in this market.
Prestige projects

In 2007, a variety of Bekaert products again played an important part in prestige projects worldwide.

Kolumba Museum (Cologne, Germany)
Swiss architect Peter Zumthor’s design for the brand-new building commissioned by Kolumba, the museum of the Archbishopric of Cologne, demanded exceptionally high standards of the masonry. The bricks were to be laid in stretcher bond (laid end to end), which is prone to cracking. Because pale-colored brick was specified, any cracking would be clearly noticeable.

Working with Bekaert, the designer found the solution in Murfor® reinforcement. The result: 30 000 m² of perfect masonry – and not a single cracked brick.

Musée du quai Branly (Paris, France)
For this unusual project, composed of connected triangles, the designers needed a strong but light structure that could withstand wind loads. Bekaert came up with the answer: Poutrafil® for the lintel and Stucanet® for the reinforced plasterwork. The contractor found it easy to install. The galvanized lintel guarantees that the project will have a long life.

Barcelona Airport, Terminal Sur, 2005-2009 (Spain)
On very large projects, such as new airports and airport extensions, Bekaert products simplify construction, speed up the process and offer more durable solutions. For example, the construction of Terminal Sur at Barcelona Airport involved laying 250 000 m² of concrete reinforced with Dramix® steel fibers. The project also required 150 000 m² of masonry walling, which is reinforced with Murfor® to enable it to withstand high wind loads.

Canal Alvito (Algarve, Portugal)
The designers of a 25 kilometer long canal in the Portuguese Algarve needed a sustainable solution to the problem of the bed of the waterway alternating between wet and dry in an area with high summer temperatures. Steel fiber concrete reinforcement was the answer to speeding up the construction process. Additionally surface corrosion had to be prevented. Indeed, the changing water level in the canal meant that the surface of the concrete would erode more quickly, exposing the fibers to corrosion. Dramix® Green, which uses galvanized steel fibers, was the only product that met the many requirements.
When concrete reinforced with Dramix® Green fibers is discharged, the mix retains its homogeneity.

Electricity substations with structurally perfect reinforcement and a cosmetically perfect finish.

With a manufacturing presence in 41 countries and a sales network covering over 100 countries, the French AREVA group is a leading player in the nuclear power market. The group encompasses all related industrial activities, in pursuit of reliable technological solutions to the issue of zero-carbon energy generation, transmission and distribution. AREVA thus addresses one of the greatest challenges we face this century: how to make energy available to all while protecting our planet. Driven by the imperative need for environmental protection, AREVA’s 65,000 staff around the world make sustainable development and continuous improvement their priority.

AREVA Transmission & Distribution (AREVA T&D) has been working with Bekaert for over fifteen years now. In the beginning, it used our galvanized Dramix® steel fibers to make it easier and quicker to build electricity substations with reinforced concrete. Building with concrete reinforced with steel fibers uses less steel and needs less manpower, because less time is spent fixing the reinforcement, repairing and making good. It also makes it easier to fill the shuttering, which speeds up the process and improves the quality.

Electricity substations have to be inspected regularly to check for defects in the surface of the concrete, and various studies have shown corrosion to be one of the main causes of damage to reinforced concrete. Bekaert’s research and development team looked at this problem and came up with Dramix® Green, a new variation on our old bestseller using galvanized steel fibers, which we launched in 2007.

As well as producing esthetically faultless and durable structures, the galvanized steel fibers used in Dramix® Green contain a new rust inhibitor that offers an organic ‘green’ alternative to the inhibitors in current use. Given the importance that AREVA T&D attaches to durability, it has found an ideal partner in Bekaert.

AREVA T&D chose Dramix® Green steel fibers for electricity substations it was building in France, Russia and India. Checking for surface defects in the concrete is no longer needed and rust stains are a thing of the past. And AREVA T&D people know that they will get the same first-class support from their local Bekaert contacts anywhere in the world.

We are delighted to support AREVA in its quest for sustainable high-performance materials.

With Dramix® Green, we can meet all our customer’s requirements: we can offer a solution that ensures safe and durable concrete structures which, thanks to the environment-friendly rust inhibitor used in the product, are also esthetically attractive.

Henri Savard, Sourcing Manager AREVA T&D

Dramix® Green: hyper-performance ‘green’ concrete reinforcement

HENRI SAVARD, SOURCING MANAGER AREVA T&D

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