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Cover photo: bushland in Western Australia.
Following a disappointing year in 2010, 2011 saw Colas back on the road to success. The Group generated total revenue of €12.4 billion, representing a 6% increase against 2010, with a 50% surge in profitability.

Colas’ performance is even more impressive when we consider that the global environment was dominated by the economic and financial crisis, and will doubtless continue to be so for some time to come.

The Group’s high revenue figures nevertheless conceal contrasting trends depending on the geographic zone: growth in mainland France, North America and Asia/Australia; slight rise in northern Europe; slight drop in Africa, the Indian Ocean and French overseas departments; a bigger slump in central Europe. But overall, we exceeded our revenue forecasts for the year.

Most importantly, the striking increase in profitability is cause for great satisfaction. I’d like to take this opportunity to thank everyone at Colas for their hard work, and for the determination with which they implemented Group strategy, thus paving the way for progress. When bidding on contracts, we focused on profit margin rather than volume. We implemented numerous streamlining and improvement programs, particularly in central Europe, where we managed to cut our losses considerably – one of our key objectives for 2011 –, but also in the French overseas departments, mainland France and across all our businesses as a whole. In addition, we pursued our policy of targeted growth. And, unlike in 2010, the Group did not post any non-current expenses.

Colas’ success in 2011 is thus reflected in the numerous contracts secured across all five continents. In particular, Colas distinguished itself in some highly complex projects. For France, the most noteworthy of these include the concession project for Highway A63 in the Landes regions, PPP deals concerning a bypass in Vichy and street maintenance in Le Plessis-Robinson, and, lastly, the long-term high-energy performance street lighting and traffic light contract in Paris. Elsewhere around the world, there were a number of large-scale projects including the Canadian highways, Mauritius Airport, the Casablanca tramway, the metro projects in Kuala Lumpur, Malaysia and Los Teques, Venezuela, and the maintenance of the British rail network within the framework of long-term contracts.

Finally, as part of this rapid review of 2011, I must mention our responsible development targets, beginning with safety. This is one of my obsessions. Progress has come to a standstill so I would like to ask each and every one of you to redouble your efforts. Warm mixes represent another major challenge: it is vital that they take increasing precedence over traditional hot mixes as quickly as possible.

2012 will once again be a year of uncertainties, notably regarding the capacity of a number of our customers to finance projects. As we begin this new year, Colas has healthy work-on-hand – up 5% from last year in France and internationally – and finds itself in a solid financial position.

I have full confidence in the women and men who work at Colas and in their entrepreneurial, pioneering and responsible talents. In 2012, we must work together, ever increasing our vigilance and reactivity to ensure that Colas continues to pave the way forward.
From Canada to the Czech Republic, via Gabon, Indonesia and France... a rapid trip around the world to see the Group’s jobsites, work in progress and finished projects.

Hydro-Québec, Quebec’s state-owned electricity production, transport and distribution company, is currently building a hydroelectric power plant on the Romaine River. The river flows into the Gulf of St Lawrence, some 1,000 km from Quebec. As part of the project, Litel (Sintra) has sunk more than 800 wooden posts - 650 of which into rock - and installed around 500 anchors for the construction of a 48 km-long overhead electricity network. One of the major problems encountered in the project has been the need to drill through solid rock. Teams used a rock drill mounted on a hydraulic excavator for the purpose. In terms of logistics, access roads were created using fill. Given the remoteness of the site, teams have been housed at a temporary base camp. A total of 15 companies and 2,500 people are working on the project in which Sintra’s expertise has proved invaluable.
In 2011, some 500 km northwest of Antananarivo, Colas Madagascar built a bridge over the Mahajamba River. This two-lane pre-stressed beam structure is supported by 26 piles sunk to a depth of 20 meters and comprises five 40-meter long spans. The work was completed from start to finish by 130 employees in the space of just eight months. Quite an achievement for the subsidiary, which has once again demonstrated its capacity to pull off complex construction projects, from the deep foundation stage to pre-stressing.
On December 5, just three months after work began to create a network of stations, the first Autolib’ electric cars hit the streets in central Paris and 45 neighboring districts as part of the city’s new car-sharing rental scheme. Commissioned by the Bolloré Group to build the parking and recharging infrastructure required for the scheme, Colas Ile-de-France - Normandie set up a dedicated profit center. To meet the deadlines, 35 teams worked simultaneously. In November, output was one new station erected every hour, quite a feat! A total of 200 km of casing was laid to carry the electricity. Mastic asphalt, asphalt mix, slabs and paving stones were used for the surfacing. The finishing touches were provided by teams from Viamark, which specializes in signing and marking. The outstanding coordination between the various teams – crucial given the tight deadlines and limited size of the sites – helped the project become a complete success. But that’s not the end of the story: by June 2012, 1,100 Autolib’ stations will have been delivered, providing 5,000 parking spaces.
When the economy goes bad, you can always count on gold! And to prove it, Exclusive Paving (Colaska) is currently working on a project on behalf of Northwest Gold LLC, a mining company based in Ester, near Fairbanks, in central Alaska. Teams began dredging the waters of a lake in search of gold in August 2011. The project is breathing new life into this long-abandoned gold mine. A diesel pump, normally employed by Colaska to extract aggregates from its own quarries, is being used for the dredging operations. Once dried, the sand, gravel and stones extracted from the mine are transported by conveyor belts then stored at Northwest Gold LLC. Gold mines: a new market for Colaska!
The Chantilly racetrack: all-weather racing

The turf track at the Chantilly racecourse, which runs alongside the French Jockey Club's famous track between the stables and the Château, has been transformed into an all-weather course. Teams from Colas Nord-Picardie's Oise profit center replaced the turf with a combination of sand and fibers over a base course specifically designed to improve drainage. Now immune to inclement weather, the racetrack will be able to double the number of races it holds.
In June, Abu Dhabi, capital city and biggest emirate of the U.A.E, will sparkle under the glow of 1,700 Aluxe D300 traffic lights. The technology, designed by Aximum Electronic Products, has been selected by Abu Dhabi’s municipal services responsible for roads and traffic lights. For its first project of this type in the Middle East, Aximum has designed and developed pedestrian signals based on American-style pictograms. The product has also been adapted to meet local technical standards with respect to energy consumption, using specific green light emitting diodes (LED) for a unique effect and T-shaped bracket fixings. A showcase for Aximum Electronic Products’ expertise and customer offering, this contract is set to become a reference for Aximum in the region.
To accommodate vehicles hot off the production line at the Mladá Boleslav plant, some fifty kilometers northeast of Prague, Škoda Auto has commissioned Colas CZ to construct a 61,000 m² parking lot. The Czech car manufacturer was impressed by the subsidiary’s bid in terms of price, timescale and quality. In addition, the proximity of its asphalt mix plant was another factor in its favor. The project, scheduled for completion in June, mobilizes an average of 30 employees at any one time and requires 43,000 m³ of earthworks, 28,000 tons of aggregate and 25,000 tons of asphalt mix. Having won this first project, Colas CZ now has a solid reference on which to base future bids, not just with Škoda Auto but also with other car manufacturers operating in the Czech Republic.

**FRANCE**

Highway A36 reinforced to carry heavy truck traffic

Highway A36 – nicknamed the “Comtoise” after the name of the region it crosses (Comté) as it links Beaune to Mulhouse in eastern France – has to cope with very heavy truck traffic. APRR (Autoroute Paris-Rhin-Rhône), which manages the highway, decided to renovate an 8-km stretch of wearing course badly damaged by severe weather during the winter of 2010-2011 and to reinforce the slow lane, subject to particularly heavy use. Teams from Colas Est (Société Jurassienne d’Entreprise and Côte-d’Or profit center) used an anti-crack technique made of reinforced fibers to strengthen the road surface.

**CZECH REPUBLIC**

Škoda Auto: a contract that augurs well

To accommodate vehicles hot off the production line at the Mladá Boleslav plant, some fifty kilometers northeast of Prague, Škoda Auto has commissioned Colas CZ to construct a 61,000 m² parking lot. The Czech car manufacturer was impressed by the subsidiary’s bid in terms of price, timescale and quality. In addition, the proximity of its asphalt mix plant was another factor in its favor. The project, scheduled for completion in June, mobilizes an average of 30 employees at any one time and requires 43,000 m³ of earthworks, 28,000 tons of aggregate and 25,000 tons of asphalt mix. Having won this first project, Colas CZ now has a solid reference on which to base future bids, not just with Škoda Auto but also with other car manufacturers operating in the Czech Republic.
In 2008, Colas’ Indonesian subsidiary Wasco signed a renewable long-term road-maintenance contract with Indominco, operators of the Bontang coal mine on the island of Borneo. Teams of some fifty employees are responsible for maintaining the extraction site’s 35 km-long access road, which has to withstand the repeated comings and goings of heavy trucks transporting the coal.

The maintenance method used consists of a double chip seal containing a polymer binder. The mine itself is located in a remote part of the island and the organization and logistics required are quite specific. For instance, it can take a very long time to transport materials and equipment to and from the site. Wasco also carries out road maintenance for Adaro, another Borneo-based mining company. The successful working relationship the subsidiary built up with these customers has encouraged it to offer high-tech solutions and innovative services tailored to the needs of the mining sector.
Last spring, IA Construction Corporation (IACC), a company owned by the American subsidiary Barrett Industries, performed work to repave a reservoir on behalf of a hydroelectric company. A very popular outdoor recreational area, the Upper Reservoir, or “The Bowl” as it became known during the project, boasts a capacity of 500 million liters of water and is located in northwestern Pennsylvania in the heart of the Allegheny national forest. The “Bowl” was initially paved by IACC when it was built back in 1985. This time around, teams began by planing the interior walls and reservoir floor. They then applied mix specifically developed for the purpose with the assistance of NacTech (North American Colas Technical Center). The result is a brand new surface with guaranteed impermeability. Throughout the project priority was given to team safety and protecting the environment. And despite the fact that the start of the project was delayed for 26 days due to torrential rain as well as difficult site access, the work was completed on time.

Barrett upgrades a reservoir in Pennsylvania
Often called upon by the Champagne region’s wine makers, the Screg Est profit center in Epernay has been lending its expertise to Moët Hennessy. As part of its “Mont-Aigu” project, this prestigious Champagne house is having a new fermenting room built with a capacity of 100,000 hectoliters. The teams are in charge of the earthworks for the access roads and building, the roadways, the sewage system, water and electricity networks, as well as a traffic circle on Route 9. This is a particularly environmentally-friendly project since all the excavated material has been reused, Ecoflex warm mixes have been employed and the cement-treated base is 30% recycled. In addition, a natural system for treating hydrocarbons carried by rainwater runoff onto the roadway has been created: the pollutants will be absorbed by plants. An explanatory leaflet has been distributed to teams to encourage selective waste-sorting. Work is due to be completed by the end of August 2012, just in time for the grape harvest…

**Moët Hennessy:**

*a green project*

Colas Gabon is currently refurbishing and extending the runway at Port-Gentil airport. This project is of strategic importance for the city, the country’s economic capital located on a peninsula and only accessible by plane or boat. Work on the runway began last July and is set to last until June 2012. The Port-Gentil airport project is a perfect illustration of Colas Gabon’s technical and logistical expertise.
The City of Paris has awarded an energy performance contract for street lighting and traffic lights in the French capital to the Evesa group, of which Aximum is a stakeholder. The aim is to cut the amount of energy used on lighting by 30% over the next ten years. The contract covers project management assistance and the operation and maintenance of some 180,000 street lamps and 140,000 traffic lights. Of the 300 people working on the project, 150 are based at operating sites, 25 are conducting an inventory of existing installations in order to set up a computer-operated maintenance program and 45 people are handling emergency requests for intervention made by local residents. Some fifty engineers and technicians from the Project Management Support Department are responsible for energy performance issues. The first priority is to replace energy-guzzling lighting solutions with low-consumption bulbs or new generation diodes. Another area of focus is the regulation of light intensity depending on the time of day and the location of the lighting in question.
To accommodate the Airbus A380 and cope with the increased air traffic associated with tourism, Airports of Mauritius have awarded two complementary contracts to a consortium comprising Colas Maurice Ltée and Rhem Grinaker. The first contract relates to the extension and renovation of the existing runway. The second concerns the construction of a 2,400-metre taxiway. To avoid disruption to traffic, the work is taking place at night, to a very strict schedule. The teams from Colas Maurice Ltée have the technical support of the other entities in the Indian Ocean zone, particularly Colas Mayotte and Colas Madagascar. In addition to its know-how and expertise, Colas’ capacity to mobilize the significant human resources and equipment required to carry out major projects on this scale is an important factor in its success in the region. Synergies between subsidiaries and network solidarity really have come into their own here!  

Airbus A380: synergies on the tarmac

In 2009, Spac Major Projects (pipelines sector) was awarded the contract to construct the surface facilities for an underground natural gas storage unit in salt caverns in Hauterives (southeastern France). The contract is being performed as an EPCC contract (Engineering, Procurement, Construction and Commissioning). The first phase of the work was completed at the end of 2011.
As part of its road resurfacing program, the City of Avignon commissioned Screg Sud-Est to renovate a 1.5-km section of the boulevard Saint-Roch. This extremely busy four-lane stretch runs alongside Avignon’s southern city walls, near its main railway station. With the support of the municipal services, temporary signing was installed to ensure continued access to the station. After a week of preparatory work at the road side, the main work – planing and application of asphalt mix – was carried out by some twenty machines working tirelessly through the night. The main target – successfully met – was to minimize inconvenience to users and complete the work before the end of the school holidays.
At the Lac des Sapins, an artificial lake created in Cublize, in France’s Rhône Valley, back in the 1970s, teams from Perrier TP (Colas Rhône-Alpes Auvergne) have built environmentally-friendly swimming areas with a capacity of 15,000 m² – the biggest in Europe! Since the existing swim spot was polluted with algae, the Amplepuis-Thizy joint local authority decided to create a new space for bathers, separate from the lake. The first thing teams had to do prior to the excavation work was build a “dam”, including dike and sheet piles, separating the future swimming area from the existing lake. Three pools of varying sizes have since been dug, as well as a lagooning pool containing aquatic plants for water purification. Degassing and drainage networks have also been installed to protect the geomembrane lining the pools. Throughout the project, great care has been taken to protect the environment. For example, machinery has been parked on watertight surfaces and drivers equipped with anti-leak kits. Swimmers will be able to enjoy the new facilities in the summer of 2012.
What is so special about Route RD 338 linking Le Mans to Tours? The answer is that one section of the road has a dual purpose, being used by both trucks and racing cars! The Hunaudieres straight is a famous feature of the mythical 24 Hours Le Mans race, the most prestigious of all endurance car races. For the resurfacing of the wearing course of this section, Colas Centre-Ouest in Le Mans had to work to some very strict specifications, particularly in terms of safety and driver comfort, since race speeds can reach as much as 340 km/hour. Because of this, they chose a top-of-the-range coarse mix containing Colflex® binder. Teams also had to work to some pretty tight deadlines in order to avoid excessive traffic disruption: in the space of three weeks, 5.4 km of roadway were planed, 5,000 tons of planed materials were removed and more than 4,800 tons of asphalt mix were applied on the width of the section. And the “plus” point for Colas? The use of 3E® warm mix, generating energy savings of between 15 and 25% and cutting greenhouse gas emissions by 20% in comparison with traditional mixes.
Last summer, the AREA highway company awarded a contract for work to be carried out on the Voreppe-Saint-Egrève section of Highway A48 in the Isère area of southeastern France to a consortium comprising Colas Rhône-Alpes – Auvergne (Echirolles center), Sacer Sud-Est (Eybens center) and Screg Sud-Est (Colombe center). The work included the creation of a 4.1-km shared-access bus lane and the renovation of a 5-km section of road. In addition to time restrictions, the project's main difficulty lay in the rigorous evenness and cross section requirements imposed by AREA: no “wave” would be tolerated on the roadway, not even one millimeter! To meet this stipulation, pavers were fitted with 18-meter beams. Work was carried out at night to avoid traffic disruption and the final result was given the thumbs up.
As part of Reunion Island’s renewable energy development policy, EDF has decided to expand its Sainte-Rose hydroelectric power plant, in the southeast of the island. The contract to create the engineering structures (loading wells and tailrace to the sea) in preparation for the installation of a fifth turbine was awarded to GTOI’s civil engineering center. One of the specific characteristics of this project is the fact that it is taking place partially underwater. Given the fact that this is a listed site and to ensure protection of a coral reef, three settling tanks as well as a floating pollution control dam have been built. Launched last September, the project is due to be completed in October 2012.
In January 2011, the French government asked Atlandes, a consortium comprising, among others, Colas Sud-Ouest and SSIg Sud-Ouest, to carry out upgrading work on a section of Route 10 in the Landes area of southwestern France with a view to bringing it up to highway and environmental standards. This road is a notorious accident black-spot unsuited to current traffic volumes. The 40-year contract covers the design, construction and widening (2x3 lanes), as well as the servicing, maintenance, management and financing of a 105-km section between Salies (Gironde) and Saint-Geours-de-Maremne (Landes). Six months were spent carrying out surveys and obtaining the relevant administrative permits before actual construction work began in September, mobilizing many of the Group’s employees within the A63 Highway consortium. The first 30-km section will be delivered in June 2013. The highway will then become a toll road, with the entire project due for completion in June 2014.

Belleville-sur-Vie: recycling on Route 763

The Sacer Atlantique profit center in La Roche-sur-Yon carried out resurfacing work on the Belleville-sur-Vie bypass, in the Vendée region of western France. The interesting aspect of this project was the use of 30% reclaimed asphalt pavement from the former roadway.
A wider view of Route 57

To make life easier for the 12,000 vehicles that use Route 57 each day, the Sacer Paris-Nord-Est profit center in Vesoul was chosen to widen the Plombières-les-Bains bypass, between Epinal and Vesoul in the Vosges mountains, into a four-lane section. The key feature of this project was the application of 20,000 tons of hot mix with 20% RAP.

Microville® HP: stop the noise!

As part of a downtown revitalising program, Château-Thierry, in the Aisne region of France, decided to turn its rue Carnot into a shared zone. To achieve this, it called upon the services of Screg Nord-Picardie’s Vallet Saunal profit center. The pedestrian areas – which have been increased in size – were created using light beige granite paving stones. At the same time, the roadway has been made narrower and the speed limit reduced to 30 km/h. To reduce noise, the profit center suggested an innovative surfacing solution, Microville® HP. Developed by Screg Nord-Picardie’s technical team, this new generation “silent” mix stands apart from traditional noise-reducing mixes in that its acoustic performances are very long-lasting. In terms of comfort, noise levels are reduced by around 70%, so local residents can now enjoy long-lasting silence.
Paris-Lyon high-speed railroad: ballast, nothing but ballast

Between September and December 2011, Colas Rail’s Major Projects profit center continued with the ballast replacement project on the high-speed rail link between Paris and Lyon. Each year since 2009, the project has advanced by between 40 and 50 km, to ensure satisfactory track leveling. Carried out at night on behalf of RFF (the French Rail Network) and with the SNCF (the French state-owned rail company) as project manager, the operations have mobilized some 150 people. Major maintenance work is due to be carried out on other high-speed rail lines over the next ten years. Colas Rail is on track to be in the running.
Colas in Australia

Colas first set foot in Australia in 2008, with the acquisition of SAMI Bitumen Technologies, a company specializing in the sale of bitumen and the production of special bitumen binders. Here we report from one of the subsidiary’s sites, located in Western Australia.
The acquisition of SAMI Bitumen Technologies in Australia in 2008 was an important strategic move for Colas as it sought to develop its bitumen trading activity and bitumen product manufacturing activities in the Asia-Oceania zone. SAMI Bitumen Technologies has its head office in Sydney but operates right across this vast country, supported by three bitumen storage depots and four plants dedicated to the manufacture of special bitumen products (emulsions and modified binders, etc.). These facilities are located on the east and southeast coasts, in Sydney, Brisbane and Melbourne, as well as the west coast, not far from Perth. The subsidiary is active throughout the entire bitumen chain, with the exception of the initial refining phase: from purchase to storage and from processing to delivery.

The Australian West: an Eldorado
Fremantle is a small coastal town lying 25 km from Perth, in Western Australia. Heading out to the port there, we find SAMI Bitumen Technologies and its bitumen storage depot, together with bitumen emulsion and binder production plants. The company’s business is thriving on the back of the booming economy of Western Australia, where average annual economic growth is an astonishing 4.5%. Often referred to as the “final frontier”, this State, which is five times the size of France and occupies two-thirds of Australian territory, is a desert of red sand endowed with considerable mining resources: gold, iron, nickel, bauxite, natural gas, oil, diamonds, etc.

Bitumen shipped from Asia
“We buy our bitumen in Asia, from Thailand, Singapore, South Korea and China, as well as the Kemaman refinery in Malaysia”, explains Sébastien Chatard, SAMI Bitumen Technologies.

CÉSAR CORTEZ
A ONE-MAN BAND
Born in El Salvador, César Cortez has been foreman at SAMI Bitumen Technologies site in Fremantle (Western Australia) for over four years. He is responsible for emulsions, binders and bitumen, from unloading dockside to the loading of trucks. He is also responsible for maintenance of the storage depot and two production plants as well as risk management, from the point of view of both employees and the environment. “I need to be available, adaptable, rigorous and level-headed in this job…and I love it. It’s so rich and varied, I never get bored”, he confides. “I love being in the thick of things on the site and am constantly trying to make improvements.” His dream is to expand the storage facility. “It would be quite a challenge, but a source of immense pride as well!”
Sector Manager at SAMI Bitumen Technologies. “The challenge is to ensure we take delivery at the right time and the right price, as a function of customer orders. This means that we spend a lot of time beforehand negotiating with refineries and ship owners.” The bitumen is shipped to Fremantle, mainly using the Group’s bitumen tankers, which are fitted with insulated tanks and a heating system to make sure the bitumen is maintained at a constant temperature of around 150°C. Tipco, Colas’ Thai bitumen trading subsidiary operating throughout South-East Asia, has six such vessels. The “AD Matsu”, an asphalt tanker operated by a Colas subsidiary based in Singapore, is generally used to ship the product to Fremantle.

Storage, processing and quality controls

Once the ship has arrived dockside, unloading can begin. The process takes between 14 and 24 hours. The bitumen is piped to the storage facility, located around one hundred meters away, where it is kept at temperatures ranging from 160°C to 180°C. It may then be converted into special bitumen products in one or other of the site’s plants. As soon as the product arrives at the port and throughout the storage and processing phases, SAMI Bitumen Technologies laboratory carries out numerous qual-
ity control checks. The product is even checked at the point it is loaded onto the road tanker for delivery to a worksite. Be it crude bitumen or in binder or emulsion form, the bitumen product delivered to the customer for road building must meet the specifications laid down by the State’s road authorities (Main Roads). It also has to be capable of withstanding the transport process: it can take several days to move the product from the port to a given jobsite. Formulation quality is crucially important therefore.

Land transport by road train

Jobsites can sometimes be located on the other side of Western Australia, more than 3,500 km from Fremantle. If this is the case, crude bitumen or the bitumen product is transported by “road train”. These convoys are more than 50 meters long and consist of a truck pulling up to three trailers behind it. They are a common sight in these vast landscapes where the roads just seem endless. “To deliver bitumen, drivers sometimes cover distances of 7,000 km there and back”, explains Wayne Lee, haulage company manager. “Driving a road train is a specific skill and takes experience: it isn’t easy to overtake other vehicles with monsters like this. In fact, it’s hard enough just to keep to the road and bring the vehicle to a stop.” Drivers also have to check the temperature of the bitumen at regular intervals since it has to be kept constant to ensure the product retains its properties.

Customer confidence

Most of SAMI Bitumen Technologies’ customers are civil engineering companies contracted by Main Roads. “Our customers trust our products since they are certified as an endorsement of quality,” explains Ian Willis, CEO of SAMI Bitumen Technologies. “In particular, our bituminous binders are specifically formulated to withstand long journeys.” For example, in Western Australia, the subsidiary supplied 50,000 liters of bitumen for a project to widen a 12-km section of the North West Coastal Highway, in the Karratha mining region, 1,500 km north of Perth – a red lunar landscape out in the bush. SAMI Bitumen Technologies also supplied the bitumen for the renovation of a minor road in the County of Dumbleyung, 300 km south-east of Fremantle, using a chip sealing technique known as Sprayseal, popular in Western Australia for its heavy load resistance and low cost. SAMI Bitumen Technologies also supplies companies working exclusively for the mining sector. In particular,
the subsidiary supplies specific bitumen emulsions designed to reduce problems associated with dust.

**Colas’ technical support**  
Over the years, SAMI Bitumen Technologies has become a reference on the Australian bitumen market. “The quality of our bitumen and special bitumen products is recognized. Since joining forces with Colas, we’ve gained a considerable amount of technical expertise, particularly thanks to the support of the Group’s Campus for Science and Techniques*, emphasizes Ian Willis. A major asset, which should enable SAMI Bitumen Technologies to continue expanding on the “island continent.”

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**DALE NGARIMU**

**ALONE IN THE MIDDLE OF NOWHERE...**

One, two, three... Dale Ngarimu’s truck can pull up to three trailers! On board his road train, this Maori truck driver from New Zealand transports bitumen from SAMI Bitumen Technologies throughout Western Australia. “I love being at the wheel of my truck driving tens, hundreds or even thousands of kilometers, alone in the middle of nowhere”, he explains. “The only thing I’m afraid of is hitting a kangaroo and I hate overtaking caravans in the holiday season...”  
Driving a road train full of bitumen over long distances requires a degree of logistical organization: to make sure the bitumen stays at a constant temperature, he has to make regular stops to reheat the tanks and as often again to fill up with gas...
50,000 liters of bitumen were supplied for a project to widen a 12-km section of the North West Coastal Highway, in the Karratha mining region.
Business was good for Colas Belgium in 2011, with the subsidiary taking advantage of exceptional weather conditions and, in particular, a warm summer and mild winter.

A number of projects also contributed to this success, as profit centers performed some major resurfacing contracts on the country’s road and highway network, badly damaged by the hard winters of 2009 and 2010. A broad variety of infrastructure development contracts are also under way. Here are three noteworthy examples.

The Liège railway station esplanade

In Liège, Wallonia, JMV has been working on the complete redevelopment of the Liège-Guillemins railway station esplanade, located right at the heart of the city. The Place des Guillemins will need to be able to handle the 36,000 travelers who use the station every day and to comfortably accommodate motor vehicles, public transport, cyclists and pedestrians alike. The project involves a range of esthetic and technical challenges. In terms of esthetics, first of all, the challenge is all the greater given that the brand new railway station boasts a very bold design. The overall effect therefore needs to provide

> KEY FIGURES FOR COLAS BELGIUM

1988 date created
# 1 in road works in Belgium
6 regional operational units, covering the whole country: Cotra, Enrovia, JMV, Jouret, VBG and Wegebo
1,200 employees
Teams at Colas Belgium refurbished Highway E411 near Tellin. A specialty in Belgium: most roads are in concrete.
harmony. “For example, it is essential that we avoid color differences between the paving stones and the black exposed-aggregate reinforced concrete”, explains Pascal Beckers, Project Engineer. On a technical level, the subsidiary’s teams are responsible for every area of the project and therefore have the opportunity to put their many and varied skills to good use: excavation, laying of paving and exposed-aggregate concrete, drainage, creation of access roads, bus platforms, sidewalks, borders, water features, etc. “This project gives us the chance to showcase our technical expertise”, believes Dominique Werpin, Operations Manager.

The main route through Hoegaarden

The same determination to reconcile the needs of the various users applies in the Flemish region of Belgium. In Hoegaarden, for example, famous for its white beer, another Colas Belgium entity – VBG – is currently working on a project to redevelop Route RN 221, which runs right through the town. In particular, the contract involves upgrading infrastructure (sidewalks and access roads) outside schools, along with the creation of two drainage networks with retention basins and a pumping station. The teams are also performing civil engineering work for these structures. The project is an opportunity for VBG to showcase its skills and the company’s capacity to innovate. “We’ve decided to apply different types of surface materials to clearly identify the areas assigned to the various types of users”, explains Patrick Segers, Project Manager. The teams have also shown that they can cope with the unexpected: “The blueprints for the underground telephone, water and...

Colas Belgium is renowned for the quality and diversity of its expertise.”
gas networks, etc. weren’t always accurate. We were forced to pre-locate cables then review drainage plans accordingly”, recounts Patrick Segers.

**Taking good care of Louvain Hospital**

Let’s head next to Gasthuisberg, overlooking the city of Louvain, where Wegebo is currently working on a contract for Louvain’s teaching hospital, adjoining the famous Catholic university. The contract involves building a 2.5-km section of road with an independent drainage network, as well as a 33-m long reinforced concrete tunnel for bicycles and pedestrians, and is set to last until mid-2013. To avoid inconvenience to the site’s various users – hospital staff, patients and students – the project is being broken down into six phases. “Detours will be available for motor vehicles and pedestrians”, explains Theo Segers, Site Manager. Site safety is another priority for the company and specific measures have been taken to protect a gas pipeline located near the tunnel. Finally, the project gives Wegebo – already well known in the Brussels region, primarily for maintenance work at Brussels-National airport – the ideal opportunity to highlight its expertise in the field of concrete surfacing.

With numerous other projects also in the pipeline, 2012 has gotten off to a flying start for Colas Belgium and its profit centers!

**SAFETY FIRST**

Route RN 221, which crosses through the town of Hoegaarden, is currently being upgraded, with a particular focus on improving safety for all users.

**BEN FRANKEN**

**TEAMWORK IS THE KEY TO SUCCESS**

Although he only joined VBG in May 2011, foreman Ben Franken is very familiar with the company since he spent seven years working for one of its subcontractors. The Hoegaarden project is the first one he has been involved in since his arrival. “I supervise the work of all the teams. That can involve up to twenty people at any one time. It’s also my job to manage equipment on the site”, he explains. With a project as varied as this, there are constant difficulties and surprises, some good and some bad. “It’s a fascinating project, requiring many special techniques. It’s the most complex project I’ve ever been involved in. Fortunately, I’m well supported by the project managers and whenever we run into a problem, we always come up with a solution. That’s one of the great strengths of teamwork. Many hands make light work!”
Foremen, machine operators, project managers... they all do their jobs with enthusiasm and have decided to share their daily routine and projects with us.

ANOUAR LACHEHAB
PROJECT ENGINEER
GTR
MOROCCO

Anouar Lachehab boasts an impeccable education: after a high school degree in science he first studied special mathematics in Morocco before winning a place at ESTP, one of France’s leading civil engineering schools.

Anouar began his career in the construction sector in France. He could have stayed in the country but decided to return to his native Morocco after a few years. “I wanted to be involved in the development of my country”, explains Anouar. “Infrastructure performance has a key role to play.” And so it was that the young man was employed by GTR, Colas’ Moroccan road subsidiary, in Rabat. It wasn’t long before he realized that the company was way ahead of the competition when it came to the pursuit of excellence, a quest for quality also reflected in the number of innovations. While he has much to offer on the ground, Anouar recognizes that he still has a lot to learn, heralding an exciting future.
Karine Huberdeau only joined Erco (Colas Centre-Ouest) to replace someone on maternity leave. She was assigned to scheduling where her people skills and reactivity were soon spotted. It wasn’t long before she was working in sales too, including customer follow-up. At the same time, she continued to handle scheduling, a vital tool when it comes to optimizing the efficiency of equipment. “I learned a lot from my regular trips out to job sites, including the technical aspects of our business.” Karine’s adaptability, combined with her high level of motivation, led to her becoming site supervisor. And in July 2011 she was appointed sector supervisor. Responsible for managing Erco’s central and southern region, she supervises around twenty employees. So what are her missions? “To find solutions to problems and manage my team on a daily basis. People skills have always played a key role in my career. Each customer and each employee is different. I try to listen to each and every one of them.”
Creating winning synergies!

JULIEN GUÉRY  
PROJECT SUPERVISOR  
ECHANGEUR BOULOGNE FRANCE

After completing a thesis on public-private partnerships (PPP) in the United Kingdom, Julien Guéry joined Colas’ Concessions and Major Projects Department at the age of 23. A year and a half later he was appointed project supervisor. In recent years, PPPs have enjoyed a degree of success with the public sector, and private companies are increasingly being approached to help finance infrastructure projects. Julien’s role is to help put together winning bids. To do so, he works alongside the Group’s legal, financial and technical experts. “We all gather around the table to discuss how we can optimize solutions to best meet the customer’s needs over development periods ranging from between six months to three years depending on the market. Our proposals must be as closely tailored as possible since it is the Group’s subsidiaries that will subsequently be responsible for carrying out the work.” Julien’s main task is to consider the project as a whole, to initiate dialogue between entities and coordinate them to ensure the effective steering of expert committees. The technical teams, for example, need to take on board the financial imperatives, while the finance teams need to be aware of the finer technical aspects of a project. And so what’s next for this globe-trotting rugby and judo enthusiast? To gain experience in the same type of project on the international stage.
A strong desire to get back into the field

EMILIE GONCALVES
SALES REPRESENTATIVE
AXIMUM SAFETY PRODUCTS FRANCE

In 2006, Emilie Goncalves was a sales assistant with Bouygues Telecom. She soon climbed the ladder to become shop manager, responsible for improving performance and managing a team. However, she really wanted to get back into the thick of sales strategy with more customer contact and in 2010 she started looking for a new job.

“I had three criteria: to be right at the heart of sales, out in the field and to deal with specialists, in order to have greater clout as a sales rep and maintain my autonomy.” Emilie’s search led her to Aximum Safety Products (APS) in Uchaux (southern France). She was unfamiliar with the sector but she is a fighter and highly motivated. “I’m a curious person and love change. Every day is a learning experience for me at APS: sales approach, the organization of the working day, colleagues and contacts, etc. I can spend the morning with elected officials, keeping abreast of what’s going on in the region, and the afternoon on a jobsite, watching workers install crash cushions. It’s right up my alley!”
Having mastered every machine imaginable, from 300-ton caterpillar cranes to backhoe loaders, in 2001, Alain Zamy joined GTOI, Colas’ Reunion-based subsidiary, where he is a planing machine operator. An outgoing man, Alain enjoys building roads and runways, infrastructures that help bring people and countries closer together. Made a member of the skilled workers’ guild, l’Ordre de la Fournaise*, in 2009, he and thirteen others like him represent the values of mutual support, professionalism and excellence promoted by the company. In his work he casts an expert eye over the job sites and attaches great importance to prevention, especially when it comes to health and safety matters. Another of his priorities is to ensure new recruits are given the help they need when they join the company. Alain also takes part in professional forums organized by high schools, the university and the local prison. Always willing to share his expertise with others and pass on his know-how to neighboring islands where Colas is present, Alain forever goes the extra mile. His wildest dream? “To set up a network to host employees from other countries so that they can discover Reunion Island and, above all, so that we can share our know-how.”

* L’Ordre des Compagnons de la Fournaise, named after Reunion Island’s active volcano, was created by GTOI in 2009.
Team spirit is important to me

MARIE DURAND
FOREPERSON
SCREG NORD-PICARDIE
FRANCE

Armed with a technical degree in civil engineering, Marie Durand chose to do her internship as part of her vocational degree at Screg Nord-Picardie. She was initially based at the Bully-les-Mines profit center in the Pas-de-Calais area, before setting off on a tour of the region: this training program for novice forepersons gave her an insight into the various activities and working methods, allowing her to amass some invaluable experience on the way. “It isn’t always easy to move base every three months but I jumped at the opportunity!” she explains enthusiastically. “I learned a lot in the five profit centers throughout the year and a half I spent training.” The Montaron profit center – her last port of call in her tour of the region – gave Marie the opportunity to work on high quality projects and, above all, to secure her first foreperson position. “When I was offered the job I was delighted. Although I’m from Normandy, I wanted to work further north, where the people are particularly welcoming. The working atmosphere is excellent out on the job sites and in the office. I’ve played a lot of team sports so team spirit is important to me!” Today, Marie, at the age of just 23, supervises a team of a dozen or so employees!
The sunshine of his native land perceptible in the lilt of his voice, Armando Cardamone left Calabria in Italy in 1960 to try his luck in Canada. He started work at E Construction Ltd. — which became part of Colas in 2000 — the same year and he’s still there today! Armando is certainly not afraid of hard work and is proud of the more than 50 years of experience he has under his belt. “I’m E-Construction’s oldest employee. It’s quite simple: I love my job! My bosses have always treated me well and I’ve got a close relationship with my colleagues, some of whom I’ve known for 45 years. E Construction is my second family!” Having started out in the company as a worker, he was soon put in charge of a paving team. Trained to operate heavy equipment in 1968, Armando has specialized in the assembling and dismantling of mobile asphalt plants since 1979, traveling more than 650,000 km along the way! Dismantling a plant, moving it to a new site and then assembling it again takes a good week. I love the whole ritual! I hope to continue working for at least another two years. I feel great!”, enthuses Armando, whose energy, at the age of 70, would put many a younger man to shame.
For many years, Pascaline Lemasson was an enthusiastic, successful rower. And the new recruit to the Devaux Rouen profit center has lost none of the tenacity and perseverance from her days as a top-level athlete. After breaking her shoulder in a fall, Pascaline went back to her normal activities too quickly and as a result has been left with permanent weakness in her shoulder, making her unable to carry heavy weights. So she decided to retrain and move into construction, a sector that had always interested her. At the age of 41 she went back to school, obtaining a vocational certificate as an architecture and housing technician, followed by a degree as a building technician specialized in research and economics. “Colas strives to offer concrete help to people with disabilities. They were the only company to come out to our school to meet us. Today, I’m working at the Devaux Rouen profit center on a one-year vocational training contract. I’m learning to read plans, cost projects, check quantities, etc. In other words, all the aspects required to respond to a call for bids. Next October, I will be a technician in the design and engineering division. I will have a real job and one that I love to boot!” Pascaline has used her fighting spirit to achieve her goals. Nobody ever doubted she would, especially not her son or husband, who also work in construction!
Jacques and Vincent Objoie have dedicated their entire careers – 29 years and 25 years respectively (!) – to railways. Jacques, the elder of the two, joined Colas Rail in 2007. Two years later, he was asked to put together a team that would be responsible for working on a five-year ballast replacement program on the high-speed rail lines. So Jacques head hunted his brother, brother-in-law and two of his nephews! Vincent is responsible for removing the ballast: he manages a team of twenty people who prepare the site and replace the ballast. For his part, Jacques manages the team on the installation train made up of around thirty people. And so what’s on the agenda for 2012? Two major track and ballast renewal projects on two high-speed rail lines: Paris-Bordeaux and Paris-Lyon. “Traveling all over France, working at night, living out of rental cottages and caravans… it’s quite a lifestyle! When Jacques asked me to join him for another ballast replacement program I jumped at the chance”, recounts Vincent. “What’s more,” adds Jacques, “when you’re responsible for the safety and quality of a project, you need to have 100% confidence in your colleagues. With my brother, I can relax. It’s like I was doing the work myself!”

“Having 100% confidence in your team”
ERIC MULLER
PIPE STRINGING SUPERVISOR
SPAC
FRANCE

Eric Muller started out in the construction business when he was just 16 years old. He soon realized that what interested him most was pipelines and so he opted to learn the trade at a Grenoble based company specializing in the business. In 1996, he joined Spac’s Major Projects profit center. Promoted to the post of pipe stringing supervisor in 2008, Eric is now in charge of a team of around fifteen people. “At the storage depot, we load 18-meter tubes onto trucks. These tubes are then transported to work sites where they are strung and welded,” he explains. “I love this job because I’m constantly on the move. I travel around all year long, clocking up an average of 100,000 km!” A project’s success depends first and foremost on meticulous route planning. Two or three months before the start of a project, Eric spends a few weeks exploring potential routes. “We have to be able to take 24-meter long trucks down narrow country roads! So customers are given a route plan before every project. We also need authorization to travel with a wide load, and to seek permission to use small country roads which don’t belong to the same town…” All in a day’s work for Eric!
In addition to providing technical support to subsidiaries, Colas' Campus for Science and Techniques (CST) designs new products to either anticipate customers' requirements or meet existing ones. Some of its priority areas for development include protecting the environment in terms of reducing carbon footprints, ensuring material and energy savings, esthetic issues and rolling noise control. The durability, safety and cost control of infrastructures are also crucial challenges. Following the initial development phase, innovations are tested for several months by subsidiaries as part of experimental projects. This feedback from the field is essential to be able to validate the new process and ascertain whether any improvements need to be made.

Reducing the carbon footprint of products

For a number of years, Colas has been developing a range of plant-based products capable of replacing synthetic chemicals or petrochemical products. The latest of these include Ekoflux. This non-volatile, plant-based fluxing agent is designed to be used in coating or spraying emulsions or in fluxed coating bitumen. It was tested as part of a project conducted by Screg Est teams last September. At this experimental site, Ekoflux will also be compared with another fluxing agent, Vegeflux. It too is plant-based but is more expensive. A verdict will be reached in September 2012. Colas Ile-de-France - Normandie also tested Ekoflux in October 2011 for the production of open-graded storable asphalt mixes.

Extending the lifespan of road surfaces

Some roads that have been badly damaged by traffic or severe weather cannot tolerate the surface treatments traditionally used to renovate roadways. To overcome this problem, Colas has developed a reinforced surface treatment process. When it is applied, fiberglass is inserted between two layers of emulsion. This operation requires the use of a specific machine. A first experimental project has been completed by Screg Sud-Ouest's Tarbes profit center, on behalf of the Hautes-Pyrénées regional council on a 12,000 m² stretch of road. The incorporation of fiberglass in the binder layer also helps to extend the service life of the road surface.
Controlling the cost of infrastructures while maintaining their performance

Made up of superimposed layers of emulsion and gravel, emulsion-based surface dressings destined for roads with heavy traffic can be used to maintain this type of road surface at lower cost, thanks to the use of highly modified elastomer binders. The surface properties of these roads – impermeability, roughness and skid-resistance – are also regenerated. Experimental projects have been conducted by Colas Rhône-Alpes Auvergne and Sacer Paris-Nord-Est. Another process that can be used to maintain roads at a lower cost without any large-scale work is Capeseal. Already used for a number of years by Terry Asphalt (Barrett Industries Corp.) in the United States, Capeseal has won the support of Scret Ouest and Scret Est, which asked the CST to adapt it to the French context. This technique combines microsurfacing and surface dressing. Last year, Colas Nord-Picardie conducted five experimental projects and convinced the Amiens joint local authority and the Somme regional council to opt for Capeseal. Colas Sud-Ouest also tested the product in November.

Other innovations are currently in the pipeline or being tested in the field. These include processes designed to reduce production temperatures and products with a negative carbon balance.
Among the innovative techniques provided by American subsidiaries in the Colas Solutions™ range, the FiberMat road crack treatment has met with resounding success, not only in the United States and Canada, but also in Mexico.

Used in the United States, Canada and Mexico, FiberMat is a revolutionary new technique from Colas Solutions™, designed to treat and delay road surface cracks. The bituminous membrane is made of a mixture of modified polymer emulsion and fiberglass. This is a low-energy solution since it is applied warm. Ideal for protecting roadways, FiberMat offers a string of advantages: extended pavement lifespan, road waterproofing and, above all, greatly reduced road cracking. A special double spray bar emulsion sprayer – the FiberMat machine - has been created for the application of the technique.

Success of FiberMat in Mexico

Colas Inc. showcased FiberMat at the most recent World Road Congress, held in Mexico in September 2011: “Mexico is one of our target markets,” explains Georges Ausseil, President of Colas Inc. “Many roads have fallen into a state of disrepair. Our strategy is to license reputable companies to promote our products, especially FiberMat. Our first local partner, Precova, has three FiberMat machines and has already applied 5.4 million m² of FiberMat on 750 km of highway!”
Developed by the Colas Campus for Science and Techniques, the REC (Road Eagle Colas) unit is used to monitor the condition of roads, the aim being to anticipate maintenance requirements.

Since 2004, teams working at the Colas Center for Expertise and Documentation within the Campus for Science and Techniques have been developing a machine dubbed REC (Road Eagle Colas), which monitors the condition of roads at a top speed of 80 km/h. Drawing on the knowledge of the Group’s experts, the machine provides an accurate assessment of a road’s service life expectancy on the basis of a number of parameters, the aim being to anticipate maintenance requirements. Sensors acquired from Quebec’s National Optics Institute record road deformation and film the surface. The images provided are then analyzed using two software programs. The first, developed internally, focuses on the deformations. The second, developed by researchers at the Center for Mathematical Morphology at the École des mines engineering school, detects cracks and grades them according to how serious they are, how far they extend and their position. These results are then collated. Having tested and calibrated the technology at several of the Group’s sites in France and the United Kingdom in 2011, the REC prototype unit, towed using a four-wheel drive vehicle, will be available to road subsidiaries and subsidiaries specializing in monitoring road surface conditions from the first half of 2012.

REC examines the road surface from every angle.
In Mauritius, Colas acquired a 50% stake in Gamma Materials Ltd., a specialist in the production and sales of construction materials.

In Mauritius since 1987, in July, Colas reinforced its foothold on the island with the acquisition of a 50% holding in Gamma Materials Ltd., a company specializing in the production and sale of construction materials there. With three rock quarries, five crushing sites, two ready-mix concrete plants and two block manufacturing plants, Gamma Materials Ltd. produces around 2 million tons of aggregates, 150,000 m³ of ready-mix concrete and 12 million prefabricated blocks per year. It also has access to material reserves amounting to more than 40 million tons.

In Morocco, Smac has acquired Sofima Maroc Etanchéité, a company founded in Casablanca in 1966 and the Moroccan market leader in the waterproofing and cladding sector. The deal fits squarely with Smac’s international development drive.

In France, Colas Rail has acquired Ateliers des Flandres, a company based in Hazebrouck (northern France) specializing in the maintenance and servicing of freight wagons. And in the Ardennes region, the Godet limestone quarry and the GTMC cement-bound aggregates plant have joined Colas Est and Screg Est.

From Mauritius to Morocco, Colas is growing
In Indonesia, a new bitumen depot, with a capacity of 4,600 tons, has opened in Belawan, on the island of Sumatra.

Last year, ABS, the Indonesian subsidiary, opened Indonesia’s fifth bitumen depot. With a storage capacity of 4,600 tons, this new unit is located in Belawan, in the Medan industrial zone, on the island of Sumatra. The region boasts considerable development potential in terms of road infrastructure. To monitor the quality of the bitumen, ABS has built a control laboratory, the biggest private facility of its type in the region.

In Vietnam, Colas’ ADCo has also acquired a new bitumen depot and set up a laboratory there. Located in Go Dau, 75 km south-east of Ho Chi Minh City, this plant has a storage capacity of 5,200 tons. The site occupies an area of 14,000 m² and by 2014 it will boast a PMA* plant, a bitumen emulsion plant and a unit that produces sacks of premix (storable cold mix). These investments are fully in line with ADCo’s strategy of handling the entire bitumen distribution chain. The new Go Dau plant is designed to accompany the significant growth forecasts in the region: the national demand for bitumen is set to increase by 35% over the next four years.

* Polymer Modified Asphalt (binders).
Originally dedicated to the transport of aggregates on behalf of Colas subsidiaries, Colas Rail’s freight activity now encompasses other goods, for private customers outside the Group.

Created in 2006, Colas Rail’s freight activity took a strategic step forward in 2011. “We decided to expand our customer base. Previously, we focused purely on transporting aggregates for internal customers, from Colas’ quarries to its jobsites. So we started prospecting for new customers with their own wagons, outside the Group. And our efforts have paid off”, explains Patrick Guénolé, President of Colas Rail. “We secured our first private rail haulage order, for the transport of rapeseed oil and cereals,” adds Jean-Paul Lévy, General Manager of Colas Rail’s freight profit center. In 2012, the activity is set to grow further with the addition of a contract to transport vehicles manufactured by PSA Peugeot Citroën. Colas Rail’s responsiveness, modest size and customer proximity were the factors that won over Gefco, the car manufacturer’s logistic arm. In order to meet this newly generated demand, additional train drivers and ground agents have been hired and trained. The contract signed with Gefco is for a period of three years. “The prospects for the future are promising. We are now the fourth largest player in the French rail freight market, behind Fret SNCF (80%), Euro Cargo Rail and Europorte”, explains Patrick Guénolé.
A partnership agreement has been signed between ICAM Lille (French engineering school) and Colas Rail, which will contribute to the teaching of the specialized Master’s degree program in railway engineering.

Colas Rail has signed its first partnership agreement with an engineering school, namely, ICAM Lille. The company will contribute to the teaching of a specialized Master’s degree in rail engineering, a top-level international qualification created several years ago in association with Bombardier Transport and Montreal’s Ecole polytechnique engineering school. Under the terms of the partnership, employees will deliver some of the teaching modules, giving Colas Rail the opportunity to promote its activities to the young engineers of the future, the ultimate aim being to hire the most motivated among them. “Young people are relatively unaware of the opportunities in the rail sector but it’s a profession with a promising future ahead,” explains Cyril Chatellier, General Manager of Colas Rail’s South and East catenary profit center. “Having professionals go into the school to teach exposes students to the reality of the sector and establishes a dialogue that is beneficial for everyone.” As far as Jean-Michel Rigaut, head of the Master’s program at ICAM Lille, is concerned, “it is through partnerships like this that our school is able to forge a close relationship with industry. Colas Rail was a logical choice of partner for the rail aspects of our teaching program. Colas Rail has real expertise, with numerous professions and a high international profile. And what’s more, we share the same values.”
The Axim marking products site in Noyon (northern France) won the 2011 Hand’Innov award in the subcontracting category, for its commitment in support of the assisted sector: three ESAT* disabled people are working alongside the entity’s teams.

Purchasing from the assisted sector*, i.e. subcontracting activities out to bodies or companies employing disabled people, fits squarely with Colas’ responsible development policy. Through the indirect jobs generated, it also allows the Group to meet its legal obligations regarding the employment of disabled workers. In May 2011, Colas made a commitment, via an agreement signed with Agefiph**, to increase its purchasing from the assisted sector in mainland France by 30%. A practical guide was distributed to staff responsible for purchasing to this effect. “It sets out the three rules to be followed: make useful purchases, at market rates, from service providers who employ disabled workers”, explains Antoine Cristau, Diversity manager. The Group has decided to concentrate on the maintenance of green spaces and the restoration and production of stakes for use on jobsites. “By purchasing from the assisted sector we’re fulfilling our commitments in terms of responsible development and usefully meeting our obligations, while benefiting from competitive prices for services of equal quality,” concludes Jean Lalo, Purchasing Manager France. ■

* The assisted sector comprises the protected sector (ESAT: body facilitating integration into the mainstream labor market for people with disabilities) and adapted sector (EA: adapted companies).
** French fund management association for the professional integration of disabled people.

HUMAN RESOURCES

Purchasing from the assisted sector
At an increasing number of urban regeneration or tramway sites, subsidiaries are training young people with no qualifications with a view to helping them into the workplace.

The social integration of people in difficulty – and particularly young people without qualifications – is one of Colas’ priorities as part of its diversity policy. A number of its subsidiaries train young people from underprivileged neighborhoods, mainly as part of public contracts including integration clauses. For example, the Agence nationale pour la rénovation urbaine (Anru – French national agency for urban renewal) in Trappes and La Verrière (northwest of Paris) has included an integration clause in all its calls for bids in the last four years with a view to promoting employment: 5% of all the hours worked on jobsites must be done by people in difficulty from “sensitive urban zones” (ZUS). Far from being a constraint, this system is seen as an opportunity by Colas Ile-de-France - Normandie (IDFN) Yvelines, giving it the chance to uncover new talent. The contracts proposed range from two weeks to over a year and may even lead to permanent jobs in some cases. “We hired a youngster on an apprenticeship contract for a period of two years”, recounts Philippe Simarik, head of the Colas IDFN Yvelines profit center. “Seeing that he enjoyed the work and that he fit in well with the teams, we encouraged him to study for a vocational high school degree. If all goes to plan, he’s likely to be offered a job at the end of it all.”
As part of the Group’s proactive approach to the health and safety of its employees, an “Alcohol and Drugs” toolbox has been developed and distributed to French subsidiaries.

Last fall, all French subsidiaries received an “Alcohol and Drugs” toolbox. A Colas Human Resources Department initiative, this CD-Rom was designed and developed by a group of preventive health inspectors, human resources managers and field operators, with the support of an occupational health physician and addiction specialists. The tool is based on the results of addiction awareness campaigns run by subsidiaries. “The Group decided to set up a common risk prevention initiative covering drugs and alcohol”, explains Hugues Decoudun, Colas’ Occupational Prevention, Health and Work Environment Manager. “The aim is to help subsidiary managers tackle instances of addiction, with the proviso that the approach should be one of prevention rather than repression.” Brimming with information and good practices, the CD-Rom sets out the procedures to be put in place, as well as existing training programs. Officially launched in November at Head Office, to coincide with a lecture delivered by Professors Costentin and Goullé on “workplace accidents linked to drug use”, the “Alcohol and Drugs” toolbox should be seen in the wider context of the Group’s proactive approach to employee health and safety.
Hervé Le Bouc handed over a check to Anurat Tiamtan, Chairwoman of Tipco, a Thai subsidiary, demonstrating Colas’ support for the flood victims in Thailand.

Thai solidarity: Tipco comes to the aid of Thai victims

Thailand was ravaged by unprecedented flooding in 2011. After a first wave of floods affecting the south of the country in March, a second episode devastated the center of the country, including Bangkok, in the fall. The millions of victims included the families of 250 employees of Colas’ subsidiary, Tipco. The company immediately set up a Flood Relief Program Working Committee in March to help those affected. Kasidis Chareancholwanich, Tipco’s Director of Business and Support, in charge of the committee, recounts: “From the very start, the Supsakorn family, a shareholder in Tipco, donated clothing, bags, shoes and accessories to be sold at a fundraising auction. The operation was repeated on a larger scale in December with vintage Bordeaux wine. Our suppliers and customers also donated money, and a total of over 8 million Baht (€190,000) was raised. Tipco didn’t just help its own employees who had been affected, but also other Thais, distributing some 12,000 food parcels: a colossal task! This year, we want to help our employees rebuild their houses.” The Group has demonstrated its support for the cause by donating around 2.2 million Baht, i.e. over €50,000.
Meetings, visits, awards ceremonies, recruitment campaign, cultural events... Some images of the Group’s events, in France and around the world.

> WELCOME TO THE MIONS SITE
Last September, Perrier TP (Colas Rhône-Alpes – Auvergne) opened up its Mions quarry site to the public. The numerous visitors got a chance to enjoy the sand sculptures on display at the site.
ROYAL VISIT TO CANADA
The town of Yellowknife congratulated NWT Construction Ltd. (ColasCanada), which completed the redevelopment of Somba K'e Civic Plaza in time for a visit by Prince William and his new wife.

PRESIDENTIAL VISIT TO MOROCCO
His Majesty King Mohammed VI greeted French President Nicolas Sarkozy for the launch of the Tangiers-Casablanca high-speed rail link project. Hervé Le Bouc was also present for the occasion.
GTOI celebrates 30 years

The Reunion Island subsidiary GTOI (Grands Travaux de l’Océan Indien) celebrated 30 years of business in December, with a reception held at the Saint-Denis Exhibition Center.

Colas Foundation private viewing

Fourteen new canvases on the theme of the road were added to the Colas Foundation’s collection in 2011. They were unveiled at a private viewing held at the Boulogne head office.
**RECRUITMENT: FINDING NEW TALENT**
The Group has launched a highly colorful advertising campaign (seen here in the Paris metro) as part of a recruitment drive to hire 200 trainee engineers and managers in France.

**NEW STAND FOR STUDENT FORUMS**
Colas has a new multi-brand recruitment stand in France. Modern, bright and fun, the space has been designed to highlight the diverse nature of the Group’s activities.
**SCREG SUD-EST HONOURED**

At the French Mayors’ and Local Authorities’ Convention (SMCL), Screg Sud-Est won the 2011 public works award for its actions in the field of chemical risk prevention.

**SACERLIFT® A WINNER**

Sacer Atlantique won the SMCL innovation award for Sacerlift®, a process used to renovate and maintain mineral surfaces.
COMIC STRIPS WIN GOLD
At the 2011 Fimbacte festival, Colas won the Environment Gold Award for the design and publication, since 2002, of comic strips aimed at raising employees’ awareness of road safety.

AWARD-WINNING “ON THE ROAD TO SCHOOL”
Colas’ corporate solidarity program “On the Road to School” won the sustainable development prize awarded by the Communication & Entreprise association.
On November 8, the 71 new members of the Group’s Skilled Workers Guild enjoyed a tour of head office in Boulogne and the Campus for Science and Techniques.

Last September, the Perasso quarry (Colas Midi-Méditerranée), in Marseille Saint-Tronc, opened its doors to the public. Different activities were organized for the occasion.
In September 2011, Colas took part in the 24th World Road Congress, held in Mexico City. The Group promoted its expertise in the French pavilion.

In December, 80 Group emulsion plant managers from around the globe traveled to Marseilles. On the agenda: health, safety, environment, and more.
“ON THE ROAD TO SCHOOL” IN CROATIA
Supported by Colas as part of the Colas Life corporate solidarity sponsorship program, two local NGOs, Suncokret and Vimio, are helping to rebuild the country, with a focus on education.
Colas Circle

David Mangin

“Incorporate more secondary roads into town planning documentation and reality to create a city that is more accessible to everyone.”

The road through the eyes of...

Jean Reno

“The road is associated with some extreme emotions.”

Colas Life

Croatia

“Oh the Road to School” helping to rebuild a country.

Colas Foundation

Odile Ferron-Verron

“Machines ask themselves the same questions as us.”
David Mangin is an architect and town planner, winner of the 2008 Grand Prix de l’urbanisme (town planning prize) in 2008 and he is professor at the Ecole Nationale des Ponts et Chaussées (French Civil Engineering School) as well as the Marne-la-Vallée School of Architecture. He has written several books including: Projet urbain (1999), Infrastructures et formes de la ville contemporaine - La ville franchisée (2004) and La ville passante (2008).

David Mangin

“Incorporate more secondary roads into town planning documentation and reality to create a city that is more accessible to everyone.”

Architect and town planner, winner of the 2008 Grand Prix de l’urbanisme and teacher, David Mangin advocates “a permeable town”, rather than the secure juxtaposed spaces resulting from the road design logic of the 1960s. A vision laid out in several books and presented last October to the Colas Circle.

What role do roads play in town development?

David Mangin: All town planning activities should integrate the role of roads into the development dynamic of contemporary towns and cities, roads that are made for and by cars. We mustn't forget that the car has long since been perceived – and still is – as a fundamental symbol of liberty. In the 1960s, suburbs began to be structured – gradually and on a large scale – around highway exit roads, bypasses and...
traffic circles, all of which have become powerful drivers of urbanization. A consequence of the ascendancy of the motor car, supermarkets and hypermarkets with their visible car lots (“no parking, no business”) sprang up in the 1970s. The highway network facilitated access to inexpensive land visible from the road. And then, in the 1990s, the number of houses soared, creating residential zones that were closed in on themselves and only accessible by car. This gave rise to a distended town. These trends led to the proliferation of juxtaposed, enclosed bubbles (houses, shopping and business districts, parks, logistics, etc.) and what I refer to as “the franchised town”, accessible by highways studded by franchises (Ikea, McDonald’s, Formule 1, etc.), areas in which public space has been taken over by private space.

Is this a European phenomenon or a global one?
D. M.: Although urban structures aren’t always deposited in the same way in Europe, the United States and China, this network of fast roads characterizing the “franchised town” is something that can be found everywhere.

Why is this model no longer viable?
D. M.: The supremacy of the car is beginning to wane for reasons that are well known: oil resources are running out, the energy crisis, increasing fuel prices, etc. But there are other less apparent reasons too, such as longer life expectancy: houses are hemmed in, creating a reliance on cars in our day-to-day lives. But you can’t drive at any age! Sometimes it is necessary to go around a particular zone to reach a point that is actually very close by as the crow flies. Take Rosny near Paris, for example: this is a prominent regional shopping district, built on the A86 highway, cut off from the surrounding districts by topography and infrastructures. There is ample parking space and very soon the RER express interurban train line will be joined by the new subway: this is a great opportunity to optimize sites of this type!

What do you advocate?
D. M.: Today, some towns are trying to introduce public transport corridors to reduce the space allocated to cars. It’s more difficult, however, to leave behind the model of enclosed juxtaposed environments. The “permeable town” represents an alternative town planning solution, based on a change of paradigms, a reversal of priorities. Traffic is replaced by journeys, roads by public spaces, speed by fluidity, intersections by traffic circles, the subway by trams, visible parking lots by invisible parking lots, etc. By creating networks of interlinking secondary and minor roads, journey times are reduced and zones will be opened up. The transport hierarchy is reversed: we’d move from the “car/two-wheeled vehicle/on foot” scenario to the “on foot/two-wheeled vehicle/public transport/car” scenario. The idea is to not only invest in major infrastructures but to create porous towns, with ordinary streets rather than just highways.

Does that mean demolishing existing infrastructures?
D. M.: To build a “permeable town”, it isn’t necessary to start again from scratch. Existing networks can be optimized. Major shopping malls could be redesigned on the basis of mixed road/public transport access. Residential parcels could be made denser if owners were allowed to build extensions and if local tradesmen, for example, were encouraged to set up business at the heart of private residential zones. By definition, this would lead to greater functional and social variety.

Can you give us an example of a town that could go down this route?
D. M.: The sustainable town is one which is capable of evolving on the basis of a system of road structures that is pretty much stable. In this respect, Melbourne in Australia is managing to create a cohabitation of major infrastructures. It is a successful, thriving city, with a variety of parks, green spaces, sports facilities, etc. Areas of varying densities and with different atmospheres sit alongside one another: there are low-rise districts, with comfortable one and two-storey houses for all generations, particularly for the elderly, and high-rise districts with buildings containing both offices and homes. The zones are mixed and animated, with different landscapes, networks on various scales, etc. The ordinary has been turned into the extraordinary!
How do artists perceive the road? What memories does it conjure up?
To find out, Routes has introduced a new section: “The road through the eyes of…” And to set us on our way, Jean Reno.

Jean Reno

“The road is associated with some extreme emotions.”

The road is associated with some extreme emotions but what immediately springs to mind for me is a road in South Africa. A safari that turned into a play. Curiously, the road became a stage. Animals appeared, hung around the vehicle for a short time and then disappeared after having performed to their audience. A lion stood immobile just three meters away, then a cheetah and other exotic animals. Each time it was the same scenario. They appeared, had a look around and disappeared again. I really felt I was watching a play, that I was right there in the middle of a show in which the animals were the actors and in which Nature had all the roles.

I’ve taken a lot of roads in my life. There’s one road in Italy where I learned my father had died. I was making a film in Salmonetta – an English comedy – up in the hills. In the film, the main character’s wife is sick and, since there is very little room in the cemetery, he doesn’t want people to die. I travelled across the plain every morning because my hotel was outside the village and I always took the same road to reach the set. And it was on this road, one morning, that I found out my father had died. The scenario, that road and the death of my father have become inextricably linked.

And then there is the route du Destet, in Provence, near the Baux hills. It’s a green road, protected and wild, maybe the road of harmony. There are olive trees set against the backdrop of the Alpilles hills. Locals say that whenever they feel sad, they take this road.
“On the Road to School”
helping to rebuild in Croatia

Third port of call for “On the Road to School”: Croatia. This time, Colas Life’s corporate solidarity initiative is lending its support to two local NGOs, each helping to rebuild the country by focusing on education.
Most people wanting to discover Croatia head to the Adriatic Coast, to Dubrovnik and Zagreb. The sea there is a wonderful turquoise and the monuments are testimony to an immensely rich heritage. But should people look no further than this beautiful coast and the country’s modern capital in order to really get to know Croatia? Wouldn’t it be better to head off the beaten track, away from the tourists, and experience another side to the country? Go, for example, to Gvozd or Vukovar where the scars of the war in ex-Yugoslavia (1991-1999) are still clearly visible and the economic difficulties facing the country are very real?

**Suncokret: a ray of sunshine in Gvozd**

Todd Strynadka, Technical Services Manager with Terus Construction, a subsidiary of ColasCanada, and his daughter Rachel have had a glimpse of ‘the other side’ of Croatia. As part of the ‘On the Road to School’ initiative they went there to observe the actions on the ground of two NGOs supported by Colas. Their first stop-off was at Gvozd. This small town south of Zagreb was hit hard during the war and is still struggling to get back on its feet. 40% of the town’s people are native Serbs who have returned home, and 60% are Bosnian refugees or displaced persons from within Croatia itself. “These populations were previously at war and have had to learn to live side by side overnight. There was therefore a huge lack of trust and a complete absence of communication”, explains Maja Turniski, manager of the Suncokret center in Gvozd, alongside Predrag Mroavić and Sanja Erbkić Kovacic. The center was set up to promote reconciliation between the different communities and provide support to people still traumatized by war. Today, beyond reconciliation, the aim is to help the town’s citizens contemplate the future with optimism, focusing on education as a way forward. Hence, after school, all the children of Gvozd can meet up there to get extra help with homework, take part in educational activities, etc. Suncokret plays an important role in the wider community, offering cultural and sporting events. To quote Todd Strynadka: “Gvozd is a very small town, where nothing much happens…Suncokret represents hope”.

**Vimio: tackling inequalities**

Vukovar lies in eastern Croatia, on the border with Serbia. The town is infamous for having been the symbol of Croatian resistance against its Serbian aggressors during the war. The town was almost entirely destroyed and the statistics speak for themselves: 2,000 people killed, 1,400 people missing and 2,500 injured during the three-month siege (1991). At the end of the conflict, tensions between the two communities couldn’t have been worse. To aid the reconciliation process, Vimio (the Vukovar Institute for Peace, Research and Education) was set up in 1999. In recent years, relations between the various ethnic groups have improved and the NGO has changed its focus, concentrating on education with, in particular, the creation of the ‘Let’s pool our efforts’ program. Through this project supported by Colas, pre-school children (between the ages of 6 and 7) have had access, since 2011, to compulsory preparatory education previously unavailable to them for financial reasons. “Vimio contacted me to offer my child a place on a pre-school program. Without it, my son wouldn’t have been able to benefit from this schooling because I can’t afford it”, recounts one mother.

**The importance of local support**

Todd and Rachel’s experience in Croatia had a profound effect on them: “We saw things that we’d never come across before, difficult situations, but we also saw people giving their all to the project. It’s incredibly encouraging”. As for Suncokret and Vimio, Todd is impressed with the decision that was taken to use local NGOs to spearhead action on the ground: their efforts are rendered far more effective by the fact that the personnel involved know everyone. A sense of proximity exists that international NGOs might not necessarily have been able to instill. “In any case, ‘On the Road to School’ has made us aware of the fact that despite our own professional and family commitments, it is sometimes enough to just give a little bit of our own time to improve things”. As for Rachel, she’d like to return to Suncokret to work as a volunteer…

**Croatia**

**Economic Disparities**

Croatia became an independent country following the breakup of ex-Yugoslavia as a result of the separatist wars that ravaged the Balkan peninsula from 1991 to 1999. In economic terms, disparities have begun to emerge between the urban and coastal population and the rural population. And these disparities are even more apparent in provinces bordering Serbia and Bosnia-Herzegovina still scarred by war. The country believes that joining the European Union will improve conditions in the country.

To find out more:

[www.ontheroadtoschool.com](http://www.ontheroadtoschool.com)
You opted to depict excavators and other site machines in your compositions. Where did you get the idea for your theme?

Odile Ferron-Verron: A chance encounter! I had been long since been interested in wasteland, abandoned industrial sites, areas where nature has regained the upper hand over a civilization that is gradually being eroded. And one day, on a detour around a building site, I realized that the machines, these pensive shells, had something to tell us about themselves!

What is the relationship between the machines and us?

O. F.-V.: The machines seem to be asking question. To a certain extent, they are a metaphor of man. I often depict them beneath a sky of relentless blue, indifferent and on neutral, desolate ground: the setting reflects their vulnerability and their questioning of existence. The bucket I’ve painted for the Colas Foundation is wondering which path it is going to take within the endless landscape surrounding it. The possibilities are endless.

Familiar as you are with job sites, how do you view the public works sector?

O. F.-V.: I love going out to sites because I couldn’t conceive of painting without observing “my” machines. I want to depict them as accurately as possible: they have to be fit for purpose but, of course, there is still room for a degree of creativity. For me, a job site represents a gathering of momentum, a meeting. You get caught up in it! Although initially intrigued, the people that work on these sites are soon proud of the benevolent and respectful depiction I offer of their universe…