Morocco
Colas plays key role in major projects
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Cover photo: Mosaic pillars inside the Mnebhi Palace, Marrakech, Morocco.
Fostering entrepreneurial spirit
Being creative
Developing responsibly

If we are to face the bumps that lie ahead of us in today’s durably troubled, unpredictable environment, our strategy and our actions must more than ever be bolstered by principles built upon a vision.

The cornerstones of this vision rest upon our own fundamentals, that which makes us proud to belong to the Colas Group, that which gives meaning to our daily actions and underlies our beliefs and our behavior.

This vision hinges around three key ideas: fostering entrepreneurial spirit, being creative, developing responsibly.

Fostering entrepreneurial spirit. You love challenges. You enjoy building, managing risks, discovering new horizons, working as a team. You control and manage risks with rigor, turning them into opportunity. This is the foundation of Colas’ business development model based on the profitable growth that made the Group a world leader.

Being creative. You are a pioneer and a groundbreaker. Your vision is one step ahead of the others. New locations, diversified business opportunities, new offers for new markets, technological, social, societal, environmental innovation: Colas is conquering new frontiers every day, backed by deep local roots inherent to its businesses and the strength of a Group with a global approach that fosters convergence and sharing.

Developing responsibly. The most vital thing a company can do is provide high quality services and products to its clients at competitive prices. But it also has the duty to develop responsibly. Corporate responsibility means focusing on human issues: opening up jobs to diversity, safety, training and promoting employees. Corporate responsibility also covers society as a whole, via environmental protection, ethics and aid to countries that welcome us. Colas has chosen to act as a responsible corporate citizen.

These three key ideas have formed Colas’ corporate identity, setting the Group apart from others. This vision shows that we are a group of men and women with strong entrepreneurial spirit, a powerful sense of solidarity, men and women who invent and use eco-responsible technologies every day, with the aim to create and maintain transport infrastructure, for today and tomorrow.

Fostering entrepreneurial spirit, being creative and developing responsibly means knowing how to juggle constraints with the freedom to grow and dream. Dream, then dare to make that dream come true.

I would like to challenge each of you to make this vision your own and to make it come true together. This is how Colas will continue to pave the way forward even through the storm.
The port of Terenez in Brittany, France needed to be partially redeveloped in order to make the seaside promenade more accessible, make the sidewalks wider and extend the parking lot. However, Terenez is a listed site, protected by the Natura 2000 charter, a fact that had to be taken into account in the project planning. Colas Centre-Ouest in Quimper (Morlaix sector) was therefore particularly attentive to the choice of materials. The organic deactivated concrete selected contains no solvents and respects the environment. It also has another advantage in that it shows the natural color of the aggregate. Gritted and grass-seeded ecomineral paving slabs were laid. A mixture of soil and stone was used for fill, while sanding was performed with 100% recycled glass cement. The work was interrupted over the summer to enable sightseers to take full advantage of this attractive site, but has now been completed. 
Colas Madagascar hits the heights

100 meters high, 42 meters long and 20 meters wide, Tower 786, nearing completion in the Ankorondrano business district in Antananarivo, is breathtaking. With thirty stories, it is the tallest building in the Indian Ocean islands. And a first for Colas Madagascar, which has shown its ability to construct high-rise buildings.
Colas Danmark completed the widening of the M3 motorway – the ring road around Copenhagen – in early August. The project, begun in 2005 and divided into four contracts, has transformed a 4-lane road into a 6-lane road. The teams at Colas Danmark wrapped up the final phase. The Transport Ministry wanted the work to be done in the summer, when the traffic is much less intense. Normally, nearly 125,000 vehicles use the M3 motorway everyday, but traffic drops off significantly in the summer. So as to not disrupt traffic, teams mainly worked in the evening and at the night. Another noteworthy point: 126,000 square meters of noise-reducing asphalt (Rugosoft®) were used.

FRANCE

A safer road

To increase safety on the Centre Europe Atlantique road, the former national road linking the A20 in the Creuse département and the A71 in the Allier has been converted into a four-lane highway. The contribution of Colas Rhône-Alpes-Auvergne consisted of four separate projects. Colas Sud-Ouest’s Limoges profit center was also involved, as was Colas Est, which provided a mobile mixing plant, and Aximum, which installed the safety barriers and noise walls.

DENMARK

Completion of M3 motorway project

Colas Danmark completed the widening of the M3 motorway – the ring road around Copenhagen – in early August. The project, begun in 2005 and divided into four contracts, has transformed a 4-lane road into a 6-lane road. The teams at Colas Danmark wrapped up the final phase. The Transport Ministry wanted the work to be done in the summer, when the traffic is much less intense. Normally, nearly 125,000 vehicles use the M3 motorway everyday, but traffic drops off significantly in the summer. So as to not disrupt traffic, teams mainly worked in the evening and at the night. Another noteworthy point: 126,000 square meters of noise-reducing asphalt (Rugosoft®) were used.
A new stadium in Lille: responsible development

The Lille/Dunkerque profit center of Colas Nord-Picardie is taking part in the Lille Grand Stadium project. The teams are redeveloping a freeway interchange and – in a consortium with the Wawrin branch of Screg Nord-Picardie – an access ramp from Boulevard de Tournai. Warm-mix asphalt incorporating reclaimed asphalt pavement or RAP (3E+R) and noise-reducing surfacing (Nanosoft) are being used on the two sites. The Grand Stadium project meets responsible development requirements and involves a total of 20,000 hours’ work by people on job market entry schemes.
In October 2010, Sacer Atlantique’s Bonnefoy Palmier profit center received an unusual request... from the La Vallée des Singes primate reserve. It was asked to lay out the habitat of the reserve’s new residents, nine bonobo apes. The park wanted the bonobos to be able to roam freely but also wanted to make sure that visitors would be safe. Since bonobos are afraid of water, it was decided to build a moat 500 meters long and 10 meters wide between the wooded one-hectare island where the bonobos would live and the visitors’ observation point. The challenge for Bonnefoy Palmier was to finish building the retaining walls and the waterproofing geomembrane, on clayey soil, before the cut-off date. Work had to be completed before the park reopened in early April 2011. The builders were slowed by snowstorms last November and December. And they also had to cope with the enthusiasm of the primates, wandering around and eager to help out. Despite all these setbacks, Bonobo Island was completed on schedule and opened by the prefect and the president of the general council of the Vienne department.
To combat piracy off the Somali coast, the Japanese defense department signed an agreement with the government of Djibouti to build an air base at the international airport. Colas Djibouti, in a consortium with a local company, was awarded part of the project. The work involved constructing a 30,000 m² aircraft parking area and a taxiway to the airport’s runway. It also included access roads and drainage, vehicle parking areas, the slabs of the hangars, as well as housing for the 300 Japanese military personnel who will be deployed at the base. Despite the very short eight-month deadline and the lack of drawings before work started, the highly motivated team of experts, totaling some 120 people, have done a flawless job.

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A29: for the future canal

As part of the project to build a navigable Seine-Northern Europe Canal between the Oise River and the Dunkerque-Escaut Canal, the Amiens profit center and the Technology and Development Department of Colas Nord-Picardie, along with Helary TP (Colas Centre-Ouest), worked to lower a 1.2 km section of the A29 highway by eight meters to allow the future waterway to pass overhead on a canal bridge.
The six apartment blocks in the Verdi complex, located in the Grand'Mare district east of Rouen in Normandy, had lost their former luster. A massive refurbishment and restructuring project was undertaken as part of an urban revitalization scheme. The Building profit center of Colas Ile-de-France - Normandie and Jouen (Screg Ile-de-France - Normandie) were awarded the contract for the project. Working on an occupied site, the teams did everything to keep disturbance to the residents to a minimum and, above all, to maintain ongoing dialogue. For example, a mediator was appointed, briefings were organized for the tenants, a regular newsletter was delivered, and a fully refurbished show apartment featuring new wiring, heating and decor was opened for inspection. As a result, the three-year project went off smoothly.

Working at night, teams from Colas Martinique successfully laid a 7-centimeter layer of porous asphalt mix percolated with cement slurry as part of a restructuring project at the Port of Fort-de-France container terminal. This is the first time the technique – which is ideal for surfaces such as storage areas that are subject to high mechanical stress – has been used in the tropics.
Cap Ferret: a bike path that blends in

With its concrete surfacing matching the color of the Pyla Dune sand and its timber separators, the bike path through the village of La Vigne to Cap Ferret in south-western France blends perfectly into the surrounding landscape. The project was carried out by Van Cuyck TP (Scrg Sud-Ouest).
The Fleuré bypass on Route RN 147 between Limoges and Poitiers is a fine example of synergy within the Group. The Colas Centre-Ouest profit center in Châtellerault, the Screg Ouest and Sacer Atlantique profit centers in Poitiers, together with Aximum, built and marked this 7.5-kilometer section of four-lane road. They were supported by several other units: Bonnefoy Palmier (Sacer Atlantique), Hélay, Erco and the Airvault and Châteauroux centers of Colas Centre-Ouest. Responsible development products and processes were used throughout, including 25% reclaimed asphalt pavement, the Active Joint® process, which helps prevent surface cracking, and the Coletanche® waterproofing membrane. This two-year project involved around 60 people at the busiest periods.

FRANCE

Piecing a high school together

The Marianne hotel management and catering high school in Montpellier is a true architectural feat. The exterior cladding and mastic asphalt waterproofing were entrusted to the Toulouse - Acier branch of Smac Sud-Ouest. The process for attaching the triangular components was developed by a Lyon-based team from Smac Eurofaçade before work began.
The Istria highway: a showcase for Signalinea

A 120-km four-lane highway has just been built in Istria in northern Croatia. Teams from Signalinea, Aximun’s Croatian subsidiary specialized in road markings, were responsible for the safety equipment and markings, including median strips, crash barriers and MultiDot paint, which offers high nighttime visibility in rainy weather.
With its synthetic grass and rainwater retention pond, the new football stadium in Plan-de-Cuques near Marseilles scores points for the environment. The project was not an easy one. Harvesting rainwater from the stadium and the nearby avenue required a pond with a capacity of 2,600 m³. But because the stadium is located in an urban area, the lack of space seemed to pose an insoluble problem. So teams from the Bouches-du-Rhône Provence agency at Sacer Sud-Est built two ponds, one of them under the parking lot. The second special feature is the use of the Sacerpack® process for the artificial grass. In accordance with the standards set by FIFA and the French Football Federation, this technique, which combines synthetic grass with a layer of porous asphalt, produces a more even, better drained surface. The result is a field that will serve several generations of soccer players!

FRANCE

Epinay-sur-Seine: demolition in kid gloves

Teams from Brunel Démolition and Genier-Deforge, deconstruction subsidiaries of Colas Île-de-France – Normandie, brought down a group of buildings as part of a project to revitalize the Paris suburb of Epinay-sur-Seine. The teams' top priorities were safety, welfare of local residents and environmental protection.

FRANCE

Green makeover for the Les Ambrosis stadium

With its synthetic grass and rainwater retention pond, the new football stadium in Plan-de-Cuques near Marseilles scores points for the environment. The project was not an easy one. Harvesting rainwater from the stadium and the nearby avenue required a pond with a capacity of 2,600 m³. But because the stadium is located in an urban area, the lack of space seemed to pose an insoluble problem. So teams from the Bouches-du-Rhône Provence agency at Sacer Sud-Est built two ponds, one of them under the parking lot. The second special feature is the use of the Sacerpack® process for the artificial grass. In accordance with the standards set by FIFA and the French Football Federation, this technique, which combines synthetic grass with a layer of porous asphalt, produces a more even, better drained surface. The result is a field that will serve several generations of soccer players!
The project to expand Bukowska Avenue in Poznań into a four-lane highway aims not only to improve traffic flow and safety on this busy thoroughfare but also to increase its capacity. The road, which links the airport to the A2 highway and the football stadium, must be able to accommodate the heavy traffic expected for the Euro 2012 soccer championship*. Work began in November 2009 and was undertaken by Colas Polska in a consortium. It included application of Rugosoft®, a noise-reducing skid-resistant asphalt mix that cuts rolling noise by 7 dB (A); installation of noise barriers; construction of bridges, networks, drainage; and road markings. What’s more, the Edwardowo Gate, an early 20th century brick archway weighing 40 tons, had to be moved 40 meters, or some 132 feet. This major project has given Colas Polska an excellent calling card for the future.

*Hosted by Poland and Ukraine.
Brussels city center gets a makeover

Part of the charm of Brussel’s Grand-Place is the surrounding pedestrian area. Since April these streets have undergone a major refurbishment. The teams from Wegebo, a subsidiary of Colas Belgium, have been laying natural paving stones and cobblestones, plus borders in Belgian bluestone. Working in such a bustling, lively area has necessitated a precise phasing schedule.
Sita France, a Suez Environnement subsidiary specialized in waste processing and recovery, selected Perrier TP’s earthworks and demolition center (Colas Rhône-Alpes - Auvergne) to extend its landfill in Grenay near Lyon. Work started in January and will last 15 months. The project covers earthworks, construction of the passive barrier to seal the landfill, installation of a bentonite liner for the waste storage cells, and lastly construction of roads to access the cells. The earthworks operations have already been completed. They required 18 earthmoving machines. 1,100,000 m³ of material was excavated at a rate of 7,000 m³ per day. More than half of this material (600,000 m³) was reused as filler for the embankments or stored on-site to be used as required by the project developer. The remaining 500,000 m³, consisting of noble materials, was removed from the site.

Vegeclair® goes south

As part of the renovation of the esplanade in front of the town hall in Cuzorn, in Lot-et-Garonne, south-western France, the Colas Sud-Ouest branch in Agen used asphalt with Vegeclair®, a fully-recyclable carbon-negative binder. Vegeclair® is also transparent, allowing the natural color of the aggregate to show through.
FRANCE

A4: more synergy

To enhance driver safety on highway A4, Sanef* began to upgrade a 113-km stretch of road between Metz/Saint-Privat in Moselle and Fresnes-en-Woëvre in Meuse. The project was handled by the teams from Sceg Est Grands Travaux, Colas Est’s Metz profit center and Côte-d’Or and Meurthe-et-Moselle branches. Colas Rail hauled the aggregates, and Aximum took care of the marking and signing. Yet another story of successful synergy!

* Société des autoroutes du nord et de l’est de la France (“Northern and Eastern French Highway Company”)

SWITZERLAND

Fribourg: a colorful start to the school year

At the end of August, the children from four schools in Fribourg were in for a surprise when they went back to school after the summer holidays: colored surfacing had been installed over the break! Colas Suisse’s Mittelland profit center was awarded a contract to apply 8,600m² of colored asphalt mix in specially designed shapes. In front of the buildings, the surfacing was divided into some 100 triangles with light gray, dark gray, yellow, white, red and green outlines. This kaleidoscope was punctuated with grass and gravel areas. The rear of the buildings was bordered with white geometric shapes. While the Mittelland profit center already had some experience in colored mixes, this was the first time they had surfaced such a large area and in so many different colors.
To divert heavy truck traffic away from the village of Chanos-Curson in south-east France, the Drôme General Council contracted Colas Rhône-Alpes - Auvergne and Sacer Sud-Est to build the D532 bypass. The teams from Perrier TP (Colas Rhône-Alpes - Auvergne) were responsible for the earthworks, the capping layer and drainage, and the teams from the Ardèche-Drôme profit center (Colas Rhône-Alpes - Auvergne) and the Sacer Sud-Est branch in Valence did the surfacing on this 6-km section of road. The 44,000 tons of asphalt mix were manufactured at a low temperature with a high percentage of reclaimed asphalt pavement (RAP): 35% in the base course and 30% in the wearing course. This 3E®+R process, which combines warm asphalt with RAP, saves both energy and materials, and reduces greenhouse gas emissions.

Under a four-year lease signed in October 2008 with the metropolitan area of Greater Nancy, the Drainage and Environment Division of Screg Ile-de-France - Normandie renovated the sewer drainage system using a trenchless installation technique called continuous lining, which significantly reduces nuisance for neighboring residents.
en route
Colas Morocco’s renowned expertise deployed on major projects

Since the king, Mohammed VI, launched a program involving major development projects in 2005, infrastructure work has been multiplying in Morocco. This has given the local subsidiaries an opportunity to demonstrate their know-how. From Casablanca to Tangiers, via Kenitra and Rabat, here is a roundup of the work in progress.
The Rabat tram, which went into service in May 2011, was built by GTR and Colas Rail. The tram links the capital city to Salé on the opposite shore of the Bouregreg River.
Trams, high speed railway lines, motorway upgrades, manufacturing sites, street-scaping... the many projects under way in the kingdom offer the Moroccan subsidiaries opportunities to deploy their know-how and innovative techniques.

One tram leads to another

In Casablanca, the streets of the city center are always busy, but since the beginning of the year they have become even busier with the new tram construction site. After the capital Rabat, Morocco’s largest city is installing a tram system and, as on the Rabat tram, Colas is actively involved in the project. The consortium of Colas Rail and the Moroccan subsidiaries LRM, GTR and Urbis Signalétique won the contract for Sector 2, which comprises the civil engineering works and the installation of 9 km of tracks, as well as the ancillary work, including all the cables and pipelines and the road surfacing, along an 800-meter section through the city center. “The experience we gained in Rabat gives us the confidence to handle the kinds of things that come up on this type of project,” explains François Dillies, civil engineering operations manager at LRM. “The most complex aspect is managing relations with neighboring residents... especially since we are building the most central part of the track.” The work is scheduled for completion in mid-2012 and should go into operation at the end of 2012.

Quality development

To support the development of the capital city, Rabat, Terminal 1 of Rabat-Salé Airport, which has been closed for three years, is to be reopened. The national airport authority, Onda, wants to increase the annual number of passengers using the airport from 400,000 to 1.5 million. After more than 1/4 of national production

Colas’ emulsions business in Morocco is split between three companies: Colas Emulsions, Smet and Somebo. Colas Emulsions has three manufacturing plants – in Rabat, Meknes and Agadir – and a warehouse in Tangiers, Smet has a plant in Marrakesh and Somebo has a plant in Oujda. With annual production of around 30,000 metric tons, Colas Morocco’s emulsion plants account for 25% to 30% of national output. Some 60% is used by Colas Morocco companies.

François Dillies

CHANGE IS STIMULATING

In 1981, François Dillies joined GTE (since renamed GTOI), a Colas subsidiary based on Reunion Island. He had just completed his military service and wanted to stay on the island to put his experience as a site foreman to use. François was rapidly promoted to superintendent. Over the years, he rose through the ranks and traveled a lot. “I spent 28 years in the Indian Ocean, between Reunion Island, Mayotte, Mauritius and Madagascar. I signed up for expatriation and like the stimulation of a new job!” Now in Morocco, François is area manager at LRM, as well as civil engineering operations manager on the Casablanca tram project. “On this type of project, the main thing is to keep calm and take time to think.” They say that wisdom is the fruit of experience.
For the first time in Morocco, RAP was used on a section of motorway.

Reclaimed asphalt used on a motorway for the first time

The motorway between Tangiers and the capital is a vital link. Not long ago, a team from GTR’s Rabat center did overlay work on the Rabat-Kenitra section. It was an innovative project because for the first time in Morocco the asphalt contained 17% reclaimed asphalt pavement (RAP). “We were selected by Morocco’s national road company, ADM, on the basis of this technique,” explains Houssam Aidi, superintendent. “The customer understood the economic benefit of this option, which also fits in perfectly with ADM’s environmental policy.” The central laboratory in Casablanca contributed to this initial experience, which

> a call for bids for the roads and ancillary works (including the access roads to the terminal, the esplanade in beige asphalt, the street furniture, signs and road markings, all the cables and pipelines and annex buildings), Onda selected GTR and Urbis Signalétique. “This project was an opportunity for us to show that GTR knew how to build more than just roads,” explains Romain Lassonery, head of GTR’s Rabat profit center. The work was completed in just three months, and involved more than 150 employees. The result is impressive: the stone columns and rows of vegetation look stunning and, as the architect intended, are reminiscent of the famous square around Hassan Tower.

> REINFORCING THE RABAT – KENITRA MOTORWAY

84 km
including toll areas and interchanges

300,000 metric tons of mix

4,500 metric tons laid in a single day: a record!

17% RAP content
used two asphalt plants with peak production rates of 370 metric tons an hour. Impressed by the project, ADM awarded GTR with another motorway section, between Asilah and Sidi El Yamani, closer to Tangiers. “On this project comprising a total of 75,000 metric tons of asphalt, we are going to try to raise the RAP content to 20%,” adds Houssam.

Renault-Nissan plants: gigantic projects

If one had to pick a single flagship project from the many in which the subsidiaries are involved, it would probably be the Renault-Nissan plants being built in Meloussa, outside Tangiers. On a 300-hectare site, a massive manufacturing complex is

KHALIL HABIBI

MUTUAL LOYALTY

Khalil Habibi knows GTR like the back of his hand. After all, he has been working for the company for 32 years. “I got my first job here and look forward to finishing my career at GTR!” He remembers his first project as if it were yesterday: widening and reinforcing a road in Sidi Slimane. A works manager taught him the job. “GTR is an excellent company: the staff are very professional and there’s a real team spirit.” His most memorable projects include building a runway at Casablanca Airport and the Rabat-Kenitra motorway, which he has just finished. “We broke productivity and scheduling records. I have never seen anything like it!”
RABAT-SALE AIRPORT
GTR and Urbis Signalétique
built the roads and surrounding outdoor areas in just three months. The columns are reminiscent of the famous square around Hassan Tower in Rabat.
> rising from the ground. It will eventually comprise three assembly lines, with an annual production of 400,000 vehicles. The teams from GTR have been involved since the work began in 2008. "As part of a consortium, we did the earthworks, amounting to 4 million m³ of cut and 3 million m³ of fill," explains Tarik Jordane, superintendent at GTR's Tangiers profit center. "Since we were already on the site and had shown our reliability, the customer asked us to build the temporary platforms for the companies working on the site. After that we installed main services on a large sector," Urbis Signalétique was also involved, building the test track for vehicles that come off the assembly lines, for example. GTR is already bidding for the contract covering the installation of the second assembly line.

Projects starting up after the summer
Not far from the Renault-Nissan plants, the high-speed train to Agadir will flash past in a few years' time. The national high-speed rail plan provides for a 1,500-km high-speed network based on two main lines: the Tangiers-Agadir Atlantic line (running through Rabat, Casablanca, Marrakesh and Essaouira) and the Casablanca-Rabat-Oujda Maghreb line. Construction has just begun on the first section between Tangiers and Kenitra. GTR has been awarded a contract involving earthworks.

"The project involves 5 million m³ of cut, 2.5 million m³ of fill, and 505,000 m³ of noble materials in floodplains," explains Faïçal Lahmansi, manager of GTR. "The problematic aspects of the project are threefold: the type of soil (pelitic, clayey soils), management of waste rock – we need to find land for disposal – and access to noble materials. We need to identify high-quality quarries in proximity to the site."

Back in Casablanca, a new major project is starting for LRM: upgrading a highway bypass of the country's economic capital. The contract is part of the 2011 motorway upgrade program. After 175,000 m² of planing, the teams from LRM’s Casablanca center will lay 120,000 metric tons of asphalt along a 50-km section. "As for the work on the Rabat-Kenitra section led by GTR, we are going to use 20% of RAP, explains Vincent Grossi, manager of LRM's Casablanca center. There's no doubt, Colas Morocco's expertise, environmental know-how and business techniques are an asset!"

BORIS BAGEZ-BERNET
THE TRAVEL BUG
On the construction site of the Renault-Nissan plants in Tangiers, you can hear the singsong accent of south-western France! Site foreman Boris Bagez-Bernet began his career with the Group at the Scrg Sud-Ouest office in the Landes département. "I always wanted an overseas job, and Morocco was my first choice... maybe because I met my fiancée here on vacation." His first project overseas was the Rabat tram. It was a successful first run and GTR management decided to assign him to the Renault-Nissan project.
"On this project, I'm also training local employees and learning Arabic at the same time!" This unique experience has given him a taste for other international projects... with his Moroccan wife.
Alaska is the biggest state in the USA, measuring over 660,000 sq. miles, and also has by far the harshest climate. In Chefornak, a village of several hundred souls in western Alaska a few miles from the Bering Sea, Colas Inc.’s subsidiary Colaska is building a new airport. The site is essential to the daily lives of the local population. “Like a lot of small towns in Alaska, Chefornak is in the middle of nowhere,” explains Ben Northey, president of Colaska. “And because there are very few roads given the nature of the land, planes are the main means of transport. The Alaska Department of Transportation & Public Facilities (AKDOT&PF) owns and manages 256 rural airports across the state. Air travel is a way of life in rural Alaska, since 82% of Alaskan communities are not served by roads. Chefornak needed a new airport with a bigger runway to fly in more freight.”

Quality Asphalt Paving (QAP), a Colaska subsidiary was asked to carry out the $17.5 million project. A project in several stages
Work started in January. Over a three-month period, 150,000 cubic yards of material was blasted and hauled to the Chefornak airport site.

Extreme project near the Bering Sea

ALASKA
• 49th state of the United States
• Area: 663,268 sq miles
• Population: 710,000
• Capital: Juneau
• Most populated city: Anchorage
• Official language: English
• Currency: US dollar

A logistics challenge, a team of specialists, a race against time, in particularly difficult weather conditions, this autumn, Colaska is completing the first stage in the building of a new airport in the remote village of Chefornak in Alaska.
The inhabitants of Alaska receive supplies primarily by air. The state has 256 small rural airports scattered around its territory.
This first phase called for considerable organization in terms of logistics to cope with the extreme geography and weather. "The western part of the state is covered by tundra, which is very wet under the surface," says Ben Northey. "It’s impossible to travel over or to build on, and much less to transport materials." To carry blasted rock from the quarry, located 5.5 miles from the site at the foot of Cheeching Mountain, it was necessary to build an ice road (see, p. 31) last winter.

Phase 2, which started in spring 2011, consists in building the new runway foundation on a subbase almost one yard deep. It is scheduled for completion this fall. In spring 2012, when winter is over, the foundations will be covered with a 12-inch crushed aggregate surface course. Other work in 2012 will include runway & taxiway lighting and the construction of two buildings to house snow-clearing equipment.

Harsh winter

The QAP teams had to cope with freezing temperatures and work in extreme conditions throughout the winter phase of the project – when

> KEY FIGURES FOR THE CHEFORNAK TEMPORARY ICE ROAD

5.5 miles length of the ice road built to carry materials to the worksite

1,500,000 gallons of water used to build the ice road

> At the height of the project, around twenty drivers, excavators and drillers were involved, along with the site manager. On days when there were snow storms, they had to go back to camp."
they were not confined to their specially built base camp during snow storms. "These interruptions are obviously very frustrating for the team, since they don't get to go home in the evening," says Ben Northey. "Most of the employees are local people, recruited by QAP to work on the project. Usually they only work during the summer, owing to the climate. The project is a real opportunity for QAP. By training locals, it gains an experienced workforce for future projects."

Making airports a specialty

This type of airport project isn't a first for Colaska. Quite the opposite. "We are often called on to build runways or handle maintenance. In general we manage three to five airport jobs a season. We recently worked at Fairbanks and Anchorage on contracts worth $30 million each."

QAP recently completed the second phase of a project to rebuild and lengthen the runway of the international airport in Anchorage. The work also included installing new runway lights and ultra-sophisticated systems to enhance plane approaches, as well as renovating the water drainage system.

Colaska also brings its expertise in airports to more modest projects, such as the one in Yakutat, in southeastern Alaska. Yakutat is located 200 miles from the nearest town, with no mobile phone network and just one monthly link by waterway. During the summer, Secon, another Colaska subsidiary, renovated the runway of the local airport using the surfacing materials reclaimed from the roads of the village, and then renovated the roads. It also developed a water drainage system.

Leadership in construction

Colaska is the leader in heavy civil construction in Alaska, by reason of its varied services: earthworks, production of aggregates, emulsions and ready-mix, supporting structures in reinforced concrete, road markings, etc. "We are the only ones working all over the state. The expertise of our employees in quality control, project engineering and logistics management is particularly renowned," says Chris Humphrey

CHRIS HUMPHREY
A QUESTION OF LOGISTICS

Chris Humphrey, 28, joined QAP in 2004. He started out in quality control, in parallel with his studies, before being promoted to project engineer in 2005. He particularly appreciates the company’s projects in western Alaska: "Things are always unpredictable, and you never know what the weather’s going to be like. It's really motivating, especially in terms of logistics. A project like the Chefornak airport is no exception to the rule. A good 90% of the problem is logistical, with the remainder concerning construction. You have to be very well organized and not forget anything. The most complicated thing is getting everything to the site. Most of the material is transported by barge in the summer, so at just one moment in the year. If you forget something important and can’t get it shipped by air, then you sometimes have to wait for the return of warm weather."

How do you build an ice road?

The recipe is simple in theory – mix plenty of water with ice shards and snow – but complicated in practice. First of all the contour lines, relief, climate and water availability have to be analyzed. This last factor is essential and in the end determines the path of the road. Construction also requires the prior authorization of the landowners and a number of government agencies. And if the water in question contains fish, the amount of useable water is reduced – or even completely forbidden. Last, care must be taken during construction to ensure that the road is thick enough to take the weight of the trucks and goods without damaging the environment.
Another component of the project was this road made of crushed aggregate, 1 mile long and 13 feet wide, between the village of Chefornak and the other towns and villages around the new airport. Because of the climate, it is not surfaced.
Ben Northey, who adds: “They don’t call Alaska the ‘last frontier’ for nothing. It means that there are still a great deal of development opportunities, particularly in the road network. The last new road alignment dates back to the 1970s! Increasingly, we are seeing more preservation projects versus reconstruction projects. New markets will also be developed.”

Clearly, Colaska’s impressive references, which include the Chefornak ice road, will continue to attract both public and private customers in this land of extremes!

JON FUGLESTAD
MOTIVATION, TRAINING AND EXPERIENCE

To quote Jon Fuglestad, vice-president of Colaska and general manager of QAP, “Our main asset is our people and their professional experience in tough conditions. Not to mention their motivation. The Chefornak project is also very positive in terms of local hiring. When you call on regional inhabitants, people hear about it quickly. We have been successful in finding good workers to train in our techniques and methods, which means we can hire them the next time we may be in the area. Given the often difficult working conditions we encounter, we appreciate being able to recruit people we know and trust for our new projects, people we trained for previous projects.”
Foremen, drivers and project managers... they all do their jobs with enthusiasm and have decided to share their daily routine and projects with us.

JEAN-CHRISTOPHE DEUX
DEPUTY MANAGER
GAMMA MATERIALS LTD (GML)
MAURITIUS

Jean-Christophe Deux is a true globetrotter. His travels began at the Group in 1996, with an internship as an engineering student at the Blanchard quarries in Martinique. The experience confirmed his desire to work outside of France. He did his national service in Mauritius, again with Colas, working on road construction projects. Immediately afterwards he was appointed project engineer at Colas Guadeloupe, then promoted to sector supervisor in 2002. “Each new job is a chance to make progress,” he says. In 2004 he became head of the Rabat profit center in Morocco with GTR. He then moved on to Reunion Island, where he worked as agency supervisor for Colas Reunion Industries (CRI). He returned to Mauritius on June 1, 2011 as deputy manager of Gamma Materials Ltd, 50% owned by Colas. The new job is a satisfying challenge for Jean-Christophe, a native of the Anjou region and a firm believer in the mixing of cultures.
**Fantastic experiences through my job**

BRANDI DAVEY  
PROJECT MANAGER  
COLAS LTD  
GREAT BRITAIN

Brandi Davey, an engineering school graduate, didn’t particularly intend to work in construction and public works. “It happened by chance, when I got a job at the Highways Agency* in 2005. I liked it so much that I did a Masters in construction management. Then I started working on airports for the Defense Ministry,” she says. She joined Colas Ltd, in 2009, as project manager at the Airport Infrastructure division. “It’s a really interesting job, very varied, and I get to travel,” she says. Brandi lived on the Falklands from July 2010 to May 2011, working on the Shackleton project to renovate the military airbase on the islands (see Routes issue 26, p. 20). “It was a difficult project, especially because we had to make sure we didn’t disrupt life at the military base or keep supply planes from coming and going.” Brandi is now back in Great Britain, managing major projects for the Airport Infrastructure division. She is currently working on renovating runway number one at Manchester International Airport. “I hope Colas Ltd will come up with other fantastic opportunities for me like this!” she exclaims.

*National highway agency in Great Britain.
“Moving from tracks to QSE was a challenge!”

LAURENT VOLMAR
QSE OFFICER
COLAS RAIL
FRANCE

After working as a foreman at Dassault, in 2004 Laurent Volmar joined the urban rail branch of Colas Rail in Ollainville outside Paris, as a rail fitter. His brother, a welder, was already working for the company. Laurent soon showed what he was capable of. After just six weeks, the head of the center asked him to supervise three employees working on track maintenance on the tram system in Caen, Normandy. Two years later, after attending a training program, Laurent joined the team working on the tram tracks in Le Mans. 2008 was a turning point in his career: he became a QSE (Quality, Safety, Environment) Officer. With the support of his branch manager, Laurent underwent IT training and learned his new responsibilities on the job: monitoring the safety targets and ensuring they are applied, updating quality procedures, inspecting lifting equipment, supervising training at the center, and raising employee awareness of the dangers of alcohol and drug use on the job. He is also still the reference person for aluminothermic welding and maintenance work for the Caen tram system. With his two hats, Laurent has first-hand knowledge of site issues and an ability to listen and help others.
“Transmitting expertise and interpersonal skills”

GILLES PIERSON
PRODUCTION MANAGER
SACER PARIS-NORD-EST
FRANCE

Born into a family of farmers, Gilles Pierson likes the open air. This no doubt motivated his decision to join the Sacer Paris-Nord-Est agency in Vesoul in 1973, where he discovered the world of public works.

He quickly rose through the ranks, starting out as a worker then carrying out technical monitoring in a laboratory before going on to take care of the newly created sales and production department for structure waterproofing and special products. He travelled to Strasbourg and Grenoble, then joined the construction side. “I particularly liked the ten years I spent as project manager, a cross-disciplinary job with a great deal of autonomy, like running a company.” Gilles then worked as an agency supervisor for nine years, before becoming production manager for the east, a role in which he is also entrusted with cross-disciplinary functions, as head of the internal training and tutoring unit designed to support young people arriving at work sites in the Greater Paris area. The objective is to sharpen their curiosity and stir their enthusiasm for the profession so that they can build a career as rich and fulfilling as Gilles’. This task of transmitting expertise and interpersonal skills also corresponds to his passion for field work and human relations.

ROUTES No. 27 – October 2011
“Walking the Way of Saint James”

**Nancy Bastien**
Assistant Vice President, Accounting and Taxes, Colas Canada

Nancy Bastien set herself a challenge when she joined Colas Canada as accounting director back in 2004: to prove herself in an essentially masculine work environment. Mission accomplished, it would seem, since in July 2010 she was promoted to Assistant Vice President Accounting and Taxes, managing four employees.

“We work with the vice-president of finance, making sure that accounting procedures are respected, drawing up financial statements, handling company tax and preparing budgets.”

A happy member of the Colas Canada team, she was touched by the enthusiasm shown by her management and colleagues when she announced her decision to walk the last 300 kilometers of the Saint James’ Way to Santiago de Compostela in Spain with a dozen other Canadians. The sporting achievement was organized to raise money for the Canadian Cancer Research Society. “It was all about going beyond your limits and also the result of my personal development, especially since I had joined forces with a good cause.” The adventure took ten days. “Walking eight hours a day called for considerable physical and spiritual strength. It’s a little like our path through life. It wasn’t always easy but I had an extraordinary time.”
Long live internal mobility!

LAURENT BRUNO
WORKS MANAGER
SMAC SUD-EST
FRANCE

After obtaining his degree in civil engineering and infrastructure, Laurent Bruno joined Colas in 2003. The rail subsidiary Seco-Rail, today Colas Rail, was recruiting young talents at the time to support its development. Laurent was assigned to the Paris Major Projects profit center. He travelled around France working on the modernization of the railway network. In 2004, he was appointed to a position in Lyon. He liked working on railways – the only disadvantage was that he had to move around a lot because the projects required a considerable level of technical skill that has to be acquired in the field. And what Laurent wanted to do was settle down. “I wanted to stay with the Group whatever the subsidiary, since each one is a leader in its sector and gives you the chance to work on major projects.” So Colas proposed that he joined the Smac works office in Chalon-sur-Saône – and change his activity from railways to waterproofing. For a year, Laurent worked on the Cité Internationale project in Lyon, before moving back to his native Burgundy. Today he works on sites in the Saône-et-Loire département in Burgundy. Thanks to internal mobility, professional fulfilment and personal development now go hand in hand!
“Team management means a lot to me”

ALFONSO CATARINO
PRODUCTION MANAGER
AXIMUM ELECTRONIC
PRODUCTS
FRANCE

Alfonso Catarino joined the Colas Group when the Urban Systems business of Sagemcom joined Aximum in June 2010. Before Sagemcom, he was involved in the rollout of optical fiber and GSM in the 90s, and then worked as product quality engineer in the development of a set-top box. At Aximum Electronic Products, Alfonso is production manager for Urban Systems, supervising the manufacture of electronic equipment for cities, such as traffic lights, traffic control systems and automatic access bollards. “Before, I managed mass-produced products. Products today are more personalized, which makes things more interesting.”

A fan of team sports, Alfonso appreciates the emphasis Aximum places on team management. “At Sagemcom my unit was just a small one among many others. At Aximum my expertise and that of my team are unique in the company and so considered far more valuable.” A perfect recipe for boosting performance!
Joao Luis Vieira Da Silva never gives up. In 2005, the tendon in his right foot was severed during a particularly violent mugging. Despite several operations he did not regain full mobility and was unable to return to his job as a builder at Colas Genève. Determined and an optimist at heart, Joao Luis didn’t give up and refused to opt for disability insurance. This determination convinced his company, which, with the help of SUVA, the Swiss national accident insurance office, gave Joao Luis the chance to drive a dump truck for two weeks to test his abilities. He came through with flying colors and received all the assistance necessary to pursue this line of work. He took first-level machine operator courses, got his license, and then took another course to be able to drive heavier machines. “In April 2009, after five operations and over 100 hours of physiotherapy and re-education at home, I returned to full-time work,” Joao Luis says proudly. This exemplary retraining was made possible by the combined efforts of SUVA and Colas Suisse, but above all by the courage of a motivated employee.
Skilled workers pave the way forward

MARTIAL CHOUQUET
MULTI-VEHICLE OPERATOR
SCREG ILE-DE-FRANCE -
NORMANDIE
FRANCE

At Colas subsidiaries in mainland France they are called “Compagnons of the Golden Diamond”. Sacer companies refer to them as “Top Level Compagnons”, Screg subsidiaries as “Compagnons of the Green Ribbon”. The members of the “Compagnons de la Route” skilled workers guild at the Colas Group share a common aim: to help staff on a day-to-day basis and feed back problems and best practices alike. An essential role, and one that Martial Chouquet took on with pride in 2007. Martial joined Screg Ile-de-France - Normandie in 2004 as a machine operator. Today he is a multi-vehicle driver and boasts the ideal qualities of a Compagnon de la Route: attentive, exemplary and patient. “We act as correspondents at sites, informing, listening, ensuring everyone’s safety, and thinking about possible improvements.” As vice-president of the “Compagnons of the Green Ribbon” at Screg Ile-de-France - Normandie, he regularly meets with the vice-presidents of the Compagnon orders of the other subsidiaries and agency heads to discuss a range of issues. Enthusiasm is at the heart of the way Martial coordinates the 62 “Compagnons of the Green Ribbon” at his subsidiary.


" Routes No. 27 – October 2011"
“My experience has made me a versatile man.”

Jean-Claude Victor is a self-made man. Having joined Blanchard in Martinique as a worker in 1972, he is now the oldest employee at a quarry that produces and sells 200,000 metric tons of eruptive rock a year. After nearly 40 years’ experience, the Croix Rivail quarry in Ducos holds no secrets for Jean-Claude.

Self-taught, he has acquired impressive expertise over the years, gleaned from his hands-on experience in the field. His know-how – covering everything from welding to electricity – is so varied that the managers who trained him in the past now come to him for advice! Today Jean-Claude is in charge of installation. He maintains machines, handles crushers with disconcerting dexterity and knows the equipment like the back of his hand. So what motivates him? “I make sure the equipment works perfectly. That way we can meet production deadlines and ensure the safety of all staff.” Even though Jean-Claude has been assisted by a two-person team for 18 years, he will be sorely missed at the site when he retires in two years’ time.
Tramways: multimodal know-how

Trams are once again a feature of the French cityscape, giving the road, rail and signaling subsidiaries of Colas an opportunity to utilize their know-how in public transport infrastructure and urban development. That multimodal expertise is in demand in France and around the world.
ngers, June 25, 2011. The “rainbow” tram, so called for the colors of its cars, today made its inaugural journey. Colas Rail worked on the entire line, 12.3 km long and dotted with 25 stations, while Sacer Atlantique, Screg Ouest and Colas Centre-Ouest handled infrastructure for a 3.2-km section including seven stations and a park-and-ride facility.

One month earlier, in Tours, a model of the future tramway, with a design scheme by artist Daniel Buren, was revealed to the public at a town fair. Work began in July 2010 and the service is scheduled to come into service in autumn 2013. Colas Centre-Ouest, Screg Ouest and Sacer Atlantique are building the parking lots at Tranchée and the bridge over the Cher, Colas Rail is installing the catenaries and strong-current equipment and Aximum the track signing.

**Trams make a comeback**

Tours, Dijon, Paris (T3, T2, T7), Lyon, Le Havre, Casablanca... orders for trams keep flowing in to Colas subsidiaries. Tram systems are back in fashion, especially in France. Trams disappeared from French cities in...
THE TRAM IN REIMS: A CONCESSION OPERATION

Since April 2011, the tramway in Reims has been running its colored trams between the district of Orgeval in the north of the city and the Champagne-Ardenne high-speed train station in Bezannes in the south-west. Members of the construction consortium – Colas Est, Screg Est and Colas Rail – were actively involved in the project. But the Group's involvement is not over yet! The Reims tram is a rare example of a French tram system operated as a concession (to finance, design, build, operate and maintain). Colas is a shareholder in the concession company, Mobilité Agglomération Rémoise (MARS), which financed the construction of the tram system and will operate the network for 30 years. And tram systems have a bright future ahead of them. In a second call for bids as part of the Grenelle program for the environment, the French state is investing 315 million euros in 29 projects to build or extend tram systems (152 km of track), on condition that work starts before the end of 2013.

Numerous projects ahead

“Since the trams in Nantes and Grenoble – the first ones we worked on – the Group has been involved in almost all the tram projects in France“, explains Jean-Paul Brossard, deputy managing director of roads in France at Colas. “Our road, rail and signaling and signaling subsidiaries work on streets, platforms, track installation, signs and signals. What with building, extending and maintaining lines, business is booming.” Jean Perez, head of sales at Colas Midi-Méditerranée, adds, “Under the French Grenelle environment program, a lot of projects will be launched between now and the end of 2013. Things will probably be slow in 2014, when local elections are held. But investment should pick up again after that.” For many years, only cities with more than 300,000 people considered trams, because of the cost (between 25 and 30 million euros per kilometer, which is an average of 300 million euros for one line). Now even medium-sized towns are interested in trams. “Besançon, Avignon and Aubagne are investing in tram systems, but on a smaller scale,” explains Jean Perez. They are opting for shorter trams (23 meters as opposed to 40 meters for a standard tram), which are less expensive (15 million to 17 million euros per kilometer) and require less extensive infrastructure.”

Ongoing dialogue with local residents

Regardless of their size, tram projects are fairly complex. They require major development studies with detailed knowledge of the subsoil and all existing underground cables and pipelines, and extremely accurate scheduling to be able to deliver the project by the deadline, ensure safety and keep inconvenience to neighboring residents to a minimum. “On average, it takes about three years to build a tram system. In other words, the construction work impacts the lives of local residents and businesses for a long time. It's our responsibility to minimize that impact and maintain ongoing dialogue with residents,” explains Jean-Paul Brossard. “For every site, we appoint a ‘facilitator’ to be the contact person for residents and to watch over safety issues.” One of the difficulties with this kind of project is the narrowness of the construction site. The construction companies have to work around pedestrians and cars in the six-meter-wide structural clearance of the tram.
line. “Working in such a tight space is also a challenge when you have to accommodate other trades: you have to be very flexible,” adds Hervé Le Joliff, head of the rail equipment and urban railway division at Colas Rail. To facilitate work, Aximum designed the Axibloc, the slimmest concrete temporary separation barrier on the market. “During construction, we install and maintain traffic signing for the whole site, and manage traffic flows on the adjoining roads,” explains Philippe Harelle, head of industries at Aximum. “What’s more, with 50% of the fleet of three-color intersection traffic control devices in France, we are systematically involved in the final management of road/tram intersections.”

High synergy project

The Group’s subsidiaries work together on most of the tram projects: the Colas, Sręg and Sacer road subsidiaries build the platforms and infrastructure; Colas Rail lays the tracks and overhead lines, the strong-current (electric substations) or weak-current installations and signals; Aximum handles road signage and traffic...
In Romania, the rail subsidiary Colas Rail Romania was involved a few years ago in the upgrade of two tram lines in Bucharest. In Belgium, the road subsidiary Colas Belgium was involved in moving two tram lines in Ostend. And in Switzerland, Colas Geneva is working for the fourth time on the Geneva tram network, where it is managing a highly technical project: the installation of 1,300 meters of two-way track. These projects, plus the French ones, are solid references for future bids for Bordeaux, Grenoble, Besançon, Nice and cities in other parts of the world.

“Clients appreciate the Group’s professionalism and ability to keep to deadlines because of its substantial human and material resources,” explains Hervé Le Joliff. “We are recognized by local governments for our know-how in urban infrastructure,” adds Jean Perez. “Because we have entities all over France and are therefore close to all the cities likely to build a tram system or extend their existing network, we practically cover the market.”

The Group’s know-how in tram systems is also in demand internationally. In Morocco, for example, after the Rabat tram built by GTR and Colas Rail, the consortium of the subsidiaries Colas Rail, LRM, GTR and Urbis Signalétique won the contract for the second section of the Casablanca tram network, covering 9 km of tracks (see article p. 23). In Romania, the rail subsidiary Colas Rail Romania was involved a few years ago in the upgrade of two tram lines in Bucharest. In Belgium, the road subsidiary Colas Belgium was involved in moving two tram lines in Ostend. And in Switzerland, Colas Geneva is working for the fourth time on the Geneva tram network, where it is managing a highly technical project: the installation of 1,300 meters of two-way track. These projects, plus the French ones, are solid references for future bids for Bordeaux, Grenoble, Besançon, Nice and cities in other parts of the world.
COLAS GENEVA DOES IT AGAIN

The Colas Suisse subsidiary is working on the Geneva tram system for the fourth time, to install 1,300 meters of two-way tracks.
On May 27, 2011, the Colas Group announced the next stage in its commitment to disabled people. At an event attended by the 23 vice-chairmen of the Ordre des Compagnons de la Route skilled workers’ guild, Philippe Tournier, Human Resources Manager at Colas, and Pierre Blanc, Managing Director of Agefiph*, signed a two-year agreement applicable to all subsidiaries in mainland France. The agreement sets out a number of initiatives to assist employees facing permanent or temporary disability.

**A long-term approach**

The idea for this agreement first took shape at the end of 2009, as Antoine Cristau, head of diversity at Colas, explains: “Exemplary initiatives have existed at a local level for some time, but the subject of disability was rarely addressed in a systematic, concerted manner. To remedy this, and to obtain a snapshot of the current situation, we decided at the end of 2009 to join forces with Agefiph to carry out a diagnostic and consultancy survey of all the subsidiaries concerned in mainland France. Using this snapshot, we were able to identify the main barriers and levers, and establish the action plans to be implemented.” The content of the Group agreement is based on the various diagnoses established in 2010. Any subsidiaries that so wish may sign a complementary local agreement.

**Precise commitments**

This agreement illustrates the active efforts of Colas to increase the employment of disabled people, by taking account of their situation more effectively. And because it is essential to deliver practical results, the Group has made a number of commitments in the area of job retention (modifying job descriptions, looking for internal or external redeployment solutions in the event of incapacity or disability, promoting recognition, protecting disabled workers from being laid off, etc.), integrating disabled employees (120 in two years, all types of contracts), or developing purchasing with the disabled sector.

**Initiatives conducted simultaneously**

“To meet this objective and respect our commitments, we need to change the way people think, the way they look at the disability issue,”
points out Philippe Tournier. “Changing mindsets is particularly important when you look at the statistics,” continues Antoine Cristau. “Figures clearly show that one person in every two will face disability at some point in their lives. Also, in companies, 80% of disabilities are invisible, but that does not mean they do not exist.”

Almost 500 managers will receive training to give them a greater understanding of disability and help them review the various situations possible. A special guide will also be published for managers. And a range of awareness-raising tools will be deployed for all employees: a poster campaign, a film, a booklet on how to ensure that disability is recognized, etc. For Philippe Tournier, “we will be able to globally measure the positive impact of these first initiatives by 2013, via the percentage of disabled people employed directly or indirectly by the Group. We are aiming to increase this figure from 2.12% to 3.5% by the end of the period covered by the agreement. Looking beyond figures, it is essential for disability to be addressed more effectively by all our business units.”

* Association de gestion du fonds pour l’insertion professionnelle des personnes handicapées (Fund for the employment of the disabled).
Used motor oil, like the oil recovered here at the SNPR Sylvain Joyeux profit center of Colas Ile-de-France - Normandie, is used as recycled oil or fuel. In the United States, it is used as fuel by asphalt plants.

To better monitor its responsible development efforts, Colas has introduced various performance indicators, one of which is dedicated to waste management. Since adding up the different types of waste was not a useful measurement, the Group decided to focus on one type of waste in particular, strongly linked to its business and considered one of the most polluting: used motor oil. According to Ademe*, a single liter of used oil dumped into the environment can make 10,000 liters of potable water unsafe to drink. The indicator introduced by Colas is based on the recovery rate, which is the difference in quantity between oil purchased and oil disposed of responsibly. The indicator, designed in 2009, is reliable, based on information transmitted via ExtraFi, the Group’s software. In 2010 the recovery rate was 56% worldwide and 69% in mainland France. In France, companies are required by law to dispose of their waste motor oil free of charge at approved centers. The short-term aim? A recovery rate of 75%, bearing in mind that a percentage of the oil cannot be recovered because it has been burned by the engines.

* French Environment and Energy Management Agency.
To fight against the disappearance of bees, hives have been installed at Echangeur Nantes and in six quarries in the west of France. Many more to come in the future!

The idea of installing beehives at the 20 quarries operated by the Materials Division of Colas Centre-Ouest, Sreg Ouest and Sacer Atlantique came from Stéphane Durand-Guyomard, who joined the Group in 2010 as land and environment manager for the Colas quarries in the Brittany and Pays de la Loire regions. “I wanted to help beekeepers and prove that quarries, which are often wrongly accused of destroying the environment, can provide a habitat for a wide variety of protected species, like wall lizards and sand martins.” The first beehives were set up at the Echangeur Nantes headquarters and in 6 quarries. At a presentation to the quarries’ local information committee meetings, the initiative was warmly welcomed, especially as it has already started to bear “fruit”: jars of honey were given to committee members! Henri Molleron, Head of Environment at Colas, has decided, with the approval of senior management, to extend the operation to the Group’s other sites in France and around the world, with the motto: “A protected species or a beehive in every quarry.”

*Meetings are held once a year, for each quarry, with local residents and politicians.
These protective screens, which won an award in the e-nov competition, were developed by Jean-Luc Fargier, superintendent at Colas Rail, to protect workers in tunnels from trains while providing them with air, water and light.

The results for the internal e-nov 2008-2010 competition are in! Some 143 projects from nine countries were initially shortlisted. 46 of these were selected to be presented to the jury, which awarded two employees per prize, with five prizes on offer. The special jury award went to Jean-Luc Fargier, superintendent at Colas Rail’s RTS profit center, for his eminently relevant innovations. “I began to work on sites at the age of 15, in extremely tough conditions, which are responsible for my state of health today. This is why I’m always looking for ideas to improve the safety of employees and make their everyday lives easier! For example, I came up with the idea for protective screens for employees working in tunnels, to protect them from trains while supplying them with air, water and light.” Bruno Morel, deputy head of equipment at Colas, was delighted with the quality of the innovations: “I am convinced that this approach is an effective way for disseminating best Group practices.” Go to the Colas intranet site to check out the winning innovations and www.e-nov.colas.com to sign up for the new, 2011-2013 session.
The ultra-mobile mixer at Colas Est’s Meurthe-et-Moselle profit center produces fresh concrete on demand in complete autonomy – and at optimized cost.

**Concrete on demand with the mobile mixer**

How do you produce up to 60 m³ of fresh concrete an hour on site?

By using an ultra-mobile mixer, Colas Est’s Meurthe-et-Moselle profit center acquired one last year and has since been reaping all the benefits. The machine can make concrete or surface preparation with two aggregate sizes, as well as cement-bound aggregates, self-compacting concrete and storable mixes, all directly on site. The truck is equipped with a water tank, two aggregate hopper feeders, a cement hopper, an extra bin for mixing cement or other powders, three tanks for additives (retarding and accelerating agents) and coloring agents, plus a system for adding fibers. For autonomous on-site loading, the mixer is also fitted with a crane. The control station, with a built-in computer and printer, is located at the rear of the vehicle. Today some 20 teams use this equipment. So what are the advantages? Autonomy, ease, flexibility, quantity control, choice of materials, the guarantee of having fresh concrete, and optimized costs. All in all, a very sound investment!
SARM has a new plant that can make asphalt mixes from reclaimed asphalt pavement. The RAP content can now reach up to 70%.

In October 2010, Société Alsacienne de Recyclage de Matériaux (SARM), co-owned by Screg Est and Colas Est, acquired a new-generation asphalt plant that can produce mixes with a high reclaimed asphalt pavement (RAP) content. The new stationary plant is a useful addition to the site, which has collected and reprocessed waste from projects in the Strasbourg region since 1988. SARM can now manufacture new mixes made from reclaimed road surfacing. The plant has two drums: one for aggregate from quarries, and one for RAP from old roads recovered on jobsites. The mixes it produces can boast RAP contents of up to 70%! Another feature of this innovative plant is that it manufactures warm mixes at 110°C, and can produce an alternative foam bitumen-based products using a technique that adds water. This cutting-edge equipment has a production capacity of 300 metric tons an hour and an eco-design that cuts greenhouse gas emissions. The plant’s burners run on natural gas and all combustion gases are retreated directly by the plant. In addition, fines produced by the drums are collected.
Cosson: a new green-building head office

After more than 40 years at Roissy-en-France near the Paris Charles-de-Gaulle airport, Cosson, a subsidiary of Screg Ile-de-France - Normandie, inaugurred its new head office in the town of Louvres, near Paris in June. The 350 guests (customers, local government, employees) invited to the event took part in a range of activities, including a visit of the new site. The new head office, in compliance with French green-building standard, HQE®, located in the Val d’Oise département, is certified. The facilities connected to the company’s activities – such as a waste collection center for professionals – use innovative technologies that reflect Cosson’s long-standing commitment to the environment. Examples of the company’s priority focus on responsible development include: office heating and climate control combining electricity and geothermal energy with continuous consumption monitoring; a materials negotiation platform favoring recycled rainwater run-off and electric-powered machines; and a washing facility with a 90% water recycle rate. Cosson’s very first site was located in Louvres. This, then, is a return to the company’s roots – with a contemporary slant!
Aximum has won a contract to monitor railway crossings across France. The Electronic Products unit will design the monitoring equipment and Aximum Services will conduct the preliminary studies.

France’s Ministry of Ecology, Sustainable Development, Transport and Housing has awarded Aximum a 24-month renewable contract to monitor vehicles at railway crossings throughout France. A ten-person project team was involved in preparing the bid. Aximum Electronic Products will design the monitoring equipment, and Aximum Services will conduct the preliminary studies. A total of between 50 and 100 cameras will be installed each year. The cameras will photograph any vehicle that fails to stop when the warning light flashes to indicate that a train is coming. The images will be sent to the national traffic offenses processing center in Rennes, where police officers will issue fines after checking the information. A coordination unit of ten people, based in Bordeaux and assisted by three regional coordinators, will monitor implementation. The new contract, which complements the existing contract for automated monitoring of red lights, consolidates Aximum’s positioning in automated monitoring systems, a highly demanding sector in terms of technical skills.

Aximum wins contract to monitor railway crossings
Two new road marking products, Safesigne®, Titanium free and Vegesigne®, boasting strong environmental, health and safety performance, are currently being certified on a section of Route RN2.

Road marking products set for certification

With each new year, Colas develops ever more efficient road marking products in terms of environmental respect, reduced risk for road workers, as well as improved safety for motorists, day and night. Vegemark®, certified in 2010, is a water-based paint made from oleaginous raw materials, designed to help reduce greenhouse gas emissions. Two new products are currently being tested on a section of Route RN2, a French road site used for certifying road marking products. Safesigne®, Titanium free is a particularly innovative product. As its name indicates, it contains no titanium, a metal commonly used to make road marking paints brilliantly white. Eliminating this component protects resources and reduces production costs. Vegesigne®, the latest addition to the range, developed by the Group’s Campus for Science and Techniques, contains no volatile organic compounds (VOCs) or volatile solvents. Naturally, these products also maintain and even enhance retro-reflection performance, i.e. visibility, and the skid resistance of conventional marking products.
Meetings, films, awards, signings, sports and cultural events...
Here are a few images of Group events in France and around the world.

▲ SIGNING THE MAURITIAN PRESIDENT’S VISITORS’ BOOK
When he visited Mauritius Island, Hervé Le Bouc, chairman and CEO of Colas, was invited to sign the President’s visitors’ book, in honor of the ties between Colas and Mauritius.
**CANADA: 10th ICE HOCKEY TOURNAMENT**
Wapiti Gravel Suppliers has won ColasCanada's 10th ice hockey tournament. The competition brought together 180 employees of the western Canadian subsidiaries.

**“ON THE ROAD TO SCHOOL” IN VIETNAM**
The Center for Street Children at 130 Chi Lang was renovated with support from Colas Life. Romain Termoz, head of Colas Vietnam, donated equipment and bicycles to the center.
COLASCANADA: OPENING OF GECAN LAB
The Western Canadian subsidiaries’ new laboratory, GECAN, was opened in Acheson (Alberta) in June. The lab employs about ten engineers and technicians and will centralize and disseminate technical know-how.

COLAS SUPPORTS “DESH”; AKRAM KHAN’S NEW PRODUCTION
As part of Colas on Stage, Hervé Le Bouc, chairman and CEO of Colas, signed a new sponsorship contract with the Akram Khan Dance Company in May this year. Pictured here with dancer, choreographer and the company’s artistic director Akram Khan (left) and producer Farooq Chaudhry (right).
UNITED STATES: OPENING OF CINCINNATI LAB
A center for technologies, products and processes for Colas Inc., the Colas Solutions Technology Center was opened in early June in Cincinnati, Ohio.

SCREG IDFN COMING SOON TO A SCREEN NEAR YOU
In March, the crew from Kad Merad’s first feature film, Monsieur Papa, starring Michèle Laroque as a construction company boss, spent a morning shooting on location at a site run by the teams from Scrog IDFN in Gennevilliers.
In March, Hervé Le Bouc awarded the prestigious Pivert Cristal France trophy (above) to Thierry Caussemille, president of Colas Sud-Ouest, which scored the highest security rating in 2010. The prize for best improvement was awarded to Colas Ile-de-France - Normandie, represented by its president, Jean-Paul Brossard (below).
A GOOD TERN DESERVES AN AWARD...
For its support with protecting terns in Aquitaine, the Layrac gravel pit operated by Screg Sud-Ouest was congratulated at an environmental awards ceremony.

FRENCH PRESIDENT VISITS THE A29 MOTORWAY SITE
The French President, Nicolas Sarkozy, visited the construction site of the A29 motorway run by two Colas subsidiaries as part of the preparatory work for the Seine-Northern Europe Canal (see p. 9).
When they met in Arcachon in June, the young engineers from the Screg subsidiaries did a Matisse-style mural of the highlights of their version of their "Tour de France".

COAST TO COAST ON AN ELECTRIC SCOOTER
Colas sponsored Benjamin Voron, who rode across America from New York to Los Angeles on an electric scooter. Zero carbon emissions, zero pollution!
ANNUAL MEETING OF THE COMPAGNONS DE LA ROUTE
On May 27, the vice-presidents of the French, Belgian, Canadian and Reunion Island chapters of the Compagnons de la Route skilled workers guild met at the Group’s corporate headquarters for their annual gathering.

COLAS SCIENTIFIC CONFERENCES
In June, on Colas’ Campus for Science and Techniques, Paul Colonna (research supervisor at INRA, France’s agronomic research institute and scientific advisor on sustainable development) and Jean-François Rous (head of innovation at Sofiprotéol) took part in a conference on the theme of bioenergy and the green chemistry of renewable carbon.

in the picture 67
ON THE ROAD TO SCHOOL
Supported by Colas through Colas Life, the Kekeli Center in Lomé (Togo) helps children who work at Hanoukope market find the road to school again (see p. 74).
Cercle Colas
Pierre Terzian
“Energy savings and solar power are the best alternative energy sources.”

Colas Life
Yann Arthus-Bertrand
“Thanks to the mobilization of Colas employees, the ‘On the Road to School’ program will achieve the momentum it deserves.”

Colas Life
Togo:
a new country for the “On the Road to School” program

Local initiatives
Lengguru:
Indonesia’s treasure trove of biodiversity

Colas Foundation
Piotr Klemensiewicz
“I like art to have a real function instead of being locked away in a vault.”
specialist in the economics of the oil and gas industry, Pierre Terzian shared his expert knowledge of the energy situation at the Cercle Colas. His presentation focused on oil but addressed alternative energy sources, too.

How would you describe the current global energy situation, particularly with regard to oil?

Pierre Terzian: On the global energy scene, OECD countries account for almost half of total consumption. They are the biggest consumers of all sources of energy except coal, which is consumed chiefly by Asia. In terms of reserves, the OPEC countries control two-thirds of conventional oil and are also number-one for conventional gas. Despite much talk in recent years, peak oil for reserves is a fallacy, even if production is limited. In fact, world reserves have never been so abundant: they are estimated at 50 years for oil, 65 years for gas and a century-and-a-half for coal. Countries have never been as dependent on oil and gas exports and imports as now, which explains the obsession with controlling sea and land routes given current political, human and environmental risks.
In this environment, what is the energy outlook?  
**P. T.:** It is very difficult to make predictions about energy because so many factors are involved. Disruptions to supply and demand can occur at any time. Political developments can have an impact, such as when governments decide to stimulate their economies through consumption. The involvement of financial actors in oil markets makes them more volatile. And there are accidents, like the disaster in Fukushima, which will have significant long-term consequences for nuclear energy and an indirect impact on the development of other energy sources. Technological progress obviously plays a major role. This includes techniques to extract unconventional oil and gas** and deepwater oil, even if production models are still very costly. Given these factors, predicting the world’s energy future is not an easy exercise. What is clear, however, is that the picture is changing.

What changes lie ahead for oil?  
**P. T.:** Oil consumption is growing more slowly in OECD countries than in the rest of the world, particularly the major emerging countries. Similarly, oil reserves, which are highly concentrated since five countries in the Persian Gulf – Saudi Arabia, the United Arab Emirates, Iraq, Iran and Kuwait – hold 60% of them, are also located in countries with unconventional oil, such as Canada and Venezuela. Oil production is less concentrated geographically than oil reserves. For example, the Middle East produces just twice as much as North America, the birthplace of the oil industry in the 19th century, which gives some idea of the potential there.

What about natural gas?  
**P. T.:** Natural gas is the energy source most in demand. Even before the Fukushima disaster, world gas demand was rising sharply. Unlike oil, which sometimes goes through periods of stagnation, gas consumption is increasing almost everywhere. Driven by technological progress, the non-conventional gas revolution is underway. Shale gas reserves are enormous and are altering the ranking of gas-exporting countries, currently topped by Russia and Qatar. Algeria has rich reserves and the United States could become an exporter. Europe and Asia might also be tempted by shale gas, which could fuel a bubble of surplus supply. However, there are various obstacles to shale gas extraction – costly upstream investment, the significant environmental impact of current techniques, and acceptability by the population.

What about other options? What energy sources do you think we should concentrate on?  
**P. T.:** The world is becoming increasingly aware of the need to preserve the environment. Many options are being explored, such as wind power and geothermal energy. But these solutions have disadvantages or limits. Personally, I see only two credible alternative energy sources for the very long term: energy savings and solar power. Solar energy reserves will last four-and-a-half billion years, which is the estimated lifespan of our great star!  

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*The 34 OECD member countries are: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Iceland, Israel, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

** Oil or gas produced or extracted using techniques other than the conventional (oil-well) method, i.e. from oil sands, shale, etc.
Yann Arthus-Bertrand

“Thanks to the mobilization of Colas employees, the ‘On the Road to School’ program will achieve the momentum it deserves.”

Yann Arthus-Bertrand is a photographer, reporter, documentary maker and environmentalist. He is chairman of the GoodPlanet Foundation, which he set up in 2005. Two highlights in his career have helped raise broader environmental awareness: the release of his book The Earth from the Air in 1999, and ten years later, his documentary Home, watched by an estimated 400 million people.

Acclaimed photographer and committed environmentalist Yann Arthus-Bertrand is a partner of “On the Road to School” through his GoodPlanet Foundation. We talked to him about this Colas Life program, environmentalism and corporate sponsorship.

In your book The Earth from the Air, there are some photos of roads among the many images of natural landscapes. What made you take these pictures of roads? Yann Arthus-Bertrand: The advantage of aerial photography is that it shows the way people live. I don’t photograph roads for their own sake. A road is part of the landscape and the image. A freeway interchange, for example, shows the rapid pace of urbanization. The sinuous line of a road is interesting esthetically, too.
What does a road evoke for you?
Y. A.-B.: A road connects people and brings progress. One of the people in the film 6 Billion Others (see inset) said that thanks to the road, the people in his village could get to hospital and save sick children. At the same time, some parts of the planet should not have roads to leave nature unspoiled.

Have your views of the environment changed since you first got involved?
Y. A.-B.: Yes, I think my views have broadened. Nature is my first passion, but now I’m also involved with people. You can’t have nature on one side and people on the other. They’re interconnected. For me environmentalism is humanism.

What do you think of the increasing political importance of environmentalism?
Y. A.-B.: I think it’s a good thing. Environmental issues should have more prominence in politics. We need to move beyond party divides and rivalry. Environmentalism should be a part of any political platform. The Grenelle environment program is a good example of cooperation on environmental issues, which have now become central.

Where does the GoodPlanet Foundation fit in?
Y. A.-B.: My travels and meetings have made me realize that we have reached a crisis, one we need to respond to by getting as many people as we can involved in environmental issues, through information and education. The GoodPlanet Foundation wants to contribute to that dynamic.

Your foundation is a partner of “On the Road to School”. What do you think of the program? And Colas’ involvement?
Y. A.-B.: The “On the Road to School” program aims to get more children into education, which is the second Millennium Development Goal, which 189 countries are committed to achieving by 2015. A great deal of work still needs to be done and this program is vital. On behalf of Colas, GoodPlanet identifies and runs projects that facilitate access to education. We also try to work on related environmental issues.

In the “On the Road to School” presentation video, you say, “Engagement makes people happy. People at Colas will be happy and Colas will be a happy company.”
Y. A.-B.: Social engagement does make people happy; it’s very rewarding. Getting employees involved in a good cause with strong values strengthens motivation. And it’s thanks to the involvement of employees and their interest in the program that it will achieve the momentum it deserves.

What do you think of corporate sponsorship in general?
Y. A.-B.: A company involved in sponsorship is more aware of key sustainable development issues and incorporates ethical, social and environmental concerns into its business practices. Sponsorship has also become crucial: it supports NGOs, whose action is vital for some population groups. I encourage all companies to become engaged sponsors.

What are GoodPlanet upcoming commitments and actions?
Y. A.-B.: There are several projects underway. I am working on the sequel to Home, which will be called Human. We’re also going to make a film about oceans. We plan to open a vacation center for young people to raise their awareness of the environment. It will be called House of Change.

GOODPLANET FOUNDATION
AN AIM: RAISE AWARENESS OF THE ENVIRONMENT

GoodPlanet is involved in informing the general public about environmental issues through the GoodPlanet.Info website, books on major environmental issues, posters distributed free of charge to schools, and photographic exhibitions on the beauty and diversity of nature. In 2009, the foundation launched the 6 Billion Others project. In this documentary, 5,000 people around the world answer 40 questions about life, death, dreams, transmission, and other ideas. GoodPlanet is also involved in carbon offsetting programs. In 2010 the foundation launched a campaign to get businesses to reduce greenhouse gas emissions by 10%. So far 200 local governments and 300 companies have signed the 10:10 campaign.
Set up by Colas Life, the group’s corporate solidarity platform, “On the Road to School”, is continuing its work to support children’s access to education. After Vietnam, the program is now active in Togo, at the Kekeli Center in Lomé.

Togo: a new country for the “On the Road to School” program
Located in an old quarter of Lomé, the capital of Togo, Hanoukopé is one of the city’s biggest markets. The stalls are usually run by women known as “mamas”, who often employ children, sometimes as young as five. Poor families often send their children to work for the “mamas”. These young boys and girls get up at dawn, carry heavy loads and perform all kinds of work. School doesn’t exist for them.

Supporting the Kekeli Center…

Aware of this situation, the Carmelite nuns from the Védruna charity opened the Kekeli Center inside the market in 2006 to help these child workers find the road to school again. Confronted with the incomprehension of the parents and the “mamas”, who do not understand the importance of children going to school, the staff has to dialogue on a daily basis to get children to come to the center. They also have to fight hard to continue their action, which depends on financial support. Since this year, the Kekeli Center has benefited from assistance from Colas via Colas Life and the “On the Road to School” program. To report on the action the company has supported, Jean-Pierre Demollière, head of quarry sales at Siadoux, Sograr and Sablières du Razès (Colas Sud-Ouest and Scrg Sud-Ouest), and his son Quentin traveled to Lomé in June. “When we got to the market, I realized what it meant to be here” said Jean-Pierre. “I had to report back to Group employees about the lives of the child workers and the work done by the Kekeli Center, with Colas’ support. I also had to see what more we could do to help.” Quentin described his first impressions, “I didn’t realize it would be so tough. I felt ok when I was there, just taking it all in. But it was only afterwards that I fully grasped the poverty, people’s living conditions, the child workers.”

… and its many actions

Greeted warmly at the Kekeli Center by beaming smiles and cries of “Bonne arrivée”, Jean-Pierre and Quentin met the staff and observed some of the activities: a bridging class to help older children reintegrate into the mainstream school system, a library, a motor skills workshop for small children and a painting workshop. The center also runs literacy classes for adults and organizes interaction with deaf children from a special school. Kekeli plays a leading role in combating all forms of violence against children. A member of Relutet, the network against child trafficking in Togo, Kekeli covers legal expenses, provides medical care and helps the children to reintegrate into families. Of the many actions taken by the staff, Jean-Pierre chose to report on the “street work”. “Mensa took us to the market and explained her method for encouraging children to come to the center. You have to win their trust as well as the trust of the bosses. That can be hard, but you have to persevere. Chimène, a social worker, also goes around the market informing women about their rights.” Invited to take part in a beginner’s painting workshop with children from the market, Quentin said, “We had a nice time together. There was practically no difference between me and them. We were all just young people painting.”

What next?

When we asked Jean-Pierre and Quentin what motivated them to travel to Togo, they answered in unison, “To do something concrete. What we saw here was definitely a reality check… Even if there is poverty in France, most children at least have the basics, meaning education, food and clothes. The kids here have nothing.” And what do they plan to do now that they’re back in France? “The library at the Kekeli Center has no recent books. Quentin has started to collect comics at his school. And I plan to collect books and material from Group employees.” Philippe Eponon, head of Colas Togo, appreciates what the NGO has accomplished and is looking at what the subsidiary can do to help “On the Road to School” continue its work in Togo.

“Good arrival”, a welcome greeting often used in Western Africa.

For more information about the program and the action in Vietnam, Togo and Croatia:

www.enroutepourlecole.com
Lengguru: Indonesia’s treasure trove of biodiversity

With support from Colas Indonesia, France’s Institut de Recherche pour le Développement (IRD) and Indonesian researchers mounted the first large-scale expedition into the Lengguru Fold Belt in West Papua, Indonesia. They discovered one of the world’s last unexplored territories.
all began with Kadarusman, a researcher from Sorong in West Papua, who wanted to write a biology thesis on rainbow fish in his region, specifically the Vogelkop (Bird’s Head) Peninsula. Enters an ichthyologist* and geneticist from the Montpellier branch of the IRD, Laurent Pouyaud. Interested in Kadarusman’s topic, Laurent became the co-supervisor of his thesis. This story, which began in 2007, also included Colas Indonesia from the outset. The IRD received support from the company to fund the first field expedition. “Colas Indonesia, which had supported the IRD in the past, responded positively to our application for a grant. Colas was our sole source of support and without it we would not have been able to undertake new research each year, which led to a larger-scale expedition in 2010 in the Lengguru Fold Belt,” explains Laurent Pouyaud.

Rainbow fish in a biodiversity study

The Lengguru Fold Belt is one of the last unexplored corners of the planet. Located on the remote edge of Asia, Australia and the Pacific, it is fairly inhospitable and inaccessible. The rugged karst** mountains, isolated by deep valleys, are a natural fortress for highly developed forest ecosystems and even richer biodiversity than in Brazil or Colombia. “The aim of our 2010 expedition was to study the structuring role of karst in the biodiversity of freshwater fish,” underlines Laurent Pouyaud. “As the project developed and the team formed, the theme was expanded to new disciplines – ornithology, amphibiology, hydrology, paleontology, archaeology and speleology.” Many scientists were interested in the program as the biology, archaeology and even geography of the region are relatively unknown.

A Franco-Indonesian partnership

In October 2010 Kadarusman, Laurent Pouyaud and some 50 other researchers, French and Indonesian, boarded a boat from Sorong Fisheries Academy (Apsor) and headed to Lengguru Fold Belt. The team explored five target areas: the Lengguru River, the area around Lake Kamakawalar, Kayumerah Bay and the area around Lake Mbuta, Arguni Bay and the area around Lake Sewiki, and lastly the area around the Kuweri polje***. Christophe Voy, manager of Colas Indonesia, and Victor Sitorus, vice-president of Indonesian subsidiary Wasco, visited the site and admired the beauty of the rugged terrain and especially the scientists’ work. “We chose to support the IRD for three main reasons: the importance of their research, the researchers’ professionalism and passion, and their working principles.” They added, “The discoveries they have made and will make significantly enhance understanding of biodiversity. We were also interested in supporting a program that involved French researchers, especially such a passionate group. In addition, the IRD takes a humble approach in the countries where it conducts research, and always works with local researchers. That’s not unlike Colas’ approach in the countries where it operates. Lastly, the IRD achieves excellent results on a reasonable budget: that efficient pragmatism is also a value that Colas shares.”

Unexpected discoveries

Since they returned from the expedition, the teams have been working on the results of their discoveries. They have plenty of material! “We have been able to identify at least fifteen new species of fish, including rainbow fish, gobies and a species of cave fish without pigmentation or eyes,” enthuses Laurent Pouyaud. “New species of mammals, insects and amphibians, including a frog that carries its offspring on its back, were also discovered.” The archaeologists discovered several sites with cave paintings and sculptures never previously described in Papua. The geologists observed original phenomena of karst erosion. The multi-year research program to come will deepen and broaden their research. In the meantime, Kadarusman and the researchers from IRD will share their discoveries with the employees of Colas Indonesia. A generous, human sponsorship project, like the people involved in this inspiring Franco-Indonesian story.

* A zoologist specialized in fish. **Sculpted by corrosion of the limestone. *** A large flat-floored depression covered with alluvium and enclosed by rock formations.
You were selected by the Colas Foundation. How did you address the theme of the road in your painting?

Piotr Klemensiewicz: I decided to combine pictorial principles from two series I’ve been working on for many years. From the “Stacks” series, I borrowed the idea of an object anchored in the earth, a horizon and a background. From my work on “Houses”, I kept the motif of the home, which for me is associated with roads because a road leads you home.

Your road leads up to the stars…

P. K.: I wanted to find a way to give depth to the road within the square format. So I decided to extend it beyond the horizon. That creates a contrast, which I love, between the curve of the road and the broken lines of the constellation. To give the road more presence, I let it continue beyond the frame.

Your painting will travel around the Group’s subsidiaries. What do you think of that?

P. K.: I like art to have a real function instead of being locked away in a vault: this way my painting will be in direct contact with the people who work for and visit Colas. I think that’s a really interesting approach and I commend Colas for taking the courageous step of sponsoring contemporary art. That’s quite rare in France, which is a pity, because it produces more original, more generous collections.
En route

Morocco
Colas plays key role in major projects