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Cover photo: the Buda Castle and the Széchenyi Chain Bridge, Budapest, Hungary.
The year 2014 was complicated for Colas, with a number of difficulties in addition to solid performances.

The first of these difficulties was a sudden slump in the road market in Mainland France as of the month of March. Under the combined effects of government budget cuts, uncertainties stemming from the announcement of forthcoming regional reform and the traditional post-electoral slow-down, there was a sharp decrease in local authority infrastructure investments. As early as 2012, we had anticipated a drop in business, and decided to merge our three roads brands as well as to reduce the number of subsidiaries from 16 to 7 in January 2013. The market decline – more marked and more rapid than expected – led us to implement additional adaptation measures throughout 2014. Hence, thanks to our new organizational structure and redoubled efforts, our road subsidiaries held up well.

Other difficulties related to some of our Specialized activities. Our Waterproofing and Safety and Signaling businesses had to contend with downward trending markets in France. Above all, Sales of refined products from the Dunkirk plant registered sharp losses once again, in a disastrous European base oil market. The decision has thus been taken to cease production of base oils at the end of the first quarter of 2015, with the plant being reconfigured to focus on bitumen.

In contrast, our international road subsidiaries – in Europe, North America, French Overseas Departments, Africa, Asia, Australia and the Pacific – recorded overall good performance levels, with growth in total revenue and globally satisfactory profitability figures, despite a slight slowdown for South Africa, Mauritius and Madagascar.

Likewise, our Railways business had an excellent year, buoyed by substantial progress in both its recurrent traditional markets, in France and the United Kingdom, as well as major international projects. In addition, the Pipelines sector confirmed its recovery.

And there are further reasons to be satisfied: in addition to the disposal of Colas’ shares in Cofiroute with good sales conditions, targeted external growth has continued and work-on-hand remained high at the end of December, thanks to an 8% increase in international units and French Overseas Departments. Some major recently-won contracts have already been launched, including the new coastal road in Reunion Island, long-term rail maintenance contracts in the UK and Highway 63 in Canada.

I would like to congratulate each and every one of the 60,000 people working within the Group for all they have accomplished.

In 2015, the climate will remain gloomy for the roads business in France, but outlook is much brighter internationally and in French Overseas Departments as well as for the Rail business. We must continue to remain vigilant, to adapt our structures to market trends, to improve our profitability, we must continue to constantly renew, regenerate and innovate… provided we do so, Colas will continue to grow and rise to the challenges of the future.
From Gabon to Belgium via Canada, Thailand, New Caledonia, the United States and France…
A rapid trip around the world to see the Group’s jobsites, work in progress and finished projects.

Begun in May 2013, work to renovate the square outside Château-du-Loir’s town hall, in the Sarthe region of central France, was handed over two months ahead of schedule. After the drainage work was completed, teams from Colas Centre-Ouest’s Le Mans profit center turned their attention to the earthworks and road works as well as the installation of the street furniture. To save resources and energy and avoid unnecessary transport, existing materials were recovered and recycled on-site in the new base course. To enhance the site, the customer also opted for a light-colored surfacing as well as the visually-appealing Scintiflex® mix containing crushed mirror glass that reflects the light. Throughout the work, the focus was on keeping disruption to a minimum and maintaining open dialogue with local shops and residents.
FRANCE

The Besançon tramway delivered six months ahead of schedule

As part of a consortium that included Colas Rail, Colas Est delivered the completed Besançon tramway (sector 1) after 23 months of work. The project, focusing on the section between Hauts du Chazal and the Canot bridge, concerned the construction of the infrastructures, access roads, drainage work and utilities, the laying of 7 km of track (including the track serving the maintenance center), the creation of twelve stations, the renovation of the Chamars square as well as street lighting and the installation of street furniture.
A new BRT (bus rapid transit system) now operates between the Château-Gombert science and technology park and Saint-Jérôme University, as part of the Campus plan, initiated by Marseille Provence Métropole. Lasting ten months, the road works mobilized employees from Colas Midi-Méditerranée’s Marseille, Saint-Victoret, Vitrolles and Laonçon profit centers. The project involved the creation of 3 km of bus lanes, eight stations, bike paths, pedestrian areas, two parking lots with 350 parking places and a 1,500-m² square with a station. Environmental considerations were a priority throughout the project: 20% RAP, landscaped areas, parking lots sloping towards green spaces to allow rain water runoff and reduce the need for watering, etc. Teams from Aximum’s Rognac profit center were responsible for the signs and signaling.

Demolition of the Pullman hotel in Paris

Genier-Deforge Ile-de-France, a subsidiary of Colas Ile-de-France Normandie, carried out the demolition of the Pullman hotel in the 15th arrondissement close to the Paris ring road. 80 meters high, 27 floors, 70,000 tons of concrete... Teams began by removing the upper thirteen floors, from top down, using mini excavators. The remaining floors and the two basement levels were then demolished using an ultra-high demolition excavator (55 meters), the highest of its type in France.
The newly created Buriram international racing circuit will play host to two Grand Prix events in 2015: the World Superbike (WSBK) and the World Touring Car Championship (WTCC). Thai Slurry Seal (TSS), a Colas subsidiary in Thailand, was responsible for surfacing the 4.6 km of FIA-approved track, which incorporates twelve corners designed for high speeds. The main challenge with this project concerned the transportation of materials since the site lies in a remote location 400 km east of Bangkok. TSS applied a total of 71,000 tons of mix, including 50,000 for the track itself. To ensure a better bond between the bitumen and the granite aggregates, TSS used the TPH Chemoran additive. The binders (bitumen, modified binder and emulsion) were supplied by Tipco. Carried out at the height of the rainy season, the work was successfully completed in time for the inauguration, at the start of October 2014. This new reference for TSS complements the two go-kart tracks and the two testing tracks built for Honda and Mitsubishi.
The Walk of Fame, the world-renowned sidewalk on Hollywood Boulevard in Los Angeles, California has been given a makeover. Famous for the brass stars dedicated to entertainment industry legends inlaid into a terrazzo* background, this walkway is now a major tourist attraction. The construction of a subway network, running between Downtown Los Angeles and Hollywood District, has led to a marked increase in the number of pedestrians. As a result, the condition of some of the stars had begun to deteriorate. Sully-Miller, Colas’ Californian subsidiary, was responsible for some of the renovation work.

The first stage of the process involved removing, packaging up and transporting each star to a secure location for storage. Teams then proceeded to break up the sidewalk, level it off and reinforce the base structure. The terrazzo was then applied and the stars replaced, having been restored to their former glory. All that remained was to polish and seal the terrazzo to ensure the stars of the Walk of Fame continue to shine for many years to come.

*Sully-Miller, star of Hollywood Boulevard

Material consisting of colored fragments of natural stone and marble, embedded into a cement base.
FRANCE

Rehabilitation of a waste disposal site

A specialist in site remediation and groundwater clean-up projects, Colas Environnement was awarded the contract to rehabilitate the Outre-l’Eau waste disposal site, in the Massif Central area of Central France, by Morgan Thermal Ceramics. Waste from fiber production operations (including refractory ceramic fibers) had been stored at the site for some ten years. The work consisted in confining the waste in a purpose-built storage pit with a clay roof. Teams also built hydraulic structures for rainwater management, created an automated leachate pumping and draining system and restored the natural environment. To prevent the dispersal of ceramic fibers and dust particles when moving materials, a spray ramp was installed on the roadway. Teams from TPCF (Colas Rhône-Alpes Auvergne) handled the earthworks, roads and services aspects of the project.

FRANCE

On the banks of the Seine River

Teams from Colas Ile-de-France Normandie’s Arcueil center worked on the Bercy quayside redevelopment project, beneath the Tolbiac bridge in the 13th arrondissement of Paris. On the agenda: the laying of Napoleon stone slabs, application of asphalt mix, rainwater management with the creation of a settling tank and a purification tank, networks, etc.
Teams from Colas Rail Ltd, in partnership with Network Rail and Siemens, are currently working on the Watford Junction modernization project. Watford Junction lies around thirty kilometers to the northwest of London and is the busiest rail route in Europe, with more than two high-speed trains passing through every minute. All trains between the British capital and Manchester and Birmingham use the route. The tracks and signaling infrastructures were over forty years old and were no longer fit for purpose given today’s traffic volumes. The decision was therefore taken to launch a modernization program involving the laying of 5.5 km of new track, together with the installation of 29 switches and six new catenary system structures. The deadline for the work is particularly tight, with completion scheduled for the end of April 2015.

Teamwork on a mixed development zone

For the construction of a commercial platform located in the Landes mixed development zone in Estancarbon (Haute-Garonne region of southwestern France), teams from Colas Sud-Ouest’s Saint-Gaudens profit center had logistics support from Colas Sud-Ouest’s other profit centers in the Midi-Pyrénées region and Bernadets quarries in Aurignac (Colas Sud-Ouest). Aximum’s Toulouse profit center was in charge of the signs and signaling.

Colas Rail Ltd: up against the clock!

Teams from Colas Rail Ltd, in partnership with Network Rail and Siemens, are currently working on the Watford Junction modernization project. Watford Junction lies around thirty kilometers to the northwest of London and is the busiest rail route in Europe, with more than two high-speed trains passing through every minute. All trains between the British capital and Manchester and Birmingham use the route. The tracks and signaling infrastructures were over forty years old and were no longer fit for purpose given today’s traffic volumes. The decision was therefore taken to launch a modernization program involving the laying of 5.5 km of new track, together with the installation of 29 switches and six new catenary system structures. The deadline for the work is particularly tight, with completion scheduled for the end of April 2015.
YCS Holdings Ltd, a subsidiary of Terus Construction Ltd (Colas Canada), resurfaced the runways at Prince Rupert airport, in the far west of British Columbia. One of the key features of this project was the fact that the island airport can only be reached by plane or boat. Given the weight of the equipment to be transported, the subsidiary opted to use barges.

Numerous return trips were required between the mainland and the airport site to ship the 32,000 tons of aggregates needed for the project. The bitumen was moved by truck from northern Alberta, some 1,700 km away, while the asphalt mixes were produced on-site using a mobile plant. As well as the logistical constraints, teams had to contend with another challenge: to avoid disruption to air traffic, they worked exclusively at night at maximum output before the runways reopened in the morning. A total of around fifty employees were mobilized for the operation.
Joint effort on the Nantes ring road

Colas Centre-Ouest and Aximum joined forces to carry out the rehabilitation of the Nantes ring road. The work focused on a 1,000-meter section around the Cheviré Bridge. Teams from Colas’ Nantes Sud profit center handled the road resurfacing work, with logistics support provided by the Nantes Nord, Saint-Nazaire and Gadais profit centers. Employees from Aximum Nantes handled site signaling, concrete modular lane dividers and temporary signaling. They were also responsible for permanent infrastructure, such as guardrails and gutters, as well as permanent road markings. To minimize traffic disruption, the work was carried out over four consecutive weekends.

Colas CZ renovates the D1 highway

Czech subsidiary Colas CZ is part of the consortium currently working on the rehabilitation of the D1 highway between Prague and Brno. The contract relates to two 9-km sections, the first of which was brought into service back in November, with the second section due to be completed in 2015. This contract is a first for Colas CZ as a project leader.
At the gateway to Alsace, the Retzwiller bypass

Following ten months of work, Colas Est's Haut-Rhin profit center delivered the Retzwiller bypass in northeastern France. The road is designed to relieve traffic congestion — particularly from heavy trucks — in the downtown area. The contract related to the creation of a 2,800-meter section of road, a 400-meter ramp and three traffic circles. In total, the work required 110,000 m³ of earthworks, 125,000 m³ of fill and 18,000 tons of asphalt mix.
Between 2012 and 2014, the first floor of the Eiffel Tower, 57 meters above ground level, was the setting for a somewhat unusual project. The pavilions and public spaces were transformed as part of a project designed by architects Moatti-Rivière. The previous changes dated back thirty years and the buildings and spaces were no longer fit for purpose in terms of visitor numbers, expectations and technical standards. Ten employees from Smac’s Paris Nord profit center carried out the cladding work on the three pavilions and laid the red (reflecting the Iron Lady’s original color) anodized aluminum over-roof sheeting. A mobile platform was used to carry the materials up to the first floor. The monument remained open to the public throughout the work and great care was taken to ensure minimal disruption to visitors. Some of the work was carried out at night.
When working on the project to upgrade Route 88 between Albi and Rodez in southwest France to four lanes (a project requiring 1,300,000 m³ of earthworks), teams from Colas Sud-Ouest’s Rodez profit center had to contend with a number of major environmental constraints. One of the unique features of the project, launched in March 2013, was the presence of white-clawed crayfish at the site. This is a protected species and so the teams were obliged to modify the initial route of the road and build two bridges to straddle the water courses inhabited by the fish. Rainwater management was also a specific priority throughout the project since in order to survive and reproduce, crayfish need oxygen-saturated water with a neutral pH. The Ferrié-SNS profit center (Colas Sud-Ouest), responsible for the drainage work, created several retention tanks to control, and correct if required, water quality prior to reintroduction into the natural environment. In addition, to save on energy and materials, 70,000 tons of 3E® environmentally-friendly, energy-efficient warm mixes incorporating 40% RAP were applied.
France’s third biggest port, Dunkirk, has increased its dry bulk cargo (coal, minerals, wood, iron, etc.) storage capacity with the installation of a 23,000-m² multi-cargo platform. Delivered at the end of October 2014 by Colas Nord-Picardie’s Dunkirk profit center, the facility has been designed to bear a 390-ton moving crane and a 460-ton handling crane.

To save on energy and materials and reduce transport, for the first two layers, teams used the Novafor® process, which allows the on-site cold recycling of existing materials for thicknesses of up to 50 cm. This technique was implemented using an eco-recycling system. The surface, a 30 cm-thick layer of roller-compact concrete (RCC), was applied using the same in-situ technique. A first!
After the Bay of Ouinné airport, on the “forgotten coast”, teams from Colas Nouvelle-Caledonie headed to the west coast of the main island of Grande Terre, as part of a consortium which secured the contract to extend the Koné airport area. North Province now has an airport facility capable of receiving Air Calédonie’s ATR 72 aircraft. The first stage of the project involved widening the runway by 10 meters and extending it by 350 meters. SCK, one of the quarries operated by Colas and its local partner, supplied the 85,000 tons of crushed materials required for the work. The entire infrastructure was then reinforced. 10,000 tons of airfield asphalt concrete designed by the Colas Madagascar lab were manufactured in Voh, in North Province, before being transported to the site for application. Finally, a kerosene-resistant protective solution was applied on the airport aprons.

Aximum leaves its mark on the Route Blanche

Aximum’s Annecy profit center carried out work to upgrade the road markings on a section of the Route 205 expressway between Le Fayet and the Mont-Blanc tunnel in the French Alps. The 20-km section of road, nicknamed the Route Blanche (White Road) and managed by Autoroutes et Tunnel du Mont Blanc (ATMB), serves towns along the Chamonix Valley and provides access to the Aosta Valley in Italy. Teams used a water-based paint with the environmental Ecolabel certification, NF Environnement.
Teams from Colas Belgium had just 48 hours to carry out the Pairi Daiza project!
At the end of November, 40 skilled workers completed the access road to this animal park for motorists using Route 56. The aim was to relieve traffic congestion in the village of Cambron-Casteau. An underpass was created beneath the Ath-Mons railroad to accommodate a 32-meter long, 1,800 ton pushed tunnel. Launched on Friday evening and completed on Sunday evening, the work required precise planning. Teams began with 5,000 m³ of earthworks before creating a twenty-meter wide opening for the tunnel, which was pushed in sections over a total length of 35 meters, at a rate of 7 to 8 m/h. The final phase consisted in applying 2,000 m³ of fill on either side of the tunnel, before replacing the ballast and tracks. Rail traffic was able to start running again on Sunday at 10 p.m.
This project, the first of its type, will be a landmark in the history of Colas Suisse. Thanks to the complementary nature of its activities, the Swiss subsidiary was able to bid for a contract up for grabs in French-speaking Switzerland, combining road works and signaling. Contracted by the Swiss Federal Roads Office (Ofrou), Piasio, Colas Geneva, Colas Jura, Colas Mittelland and Pittet-Chatelan carried out resurfacing work on a section of Highway A1 between Bardonnex on the border and the Vengeron interchange. Colas Suisse employees worked on this somewhat atypical project for sixty nights, between July and September last year: milling work on the existing surface followed by the laying of a waterproofing membrane designed to delay the onset of cracks, the application of mixes manufactured by Tecvia (Colas Suisse) and temporary markings. Permanent road markings completed the work.

Libreville airport: fast-track renovation
Back in August, Colas Gabon carried out renovation work at Libreville airport. The work on the main runway, completed over nine nights in 65-meter sections, was delivered a day ahead of schedule.
Colas in Hungary

After several years of recession, the Hungarian construction sector is taking off again, with a sharp increase in infrastructure projects. Reputed for their technical expertise and reliability, Colas’ teams in Hungary have been juggling a variety of projects, big and small: highways and roads, urban development, road works and main networks, etc. We present a panorama of projects either delivered or under way.
In October 2014, Colas Hungária delivered a 4-lane 12-km section of Motorway M3, close to the Ukrainian border.
It’s December 1, 2014, the day the building at 73 Bocskai in Southern Budapest becomes the new head office of Colas Hungária, Colas Alterra and Colas Út, three of the four Colas subsidiaries in Hungary (read p.26). Having operated in the country for more than twenty years now, the Group is a major player, both in the production of construction materials and as a builder of infrastructures (new-build and maintenance operations). It has led major highway projects as well as development projects on a much smaller scale. Its references include the M6-M60 project, the biggest ever undertaken by Colas. This PPP contract, secured as part of a consortium in 2007 and delivered in 2010, involved the construction of two sections of highway – 78 km in total – between Szekszárd and Pécs, including some one hundred or so major engineering structures. “We’ve built a reputation as a company capable of delivering technically complex projects within tight deadlines”, underlines István Sokorai, CEO of Colas Hungária.

The sector recovers

“The construction sector in Hungary began to experience a decline in activity at the start of 2007”, recalls István Sokorai. “This was exacerbated by the global economic crisis in 2008. In the space of just five years, turnover in the sector plummeted by 45% and 85,000 jobs were lost. The first signs of a recovery emerged in 2013, and were confirmed the following year.” And, as Thierry Le Roch’, Deputy Managing Director, Central Europe adds: “Colas has consolidated its positions in Central Europe, with
its contrasting markets, and significantly increased its work-on-hand via a strategy of careful project selection. Revenue has stabilized following several years of consecutive falls. In Hungary, business has been buoyed by a resurgent roads sector, with a number of highway construction contracts secured."

**Major projects and the “core business”**

Motorways M0, M3, M4, M85 and M86 … Located in the heart of Central Europe, Hungary is crisscrossed by several highway corridors. The country has seen a substantial increase in the volume of road traffic, particularly heavy trucks, and in order to provide the appropriate road infrastructure to accommodate the increase, a large-scale development program subsidized by the European Union was launched in 2013. And Colas’ subsidiaries are playing their part, having secured several highway construction contracts. At the same time, teams are involved in a variety of other construction projects.

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**SZAMOS-KRASZNA DAM**

Colas Hungária built flood retention reservoirs to slow down the water flow of the Szamos and Kraszna rivers during periods of flood.

**MISKOLC TAPS INTO BIOGAS**

The city of Miskolc has a new biogas plant that uses sewage sludge from the district’s water treatment plants. Colas Alterra was responsible for constructing the two digestion towers, 18 m in diameter and 16 m high. These are tanks that produce biogas via an organic matter fermentation process. Each tower required 650 m³ of concrete. Delivered in September 2014, the plant has been up and running since December 2014.
FIVE HIGHWAY PROJECTS

Since 2013, Colas’ Hungarian subsidiaries have worked on numerous sections of highway, representing a total of €250 million:

**MOTORWAY M3**
- **Subsidiary:** Colas Hungária (as part of a consortium)
- **Amount (Colas share):** €17 million
- **Works:** construction of a 4-lane section (12 km) between route 49 and Vásárosnamény. The work involved the relocation of an 800-mm diameter pipeline.
- **Delivery:** October 2014

**MOTORWAY M4**
- **Subsidiary:** Colas Hungária (consortium leader)
- **Amount (Colas share):** €78 million
- **Works:** construction of a 4-lane 13.4-km section between Abony and Fegyvernek as well as a breakdown lane, two interchanges, thirteen crossings and two rest areas
- **Delivery:** September 2016

**MOTORWAY M30**
- **Subsidiary:** Colas Út (as part of a consortium)
- **Amount (Colas share):** €19 million
- **Works:** construction of a 2-lane and 4-lane 5.8-km section
- **Delivery:** early 2015

**MOTORWAY M35**
- **Subsidiaries:** Colas Hungária, Colas Út
- **Amount (Colas share):** €91 million
- **Works:** construction of two 4-lane sections: the first a 6.8-km section between Győr and Enese, including the construction of four engineering structures, 900,000 m³ of earthworks, the application of 72,000 tons of asphalt mixes and the installation of 31 km of safety barriers. The second 7-km section between Enese and Csorna also includes the construction of five civil engineering structures and the diversion of several service networks. It should be noted that since the site lies within a Natura 2000 zone*, subsidiaries have to comply with strict European directives relating to protected species.
- **Delivery:** scheduled for mid-2015

**MOTORWAY M85**
- **Subsidiaries:** Colas Hungária, Colas Út
- **Amount (Colas share):** €91 million
- **Works:** construction of a 4-lane 75-km section between Széleste and Hegyfalu. An archeological site is present.
- **Delivery:** scheduled for the end of 2015

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*A The Natura 2000 network was set up to offer vital protection for rare and endangered animal and plant species, and their habitats.
Projects across the country – water treatment plants, industrial platforms, amenity developments and roads and services. At the beginning of 2015, for example, they delivered the completed Budapest tramway project involving the renovation and extension of line 1. “Our organizational structure means we have the capacity to juggle numerous projects and pursue our ‘core business’ activity”, continues István Sokorai. The Group’s strengths lie in the quality of its finished work and the considerable technical, technological and equipment resources at its disposal. It boasts eight asphalt plants, distributed across the country, many of which have been progressively equipped with technology for the production of foam bitumen. The advantages?

Mixes produced at lower temperatures and that can be transported over longer distances. “2014 was an outstanding year for our business. We now turn our attention to 2015, when we will be delivering these major projects and attempting to secure some new contracts. Our biggest challenge is to develop the private sector and establish long-term partnerships with these new customers”, concludes István Sokorai.

> SPOTLIGHT ON COLAS IN HUNGARY

### 4 SUBSIDIARIES

**COLAS HUNGÁRIA**

*(parent company)*

Note: the Major Projects division, attached to Colas Hungária, manages highway and civil engineering projects.

**COLAS ÚT**

Colas Hungária’s main subsidiary, is a major player in the Hungarian construction market. Teams carry out road works and urban development projects throughout the country. Colas Út boasts eight asphalt plants, which together account for one quarter of the country’s total annual asphalt mix production.

**COLAS ALTERRA**

Its activities are focused on the installation of pipeline networks for rainwater and wastewater, water and gas as well as the construction of water treatment plants. In 2010, the subsidiary delivered its biggest project to date: Budapest’s waste water treatment plant.

**COLAS ÉSZAKKÖ**

Was the first company acquired by Colas in Hungary, back in 1991. With 11 quarries and one gravel pit, located in the northeast of the country, this subsidiary has a 30% share of the Hungarian aggregates market. Note: its quarries often play host to protected species; the Eagle Owl nests in the Tályla quarry, for example.
BUDAPEST TRAMWAY
Colas Alterra and Colas Út carried out work to renovate and extend line 1 of the Budapest tramway between mid-2013 and early 2015.
A few years ago, Colas Madagascar delivered the Fort-Dauphin and Toamasina mining projects, unchartered territory for the subsidiary at the time. Since then, it has developed a service-oriented business aimed specifically at mining and oil-sector customers: industrial maintenance. Report below.

Industrial maintenance at mining sites

Colas, which has operated in Madagascar for more than a half a century, is a major construction player on this Indian Ocean island lying 400 km off the African coast. In particular, the Madagascan subsidiary supports the sharp increase in private investments in the field of mining and oil exploration. Following the construction of two exceptional mining sites, Rio Tinto’s QMM project and the Sherritt project in Ambatovy, Colas Madagascar has developed a thriving industrial maintenance business in recent years.

It was back in 2007 that work began in Madagascar to construct one of the biggest nickel and cobalt production complexes in the world. The subsidiary was responsible for developing the extraction site for the Ambatovy project (access roads and earthworks at the mining operations sites) in Moramanga, 100 km east of Antananarivo, as well as construction work on the transformation plant in the port city of Toamasina (roads, buildings, bridge, port development, etc.). "Colas Madagascar was one of the very first partners of this exceptional three-year project, working on the mining site itself as well as the 220 km of pipelines, the plant and associated facilities", explains Jean-Baptiste Guénet, head of Colas Madagascar. Since the Ambatovy site was brought on board, the partnership between Colas and its customer Sherritt has continued to make headway, thanks, in particular, to industrial maintenance. *The idea of*
SCAFFOLDING AND INSULATION

At the Toamasina plant, the insulation of this 800-ton autoclave, which operates at a temperature of 220 degrees, requires specific expertise.
At Toamasina, maintenance also incorporates Colas Madagascar’s traditional businesses. Here, civil engineering teams are carrying out work on the foundations of a nitrogen production unit.
developing this side of the business came about as a natural extension to the work already carried out. We were still working on another part of the site when the plant itself was in the process of being brought into service. It was then that the daily maintenance needs became apparent, an area in which Colas has extensive expertise. The transformation plant is made up of numerous treatment units and an extensive network – 200 km – of pipes. With the facility operating around the clock, 7 days a week, the need for a permanent maintenance service was clear. "We started out by offering scaffolding hire and assembly services, since the equipment had already been used during the construction phase. The idea for industrial maintenance came from there", continues Jean-Baptiste Guénet.

### Five new business lines

Once it arrives at the transformation plant, after a journey of several hours through more than 200 km of pipeline across the Madagascan countryside, the ore goes through a multi-phase treatment process to obtain refined nickel or cobalt. Once again, this involves transiting hundreds of kilometers of pipeline on the site itself. Tens of thousands of bends, valves and welds… and a corresponding number of potential leaks, worn joints and metals and clogged up tanks. Every day, Colas Madagascar employees replace dozens of connecting pipes, essential for the smooth operation of the plant. Cleaning with high-pressure jets, repairing leaks, soldering operations, etc. (read p.33), Colas Madagascar’s maintenance teams carry out a range of tasks, divided into five categories. Lagging experts, for example, are responsible for maintaining and changing insulating materials and metal coverings protecting the pipework from the extreme weather conditions that sometimes strike the island. "Acids, gases, high temperatures and high pressures, the chemistry taking place in the pipes is particularly aggressive", explains Philippe Ballet, maintenance manager. "Deposits can form in the pipelines and cause obstructions." When that happens, hydroblasting (cleaning using high-pressure water jets, up to 3,000 bars) specialists are brought in. They work day and night in often challenging conditions, such as confined spaces, for example. Teams are sometimes required to work dozens of meters above the ground. "We sometimes have to erect complex scaffolding structures in a very short space of time: towers, stand-alone or suspended scaffolding… A specific field of expertise requiring specific skills", underlines Cédric Le Penven, Principal Scaffolding Supervisor, Colas Madagascar.

### Safety challenge

The maintenance department at Ambatovy employs some 250 people. "Developing this department was a big investment, because we actually had to create no fewer than five highly technical specialist areas that were completely new to Madagascar. New activities, chemical hazards and work at height…we had to adapt the way we worked: Specific training courses were set up for personnel and the subsidiary.

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**PHILIPPE BALLET, Maintenance Manager**

A man who likes a challenge

Philippe Ballet spent nearly twenty years crisscrossing the globe from Asia to South America and Africa, as a specialist in the restoration of metal civil engineering structures. In 2005, he finally decided to settle on the Indian Ocean island of Madagascar. Three years later, he joined Colas Madagascar as Ambatovy site supervisor for the construction phase. Philippe is now maintenance manager and has contributed as much as anyone to this extraordinary industrial maintenance adventure at Colas Madagascar. "We created this department from scratch. But with the right people and sheer determination, anything is possible. Colas had everything it needed in its armory to succeed: quality, reactivity and, above all, ongoing training programs for local employees." Proud of the work accomplished, he is now looking forward to his next challenge: "And why not develop maintenance services for the trains supplying the Ambatovy site?"
invested in the special equipment required: hydroblasting machines, manufacturing workshops (towers, milling machine, plasma cutting machine, folding machine, etc.). And Colas Madagascar teams also had to contend with another challenge: safety. “We were used to the extremely high safety standards demanded by mining customers throughout the construction phase. Once the plant had been brought into service and the associated risks had increased accordingly, the customer was even more exacting in this area.” A whole set of challenges also arose in terms of managing the maintenance department, particularly with respect to continuous shifts and working alongside the many other companies also present on the site.

Adapting day-to-day

“95% of customer requests relate to unplanned operations”, points out Philippe Ballet. Colas Madagascar teams have a simple watchword: adaptability. Be it contractual, operational or both. “If you’re going to offer maintenance services for a plant of this magnitude, operating 365 days a year, 24 hours a day, you have to be able to respond and intervene under exactly the same conditions. One of the main challenges is this constant requirement to adapt day-to-day to whatever needs come along.”

Every day, at 6 a.m. and 4 p.m., a meeting is held with the customer to distribute tasks to the 250 employees. “The creation of a maintenance department has
led us to remain present on the Ambatovy site beyond the construction phase and maintain a close relationship with the customer, the country’s biggest commercial player. Thanks to this partnership, we have developed new expertise while retaining our core business”, explains Jean-Baptiste Guénet. And, in 2014, the subsidiary was also able to announce it had secured a contract for the construction of a new tank for the Ambatovy plant. Having gone from supplier to close partner, Colas now provides a global service offer in Madagascar. What’s more, the expertise acquired has been exported to other mining sites on the island, such as Fort-Dauphin for Rio Tinto and Tsimiroro for Madagascar Oil. The next step? “To give other Colas entities around the world the chance to benefit from our experience, with a view to extending this new offer to wherever it is required.”

> COLAS MADAGASCAR’S INDUSTRIAL MAINTENANCE OFFER

1. **HYDROBLASTING / HYDRODEMOLITION / SANDBLASTING**
   - cleaning or cutting using high-pressure or ultra-high-pressure (1,500 to 3,000 bars) water, priming of metal surfaces by sandblasting prior to the application of paint.

2. **MECANICS / LEAK-SEALING / HDPE**
   - pipework repairs: welding, assembly and tightening of fittings, pressurized sealing of leaks, repair of HDPE networks.

3. **INSULATION / LAGGING**
   - custom manufacture and assembly of insulating materials on pipework and tanks and application of metal protection.

4. **INDUSTRIAL SCAFFOLDING**
   - scaffolding assembly to provide access to various parts of the system requiring maintenance team intervention.

5. **ELECTRICITY**
   - maintenance of electricity, control, insulation, fire alarm and lighting systems.

Alongside actual industrial maintenance operations, Colas Madagascar teams continue to provide road and civil engineering services (road maintenance, access roads, parking lots, storage platforms, civil engineering works on mining site foundations or port facilities).

**IN BRIEF**

**ROUTES** No. 34 – March 2015
Truck drivers, supervisors, foremen, machine operators… They all do their jobs with enthusiasm and have decided to share their daily routine and projects with us.

David Witt and Matthew Cooper are both from Melbourne, in Australia. It was back in 2005 that David joined Primal Surfacing, the Colas Australia subsidiary specializing in the design and application of spray seals. Matthew joined the same company in 2006. Today they are crew supervisor and crew foreman respectively. In 2014, keen to learn about the techniques used by Colas’ other subsidiaries, they travelled over to the province of Alberta, in Canada, to spend a month and a half working alongside employees of ACP Applied Products. The Colas Canada subsidiary specializes in pavement preservation and geomembrane application. “Australia and Canada are very similar in that they are both vast countries served by extensive road networks. Spray sealing is perfect for road maintenance purposes across these networks. But we employ different methods”, explains Matthew. “This sharing of good practices with our colleagues in Alberta opens up new opportunities for the roads sector in both Canada and Australia”, concludes David.
The satisfaction of a job well done

GEORGES LACIDES
LABORATORY MANAGER
SOGETRA
GUADELOUPE

Born in Guadeloupe, Georges Lacides opted to complete his studies in mainland France before returning to his native island armed with a vocational training certificate in construction. In January 1995, he joined Colas Guadeloupe (now Sogetra) as a lab assistant. “I’d always seen myself working as a site supervisor in the building business, and there I was having landed a job in the lab of a road construction company”, recalls Georges. “I saw it as a great adventure and I’ve never looked back.” Georges has gradually climbed the ladder, demonstrating all the professionalism, rigor and discretion so essential in the business, to reach the position of lab manager today. His job is to work with his team to perform upstream tests on the materials destined for use in the manufacture of asphalt mixes, emulsions and finished products. He is also responsible for carrying out mix design research for the Caribbean-French Guiana zone. And Georges has no intention of staying cooped up in his lab! He is also technical manager in the Transbéton subsidiary and is developing a new technical support activity for his Sogetra colleagues and customers.
On the eve of his retirement, Gérard Besse has no regrets as he looks back over a career spanning forty-four and a half years with Colas. "I've been lucky enough to work in a job I love." He got his first job in a construction company at the age of just 16 (the company would become Colas Sud-Ouest's Rodez profit center)... and never left! "I started out as a worker. The work was very physical because the equipment we used on sites at the time was pretty basic compared to today." Armed with a trucker's license obtained during his military service, Gérard went on to become a truck driver transporting asphalt mixes. Then, in 1976, an opportunity came up for a job as a grader operator. "I'd spent several years behind the machine and I was keen to get my hands on the controls", he recalls. It was a revelation. "When you're at the wheel of a grader you just need to turn around to admire the work accomplished. It's extremely rewarding." In 1995, he joined the Losange d'Or Skilled Workers Guild. "I'm proud of what I've achieved over the years. I've trained the next generation of workers and now I can retire happy."
What I love best is the team spirit.

GISELE TROMBERT
TRUCK DRIVER
COLAS RHONE-ALPES AUVERGNE
FRANCE

There was nothing to suggest Gisèle Trombert would ever become a truck driver. Her first job was working in the family restaurant in Thonon-les-Bains, France. She then headed off to Switzerland, where she spent ten years working in a disco, before returning to take over the restaurant from her parents, who were retiring. At the same time, Gisèle did all the accounting and paperwork for her husband’s road haulage company. One day, her husband found himself a driver short. So Gisèle decided to pass her trucker’s license. When the company ceased trading a few years later, she joined Colas Rhône-Alpes Auvergne as a heavy truck driver. Since then, every morning, she has joined her fellow drivers at the Perrignier storage plant (Haute-Savoie) to get her instructions for the day, load up her truck and head out to a jobsite. “The thing I love most about this job is the team spirit. Everyone mixes, the young, the not so young, the people from elsewhere who give us an insight into different cultures.” When she hits the road, she reflects with pride on the fact that, at the wheel of her truck, she was one of the people who helped build it.
Screen printing, sticking on letters one by one, concentrating, adding the finishing touches, checking. Then doing it all again. It was more than thirty years ago, but Valérie Proust still clearly recalls starting out at SES Nouvelle (Aximum). After graduating from high school, she went to work at the Chambourg-sur-Indre plant, in the Indre-et-Loire area of central France. At this site specializing in the manufacture of road signs, she discovered the world of sheet metal decorating and crimping. “You need to have a certain knack and a keen eye. You need to be attentive, rigorous and meticulous.” In the past, armed with a roller and adhesive tape, she would cut the letters out and stick them on to a panel by hand. In recent years, much to Valérie’s delight, the task has been taken over by machines. Through hard work and a little help from her colleagues, Valérie has increased her skills and progressed up through the ranks over time. In 2012, she became team leader. She is now responsible for distributing orders for signs between each workstation. In 2014, she was appointed a member of Colas’ Skilled Workers Guild in recognition of her professionalism, commitment to the company and exemplarity.
Being useful and **effective within the company**

**STEVE PECK**
**REGIONAL MANAGER**
**SIMON CONTRACTORS**
**USA**

Steve Peck was born and raised in North Platte, Nebraska, and he still lives there today. In 1979, at the age of just 14, he started working for James E. Simon, the founder of Simon Contractors, as a salesman and pump attendant. Steve gradually worked his way up through the company, employed successively as a truck driver, laborer, asphalt superintendent, foreman, etc. Today, he is regional manager. “Be it for safety, training or management, it doesn’t matter… I’ve always tried to be as effective and useful as possible, for customers and employees alike”, he explains. Although Steve’s life has long since revolved around Simon Contractors and road construction, he is also a true nature lover: whenever he gets the chance he heads out to the open plains of Nebraska and Wyoming for some hunting, fishing and camping, in the true spirit of the pioneers of the West! Enthusiasm he loves to share with the children, senior citizens and disabled people he invites to his riverside property so that they too can experience the joys of fishing and hunting. ■
A passion for the product

JEAN-YVES ROLAND
MACHINIST
COLAS MIDI-MEDITERRANEE
FRANCE

The first few years aside, one product has dominated Jean-Yves Roland's career to date: concrete. After two years as an apprentice joiner, he landed a temporary job with Colombero, a company specializing in the manufacture of pre-fabricated composite concrete panels. He went on to work as a bricklayer and concrete worker at the plant, earning him the official status of highly skilled worker. In 1993, Perasso, a subsidiary of Colas Midi-Méditerranée, took over Colombero. Jean-Yves then spent five years as a machine operator in the Perasso quarries in Marseille. In 2004, he joined the Manosque pre-fabrication plant as a machinist and concrete finisher, a post he still occupies today. “Even after all these years, I still love this job as much as I always did. I'm proud to work with concrete. It's the quintessential contemporary material and I'm the guarantor of its quality”, he explains. Jean-Yves is also delighted with his working conditions: “They have improved a great deal over the years, particularly in terms of accident prevention.”
I’m a bit like an orchestra conductor

SUHANDI
DEPOT COORDINATOR
ABS
INDONESIA

To coordinate: to combine separate actions and activities with a view to forming a coherent whole.

This is the mission that Sulistyanti has made her own at the Ciwandan bitumen depot, west of Jakarta. It’s her job to make sure each operation runs smoothly, from storage of raw materials through to loading up of trucks, via the checking of the bitumen’s temperature. This 41 year-old qualified accountant has always worked in Ciwandan for ABS, a producer and supplier of bitumen. Having started out as finance and accounting, “Sulis” was appointed bitumen depot coordinator in 2002. “The site has three tanks, representing a total storage capacity of 9,000 tons, a PMB (polymer modified bitumen) plant and an emulsion plant. Between coordinating the 35 employees on-site and the nonstop coming and going of trucks, the activity is constant. I know I can rely on the expertise of the teams around me to keep up the pace.”
In 2000, after thirteen years working in the hospital sector as a medical secretary, Sophie Bignault took an accountancy course and secured a temporary position at Colas’ Campus for Science and Techniques (CST). The experience proved pivotal since she was offered a permanent contract as an administrative assistant with Ecoliant, a subsidiary of Colas SA. “Although I knew nothing at all about the construction business, I seized the opportunity and have never regretted my change of career.” In 2009, she obtained her administrative assistant vocational training certificate via the French work experience accreditation program*. She was then given the task of setting up a human resources structure at the CST. Unfamiliar territory once again for Sophie, who, thanks to the support of her colleagues and hard work, soon made the new role her own. “I was lucky enough to have Colas believe in me and allow me to progress beyond my initial training. The rest followed with my desire to learn and work differently.” As head of the Administrative Department and member of the CST management committee, her missions are divided between human resources, legal and insurance issues, general services, etc. Her motto? “Anything but routine!”

*Sophie Bignault
Administrative Department Head
Campus for Science and Techniques
France

“...I was lucky enough to have Colas believe in me...”
Having the opportunity to reinvent yourself

Philippe Tausend or how to succeed in professional retraining. Such could be the title of the story of this man who, against all expectations, became a site foreman. "I started out as a baker in Troyes", explains Philippe. "But the job was not compatible with being in a relationship – especially a long-distance one – and so I decided to leave and join my girlfriend, who lived in Romilly-sur-Seine." That was in 1998. He then contacted a temporary employment agency to try and find work. In 1999, he joined Colas Est’s Romilly-sur-Seine profit center as a builder. He rose up through the ranks to become site foreman. "I’ve been lucky because I’ve had access to training throughout every stage of my career." Today he supervises a team of five to eight people responsible for carrying out drainage operations and earthworks. Although he no longer has time for any baking, Philippe has no regrets. "If I had to do it all again, I wouldn’t change a thing. I love life out on the sites and I enjoy managing teams. No two days are ever the same, and the unexpected often happens!" And, he concludes, "I’m the living proof that if you’re determined enough you can always reinvent yourself!"
HAUTS-DE-FRANCE II
Pipeline installation between Nédon and Corbie in northern France for the GRTgaz Hauts-de-France II gas corridor project.
Spac: a new strategy

In 2014, Spac, the Colas subsidiary specializing in the construction and maintenance of fluid transport and distribution networks, launched a strategic reflection process with a view to adapting to challenging market conditions and better meeting evolving customer needs. Objectives: to seize new business opportunities and reinforce the company’s commercial dimension.

On November 26, 2014, 200 Spac managers from across France came together for their first conference since 2008 to discuss the new corporate project: “Desired future.” Participants shared views and listened to ideas as they celebrated a return to profitability and saluted the progress made by the company over the past three years. They also discussed how to construct the Spac of the future. “We have spent a year conducting a reflection exercise with the company’s managers to design an appropriate strategy for Spac to take forward to meet the needs of today and the future”, recounts Benoît Chauvin, Spac’s CEO. Reflection based on an analysis of the economic context, the company’s strengths and weaknesses and the development opportunities.

A challenging context

Spac is recognized for its expertise in the construction and maintenance of fluid distribution infrastructures (oil, gas, water). It has similar expertise in the field of electricity transport. The company bids for a wide range of contracts in both the private and public sectors. In France, 30% of Spac’s business is generated from the public sector, while the private sector accounts for the remaining 70%. “The public sector is extremely uncertain at the moment due to budget cuts, certain projects being delayed or even abandoned, >

> SPAC’S NEW ORGANIZATIONAL STRUCTURE: THREE BUSINESS DIVISIONS

1. ENERGY TRANSPORT
   • Pipelines France
   • Industrial Projects France
   • Export
   • Major Projects

2. ENERGY DISTRIBUTION
   • Gas-Electricity Distribution
   • High-voltage Networks
   • Thermal
   • Metal

3. WATER / CIVIL ENGINEERING / MARITIME WORKS
elections and a degree of inertia generated by territorial reform”, explains Benoît Chauvin. “In the private sector, the context appears to be more favorable, despite falling investments and more aggressive competition from foreign players.” Around the world, energy infrastructure and transport needs are increasing in developing countries as well as in some European countries.

New markets for the future

So what is the outlook for the company? As Benoît Chauvin puts it, “the French domestic market presents a number of opportunities calling out for Spac's expertise: new customers, new territories, new offers. The crisis is generating an economic transformation. Hence the need for Spac to adapt to the new context and seize opportunities associated with the energy transition and the development of renewable energies (biomass, geothermal energy, onshore wind energy, etc.).” While a quarter of renewable energies will transit the networks, the network architecture is set to evolve to meet new distribution and storage methods. In addition, European regulations stipulate a four-fold cut in greenhouse gas emissions. Other potential opportunities: the nuclear sector with the launch of post-Fukushima calls for bids, or regional development programs such as the “Grand Paris” (Greater Paris) initiative. Finally, the ageing water distribution network will generate needs in terms of infrastructure modernization.

Export development

The company is also studying development opportunities elsewhere in the world, particularly in Africa. In 2014, for example, Spac provided technical expertise to Colas Gabon as it carried out its first ever pipeline installation project on behalf of Total Gabon. The 17 km-long infrastructure now supplies the new power plant in Port-Gentil, the country's economic capital. For this project, Colas Gabon benefitted from Spac's customer knowledge as well as its expertise in the field of pipeline installation. “As a result of this contract, Spac now has an active presence in Gabon”, continues Benoît Chauvin. “The idea is to draw on the support of Colas' local entities — in Africa, for example — >
The re-routing of a water supply pipe in Chevilly-Larue, for the T7 tramway extension project between Villejuif and Athis-Mons, south of Paris.
to develop our export market. West Africa is seeing growth of between 5 and 6%, so the opportunities are there for the taking. There are opportunities in Europe too, especially Central Europe, where numerous potential pipeline projects are on the table. The company will also be targeting potential oil and mining companies as another avenue for development.

As far as Benoît Chauvin is concerned, Spac’s avenues for improvement are clear: “Operationally speaking, we are excellent. But we need to establish a more structured commercial strategy, be more proactive in responding to calls for bids and better anticipate customer needs. We also need to promote cross-functionality between profit centers, share expertise and exploit the benefits of our local presence. And, of course, innovate more. Agility is essential in markets lacking visibility.”

New business organization

At the start of January, Spac’s new organizational structure came into force, hinged around three business divisions: Energy Transport, Energy Distribution and Water/Civil Engineering/Maritime Works. The imperative? To retain the specific characteristics of each business and the advantages of a local presence. In addition to these business divisions, the priority is to establish a structured commercial...
strategy, with the creation of a dedicated unit for each division, and to acquire new expertise, such as the business development representative. “The rep provides the link between the customer and the company”, explains Benoît Chauvin. “He is the one who gathers information and passes it on to the highest levels of the company. He is the one who canvases in order to build and lead the development strategy, who has to understand market constraints, keep a finger on the pulse in terms of support function and customer needs, anticipate their requirements, etc.” So what are the qualities required of a rep? “They have to be inquisitive, know how to innovate, federate the company’s strengths with a view to putting forward a new offer.” Technical innovation and the pooling of resources and expertise will also be developed to support the new organizational structure.

The aim is to turn Spac into a “company that is more adapted, a learning organization that is more attentive to markets, customers and employees”, concludes Benoît Chauvin.

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**FOCUS ON**

1. **OBJECTIVES**
   - €300 million revenue within 5 years, doubling of profits

2. **PRINCIPLES**
   - To create and anticipate the market opportunities of the future
   - To steer and strengthen the company vis-à-vis commercial acumen and innovation

3. **AVENUES**
   - Focus: local strength
   - Strategic: reinforce the customer dimension and commercial dynamic (dedicated and sophisticated structure)
   - Behavior: confidence, autonomy, boldness

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*The “Desire Future” 2020 Project*

Installation of ultra-high-voltage cables for the France-Spain electricity interconnection.
In 2013, Hervé Le Bouc, Colas’ CEO, decided to reinforce innovation initiatives relating to products, processes and customer solutions. In 2014, the Group set about establishing a formal structure for the program, with the creation of a governance body, the Colas Innovation Board (CIB). A map of the Group’s innovation projects was drawn up and, in September, an ideas’ competition was launched on the theme of “Digital transformation.” In total, 370 proposals were sent in from subsidiaries in France and around the world, four of which were singled out for awards at the start of 2015: the Colas Gold award went to Marc Maranzana (Colas Suisse) for his “digital jobsite”, the Colas Silver award was presented to Jérôme Lagabe (Colas Est), Eric Gervais (Colas Rhône-Alpes Auvergne), Vincent Durand and Pascal Tebibel (Colas SA) for “COLNECT” (E-jobsite), and the Colas Bronze award was scooped by Humbert Duchon, Serge Houbre and Franck Rosquin (Colas Est) for “Pimp my Park” as well as Romain Wirth (Colas Centre-Ouest) for the “Works opportunities survey application”.

In parallel, the CIB has decided to focus on six themes: “The Cost-wise road”, offering economical solutions adapted to the service level required by the customer; “The solar road” (read article p.51); “Big data and roads” (creation of new products and services thanks to data supplied by sensors incorporated into the pavement); “Global offers” incorporating new proposals in the customer’s value chain; “e-business” (the use of new technologies to develop business and create value); and “green chemistry” (the implementation of disruptive technologies in the fields of resins, road binders, emulsifiers and elastomers, drawing on bio-based chemistry and recycling). These six themes were presented at the “Colas for the Future” forum organized as part of the February 2015 international meeting.
Colas’ Campus for Science and Techniques (CST) joined forces with the Liten and the CEA to develop a first solar road demonstrator.

Cars and bicycles could soon be using... solar-powered roads! The idea is “simple”: to install solar sensors in the pavement capable of powering illuminated traffic signs and street lighting. They could even recharge electric vehicle batteries by induction. Several years ago, Colas’ Campus for Science and Techniques (CST) launched a research project on the theme of the solar road, having teamed up with the Laboratory for Innovation in New Energy Technologies and Nanomaterials (Liten) as part of a partnership with the French Atomic Energy and Alternative Energies Commission (CEA). In 2014, the research teams developed a functional demonstrator capable of withstanding traffic movements and ensuring the required level of pavement skid resistance while allowing light to reach the photovoltaic cells. This cutting-edge technology will be rolled out across pilot sites during 2015.
Made in France and currently in use in the UK, a new modular lane divider, the SMS+, has been developed by Aximum and Colas Ltd., a Group subsidiary in the United Kingdom. The result of a joint project between Aximum and Colas Ltd, a Group subsidiary in the United Kingdom, the SMS+ is an innovative modular lane divider. Designed to improve safety on road and highway jobsites, it can be adapted to fit with each particular work zone layout. It consists of 6 meter-long steel modules that can be slotted together, bolted or anchored, depending on what's required (containment level, operating width). Numerous tests have been conducted to confirm the degree of protection offered to teams working on sites as well as drivers if a vehicle leaves the road. Carrying the CE mark and available in the United Kingdom since last June, the SMS+ can be used on roads in any country, including those where European standards apply. Made in France, the SMS+ is delivered to the UK as a semi-finished product to be assembled by the user, the aim being to optimize transport costs. Twenty kilometers of these safety barriers have already been used on British soil. A fine example of inter-subsidiary teamwork!
Ten Colas subsidiaries have each signed an agreement with Agefiph, the French fund for disabled employment. To mark the signature, each company organized an event involving regional delegations from the association as well as local players committed to helping disabled people secure employment.

To continue the initiatives launched by the Group back in 2011*, ten Colas subsidiaries have opted to reinforce their commitment to helping disabled people in the workplace via the introduction of personalized agreements signed with the Agefiph (the French fund management organization for the professional integration of people with disabilities). These individual agreements, specifically tailored to the needs of each company, are defined around six themes: awareness and training, communication, recruitment and integration, career support and development, staying in employment and collaboration with the protected sector. The subsidiaries have also expressed their determination to actually get out into the field, prioritizing workers to begin with. Toolbox disability talks will be organized to explain to employees exactly what disability is all about and remind them about the objectives of the agreement. Prevention committees have been set up in the subsidiaries and their role will be to anticipate as quickly as possible what measures are needed to keep people facing disability in a job (training, internal and external transfers, etc.).

Disability: Colas reinforces its commitment

* In 2011 in France, Colas signed a two-year partnership agreement with the Agefiph and launched a set of initiatives concerning communication, integration, keeping people in employment, etc.
Colas, in a partnership with OPPBTP, has built a new chemical assessment tool.

Chemical hazards concern human health and the environment. From windshield wash to solvents, oils and fuels, on average, each Group site uses between 120 and 130 chemical products for the purposes of its activities (workshops, jobsites, laboratories, plants, quarries, vehicles, machines, etc.) “Chemical hazards are present across all our sites”, explains Philippe Simarik, Colas’ Occupational Prevention, Health and Work Environment Manager. “Chemical hazard assessment is a regulatory requirement. The purpose of the process is to identify chemical products and their associated hazards, eliminate dangerous products and implement appropriate preventive measures.” Back in 2007, Colas began using a software known as LARA-BTP, created and rolled out by the OPPBTP (see box p.55), the French Occupational and Safety Administration for the Building and Public Works Sector. “But three years ago, at a meeting with the OPPBTP, we discussed the need to enhance the tool since it was really more suited to small and medium-sized companies”, continues Philippe Simarik. “What’s more, regulatory changes have also been introduced relating to chemical product labeling.” A steering committee made up of representatives from the OPPBTP and Colas was set up to design and develop a new assessment tool.

100% web-based tool
The idea was to develop a tool that could be accessed by everyone via the internet. Entirely
dedicated to the construction sector, free and available in French on the OPPBTP website (www.preventionbtp.fr), the software will be translated so that it can be used in other countries around the world. The design of the tool is simple, taking users through a four-step process (see box opposite) to carry out a chemical hazard assessment. Support is provided throughout the process, with OPPBTP prevention advisors on hand to guide the user and respond to any queries. This tool gives sites access to safety datasheets for each product. In addition, labels can be printed directly via the tool; in the event of product transfer or the creation of a new chemical product.

So what are the benefits of this software for the Group? “Intuitive, it provides rapid access to a Group chemical database, with the new regulatory labeling”, stresses Philippe Simarik. “It helps us manage the substitution of dangerous products within the context of prevention plans. It provides the foundations for a tool that will be monitored and updated to ensure its long-term relevance.” Tested over a period of three months in three subsidiaries (Colas Centre-Ouest, Colas Ile-de-France Normandie and Colas Nord-Picardie), the software was rolled out across all French subsidiaries at the end of March. 

> THE OPPBTP

The French Occupational and Safety Administration for the Building and Public Works Sector (OPPBTP) was set up to help promote workplace accident and occupational disease prevention and improve working conditions in the construction and public works sector. Every year, it supports companies in a number of ways:

• 7,300 consultancy initiatives benefiting 7,000 companies, relating to more than 6,000 jobsites;
• the training of 21,500 construction sector workers;
• practical and illustrated information initiatives.

For more information, visit www.preventionbtp.fr or www.oppbtp.fr

> THE FOUR MAJOR STEPS IN THE CHEMICAL HAZARD ASSESSMENT PROCESS

1 Identify and record hazardous chemicals
2 Assess and prioritize risks
3 Eliminate hazardous products or implement prevention measures
4 Ensure monitoring and traceability

GUILLAUME BRODIN, QSE officer (Colas Centre-Ouest/CMGO)

“A practical tool accessible to all”

“Chemical hazards concern everyone: the workshop manager, site manager, etc. Very easy to use, this new software is accessible to all. The creation of a Group database will further simplify the initiative. After testing it for three months, we’ve already learned some important lessons. We’ve seen, for example, that for the same task, dozens of different products are used at the various sites. The next step will be to draw up a list of recommended products, bringing in the different departments (QSE, equipment, purchasing) with a view to determining avenues for improvement following the chemical hazard assessment process.”
The Career hub launched by Colas is a new digital recruitment platform designed to be used on smartphones and tablets.

Colas has created an innovative website dedicated to recruitment, the Career hub. This new-style portal brings together messages that are useful for applicants, taken from information published on the Group’s various websites and social media networks. Interactive widgets give users access to social feeds, a diary, videos, slideshows, new job vacancies, latest news, etc. Primarily designed for mobile phones and tablets, the interface reflects the Group’s desire to allow applicants make full use of the specific features of mobile phones throughout the job application process. For Cédric Mendès, Colas’ Head of Recruitment and School Relations, “The introduction of a one-stop online recruitment communication tool is as beneficial to us as it is for applicants. The Career hub gives us the opportunity to enrich our online pool of content and features and develop an innovative employer brand, supporting Colas’ strategy when it comes to identifying and recruiting applicants. As for potential applicants, they now know exactly where they need to go to begin learning about the Group!”

Go to www.hubcarrierecolas.fr
Colas turns to social networking

Tweet, like, post… Frequently used by social networking enthusiasts, these 2.0 terms now form part of the Group’s vocabulary. Back in September, Colas launched its official Facebook, Twitter and YouTube pages. These web platforms are based on interfaces and tools that make it possible to communicate content, with the emphasis very much on discussion and interaction with the community. “Colas already had a presence on the social networks through web users, be they employees, customers or anonymous individuals”, explains Rémi Colin, Colas’ Head of Media Relations. “We decided it was time for us to start communicating via these new media.” The objectives were to raise the web profile of the Group and its subsidiaries, to inform users about the Group’s businesses and expertise and to promote jobsites, finished projects and innovations, as well as Colas’ commitment to community initiatives. Go to the Twitter thread (twitter.com/GroupeColas), the Facebook page (www.facebook.com/GroupeColas), YouTube and the Colas blog www.blog-groupecolas.com.
Award ceremonies, inauguration, exhibition, trade shows...
Some images of the Group’s events in France and around the world.

UPSTREAM OF THE NEW CAUSEWAY
The plant that will manufacture the accropode blocks to be used in the construction of Reunion Island’s new 6.6-km causeway was inaugurated at the port by SCPR (Société de concassage et de préfabrication de la Réunion). A total of 38,500 accropode blocks will emerge from the production site between now and 2018.
COLAS RAIL PROMOTES STREET ART!

In 2014, 32 recently recruited managers at Colas Rail tried their hand at street art as part of their integration day. Working on one of the subsidiary’s shuttle wagons, they were supervised by two artists. The aim of the exercise was to underline the importance of team work at the company.

ARTS ET METIERS ENGINEERING SCHOOL EVENT

Laurent Carraro, President of Arts et Métiers ParisTech, and Philippe Tournier, Group Human Resources Manager at Colas, have signed a two-year partnership agreement. To mark the event, a one-off exhibition of new works in the Colas Foundation collection was organized within the walls of the Paris engineering school.
2014 FIMBACTE FESTIVAL: FOUR AWARDS
At the construction and environment sector’s Fimbacte Festival, Colas won four gold awards, one for its Career hub (digital communication), one for its Global Safety Attitude campaign and two for its films, “Looking for the giant pangolin” and “Reserved lane public transport systems”.

AND THE WINNERS ARE...
Back in November, the six winners of the Colas corporate film festival, “THE stagiaire”, received their awards at the Golden Roads ceremony held at the Elysées Biarritz. The competition, now in its third year, saw the introduction of a new category aimed at work-study students, the “Alternative view” award.
COLAS ILE-DE-FRANCE NORMANDIE IN THE VANGUARD

At the 2014 PPP (public/private partnership) Rencontres Internationales event, the subsidiary won the award for avant-gardism for the contract signed with the town of Le Plessis-Robinson, in the western suburbs of Paris, in 2011, the first PPP in France combining urban road maintenance, innovation and street lighting. Pictured center: Bernard Sala, CEO Colas IDF, with Serge Kehyayan, Colas IDF's development manager.

FOUNDATION EXHIBITION

The annual fall exhibition of new additions to the Colas Foundation collection was held at the head office, in Boulogne.
Back in November, Hervé Le Bouc hosted the 59 new members of the Colas Skilled Workers Guild at the Boulogne head office. This year, two women were welcomed into the Losange d’Or Guild, joining two female colleagues appointed in 2012 and 2013.

Colas’ Fairtrade/Max Havelaar-labeled workwear has won three more awards: the Janus industry label from the French Design Institute; the Honorary Responsible Communication Award at the 28th Communication & Entreprise Grand Prix ceremony, and a Silver Dolphin Trophy at the Cannes Corporate Media & TV Awards.
At the French Mayors and Local Authorities Exhibition (SMCL), held in November 2014, Colas presented its products and solutions dedicated to road maintenance and preservation, with its four new ranges taking pride of place: Colas Harmony, Colas Premium, Colas Nature, Colas Essential.

ENVIROMENTAL CLEAN-UP
This is the photo that secured Arnaud Borie, project manager at Colas Environnement, second place in the UPDS (the French Union of Site Remediation professionals) photo competition, as announced at the 2014 Pollutec show. On this Colas Environnement jobsite, a professional diver had to go down a clean-up well with zero visibility to dismantle equipment blocking the well.
PRESS REVIEW
Group news extracts that have appeared in the media in France and around the world

OISE: a bypass named desire

This €100 million project was awarded to D3 – société de la déviation de Troissereux, a consortium led by Colas Nord-Picardie – as part of a twenty-five year PPP contract. The 7.2-km four-lane road will link the northern Beauvais ring road to route 901.

NIMES-MONTPELLIER BYPASS: THE MAIN WORKS HAVE BEGUN

The objective of this new 60-km line is to improve high-speed links to the southwest and Spain. Mixed use, it will also be used by freight traffic. Civil engineering work was launched at the end of 2013 and is currently in full swing.

HIGH-SPEED RAIL IN MAYENNE

Colas Rail is supplying the catenary systems for the high-speed rail link. [...] For Colas Rail, the work consists in transporting the girders and posts to the town of Vaiges, erecting the supporting and insulating structures, fixings, the contact wires supplying electricity to the trains and installing them on the high-speed tracks.

ROAD INFRASTRUCTURES: THE NTOUM-KANGO

Colas Gabon has completed work on the road running between the Agoula river bridge and the Koma bridge, in Komo-Kango province, on Route 1.

COLAS LAUNCHES THE ABIDJAN REHABILITATION PROJECT

At the end of September, French construction group Colas began work to redevelop and rehabilitate the boulevard de France and the lagoon boulevard in Abidjan.

RHÔNE-ALPES: THIRTEEN MONTHS TO SECURE THE FOURVIERE TUNNEL

[...] Also on the agenda with this project: resurfacing of the road, which hasn’t been renovated since the structure was brought into service back in 1971. Colas secured the contract for the pavement, Spie has the contract for the equipment and Maia Sonnier is handling the buildings. To ensure minimal disruption to traffic crossing Lyon, most of the work will be conducted at night.
Responsible workwear

[...] A uniform is far more than simply an image vector. It's a working tool adapted to the standards and specific nature of each business. To meet the needs of its 30,000 employees working on jobsites across France, Belgium and Switzerland, Colas has designed a new line of work clothes. “This project illustrates the Group’s values of safety, well-being at work, respect for the environment and solidarity”, underlines Hugues Decoudun, Colas' Occupational Prevention, Health and Work Environment Manager. The new collection fits squarely with the company’s responsible purchasing policy. The garments are made using fairtrade organic cotton from Mali and 50% recycled polyester. The weavers and clothes makers were selected via an audit process. The work clothes, developed to meet the criteria of comfort, resistance, ease of cleaning and protection against the elements, are labeled Fairtrade-Max Havelaar.

EXOSKELETONS HIT THE ROAD

In Geneva, Colas Suisse is testing a “collaborative robot” on a jobsite. [...] The battery-operated machine works in partnership with the worker on the site, providing the extra power required for the various operations. [...] “With the collaborative robot system, man remains in overall control of operations, specifying where and how to proceed. It’s much like power steering in a car”, Marc Maranzana, Project Manager at Colas.
LENGGURU MOUNTAINS
In 2014, Colas once again supported the Lengguru scientific expedition in the Indonesian province of West Papua.
Colas Circle
Jean-Louis Previdi
“Digital still has some surprises up its sleeve!”

Colas on stage
Colas Young Talent sponsorships 2015.

Colas Life
The hidden treasures of Lengguru.

Colas Foundation
Vincent Bioulès
“I’ve come up with a road that is both material and spiritual.”
In a world where more people own a cell phone than have access to water, or where $200,000 are spent every second buying goods and services online, digital technology has well and truly arrived in the world of business. Operating methods, economic models, customer relations, corporate culture and internal organization have been transformed as a result. Interview with Jean-Louis Previdi, the latest Colas Circle guest.

What do you mean by digital transformation?
Jean-Louis Previdi: Here are a few examples to illustrate the influence of digital technology on our lives today: 3D printers make it possible to produce the concrete envelope of a 185-m² house in just 24 hours, a robot has just been appointed to the board of the Hong Kong investment fund DKV with voting rights, some supermarkets now accept the virtual currency bitcoin in payment for purchases... Potentially, absolutely everything can be computerized. Every industry will to some extent be affected by digital technology at some time or another. That’s the reality.

How did the digital company emerge?
J.-L. P.: It started with the computerization of the company, in other words, the automation of a range of processes, mostly back-office: accounting, finance, HR, purchasing, supplies, etc. At that point, the objectives were operational excellence, cost reduction, the harmonization of processes with a view to their standardization. Then, in 2012, the digitized company emerged, with the computerization of processes (such as invoicing, the digitization of objects, etc.). Today, with the advent of the digital company, it is no longer processes that are affected, but rather business models.
We can see how, from a company’s core business, it is possible to add on further models – complementary or partial substitutes – to sit alongside the core business. It’s innovation rather than invention. The only constant running through all these evolutions is the technology, which has become the essential foundation for company expertise supporting business lines.

**How does technology create value for a business?**

J.-L. P.: Let’s take the example of Samsung. All products are either connected or able to be connected. This is a company that understands and connects with its customers. Its business model has thus evolved: having started on the basis of a business-to-business-to-consumer model, Samsung is now capable of going directly to its consumers. That’s what digital technology is all about: the contextualized analysis of information associated with a product provides the company with differentiating value. Finding a new source of income by combining information analysis and product, transforming information into intelligence!

**What are the characteristics of a digital company?**

J.-L. P.: From an operational point of view, the key features of a digital company are agility, responsiveness, market awareness and customer involvement in product and service definition. From a cultural point of view, there are more leaders in the company than there are managers, i.e. people who are capable of taking ownership of a project and carrying with them cross-functional teams. The contribution of IT is crucial here since today all technology is IT technology. At organizational level, a digital company allows employees in the field to take decisions to persuade customers rather than have to systematically refer to their superiors.

**What changes does a company have to make to embrace digital technology?**

J.-L. P.: The Austrian economist Schumpeter used the expression “creative destruction”. Today, corporate cultures have to incorporate risk. We need to accept the possibility that we can’t win them all. We try, we see how things turn out, we change, we go back a step, we start again and so on. We can’t talk about five-year plans anymore because nobody knows where the dollar will be in five years’ time and nobody knows who their competitors will be. You have to be pragmatic and reactive. A digital system is not one in which you have a company on one side, with customers and suppliers on the other. You have to reason in terms of an ecosystem. You have to move from a position of mass production (a product-based model) to one of mass personalization (a model based on the customer and the customer experience). Reaching a customer and being in constant contact with a customer via a multichannel approach is not a differentiating factor. However, developing empathy with a customer, interacting with them and establishing a personalized relationship is what marks you apart. Companies will also have to combine technologies, processes and human expertise, learn to move away from the beaten track. And the question is not whether a company should adopt the digital route, but when they should do it.

**Who should take responsibility for this digital transformation within the company?**

J.-L. P.: The CEO, without a doubt. Digital technology is defining, there are risks, so it’s the CEO’s responsibility. But that doesn’t mean that every idea needs to come from the top. Collective participation is fundamental. The role of the CEO is to breathe life into the transformation and promote innovation.

**Any words of advice to conclude with…**

J.-L. P.: All industries have to contend with the digital challenge. Ultimately, all products and services will be connected. What remains to be seen is how all the information gathered will be processed and analyzed. The competitors of the future are unknown and may appear from a completely different industry. Control of technology is decisive. Companies mustn’t lose sight of the end customer. Once there is disintermediation, margins fall. Companies must start thinking about the business models of the future today, invest in their competitive advantages, innovate, etc. Digital technology still has some surprises up its sleeves!
Colas Young Talent sponsorships 2015

Colas is supporting two rising “stars” from the world of classical music as part of its corporate sponsorship program, Colas on Stage: pianist Jonathan Fournel, and violinist Mohamed Hiber. Below are the portraits of two young musicians on the cusp of an international career.
Jonathan Fournel started playing the piano at the age of 7. He studied at the Sarreguemines conservatory, the Strasbourg conservatory and then the Musikhochschule in Sarrebrucken. In 2009, he applied to the Conservatoire national supérieur de Paris (CNSM - Paris National Conservatory). Admitted with the unanimous agreement of the jury, he has since studied under Bruno Rigutto, Brigitte Engerer, Claire Désert and, since September 2011, Michel Dalberto. Alongside, in February 2011, Jonathan was admitted to Reiko Hozu's accompanists' class at the CNSM. He is currently continuing his studies under Jean-Frédéric Neuburger.

Jonathan Fournel won his first awards in France at the Madeleine-de-Valmalète competition run by the Maurice-Ravel Foundation in Paris and the Franz-Liszt award in the Ile-de-France competition. In 2013, he won the first prize in the Viotti music competition, paving the way for a tour of Italy. In September 2014, Jonathan won first prize and the prize for the best performance of the commissioned work at the Scottish International Competition in Glasgow. In January, with these awards under his belt, Jonathan appeared on tour with the Royal Scottish National Orchestra in March. He will also perform in a series of concerts throughout Italy. In June 2015, Jonathan Fournel will take part in the International Tchaikovsky piano competition in Moscow, one of the world’s most prestigious competitions.

Mohamed Hiber started playing the violin at a very young age and at 9, entered the Conservatoire national de région de Paris (CNR, Paris Music Conservatory). He began his career as a soloist in 2009 at the salle Pleyel concert hall, in Paris, with the London Symphony Orchestra. He went on to win first prize in the Flame international competition. He also won the Flaine music academy grand prix. In July 2009, Mohamed was a soloist with the Czech philharmonic orchestra at the Prague international festival of young musicians. The following year marked a turning point: Mohamed caught the eye of conductor Daniel Barenboim at an audition and the latter invited him to go on two world tours with his orchestra, the West-Eastern Divan Orchestra. The world tour took the young artist to some of the world’s greatest concert halls. In the same year Daniel Barenboim invited him on another major world tour. In the following year, Mohamed secured entry to the CNSM (Paris National Conservatory) to study with Svetlin Roussev. In 2013, he won first prize in the Violin of the North competition, held in Siberia. Since September 2013, he has been studying at the Queen Sofia College of Music in Madrid. In February 2015, he played at the Louvre auditorium with pianist Itamar Golan.

But the rewards are considerable: a springboard to a successful career, visibility, scheduled concerts and contacts with orchestras and conductors.

To take part in these international competitions, participants have to work on specific musical programs and find sufficient funding to pay for one-to-one tuition with “masters” travelling around the world as well as professional quality CDs and DVDs. A demanding training comparable to any major sporting event.
Four years after the first census of the exceptional biodiversity of the Western Papuan karsts, Colas once again provided support for the 2014 Lengguru scientific expedition. Report.

Perched on a wooden hut, a Papuan Hornbill* has been idling away the hours observing the coming and going of rubber dinghies on the river, his blue-ringed eyes riveted by the strange delegation disembarking in the village of Urisa, in West Papua. Following several hours of discussions with the village chief, permission was given for some 50 scientists to set up base camp right in the middle of Urisa. Abandoning his vantage point, the bird emits a deafening sound as he unfurls his enormous wings. His flight is majestic as he heads off towards the steep slopes of the Lengguru Fold Belt, under the envious eyes of the invading scientists, impatient to discover this unique and wild landscape. At the crossroads of Asia, Australia and the Pacific, Lengguru remains one of the last unexplored territories of the planet. Its karstic reliefs, separated by deep valleys, represent a veritable fortress for some of the world’s most developed forest eco-
systems and an extraordinary biodiversity. At the end of 2014, a scientific expedition conducted by the French *Institut de recherche pour le développement* (IRD, Institute of Research for Development), the Indonesian Institute of Sciences (LIPI) and the Sorong Fisheries Academy (Apsor), with corporate sponsorship in particular from Colas, began a census of the biodiversity of the Papuan karsts. Ichthyologists, ornithologists, marine biologists, hydrologists, botanists… With more than 70 European and Indonesian researchers taking part, it was the biggest scientific expedition ever undertaken in Indonesia.

**A voyage of discoveries**

5 a.m. In the village of Urisa, despite the lingering morning mist and the already suffocating heat, there is great excitement in the camp. There isn’t a moment to lose: the camp has to be completed, the samples already collected have to be processed, discoveries must be stored and data saved to the server and the equipment has to be prepared before heading off into the forest… Because in this inhospitable environment, with its rugged reliefs, everything needs to be meticulously planned for any expedition: the recruitment of local guides, sufficient food and water supplies, equipment for gathering specimens and for setting up camp. Each day is punctuated by the comings and goings of various teams and, above all, their discoveries. Throughout the month-long expedition, hundreds of specimens were collected, from 100 meters above sea level up to an altitude of 1,400 meters, reflecting the extraordinary biodiversity of the local ecosystems. On and below ground can be found more than 50 birds, insects (including between 100 and 150 species of cricket), reptiles (47), bats (20), rodents, as well as palm trees and some 300 orchids. In the sea, scientists were particularly interested in hard coral, mollusks, fish (sea horses, pipefish…), selachians (sharks…) and cetaceans (dolphins…). In January 2015, the teams began working on the characterization of the species found (genetic analyses and taxonomy) in Indonesia, a process likely to confirm the discovery of more than 50 new animal and plants species.

**A responsible and long-term partnership**

“It all started back in 2007,” recalls Christophe Voy, Head of Colas Indonesia. Colas and its Indonesian subsidiaries Wasco and ABS formed a research partnership with the IRD. We share their values and objectives in terms of our ethical approaches and long-term commitment to the interests of Indonesian partners.” The financial support provided helped fund a first expedition, back in 2010, followed by a second bigger expedition four years later. Henri Molleron, Colas’ Environment Manager, Christophe Voy, CEO of Colas Indonesia, and Okky Sephenyanto, QSE Manager at Colas Indonesia, travelled to the site to watch the scientists at work. What struck them the most? “The integrity and passion of the research teams, their frugality and complete lack of concern for material comfort, their physical endurance in a hostile and challenging environment”, emphasizes Henri Molleron. “We have never been in any doubt about the scientific quality of the teams or the importance of the scientific material generated by these expeditions. The quality of the balanced partnership between LIPI’s Indonesian teams is remarkable and entirely in keeping with the values defended by Colas in its operations around the world. The approach to dialogue and intelligent development pursued for the benefit of Papuan villages must also be recognized. Colas itself strives to develop similar initiatives with people in the countries where the Group operates.” Having officially raised the curtain on new species, the researchers are set to share their discoveries with Colas employees in both France and Indonesia. A fine example of sponsorship, in which the words “sustainable” and “reciprocal” resonate clearly.

*The Papuan Hornbill (Rhyticeros plicatus) is a bird belonging to the Bucerotidae family.*
How did you set about the commission from the Colas Foundation?

Vincent Bioulès: At first every commission seems like a shackle. But very soon, the feeling of being a prisoner with a set of rules to follow – subject, format, time-scale – is replaced by a feeling of inner liberation. Because, paradoxically, the challenge is to invent and let your imagination run riot. I wanted to avoid painting a road in perspective, which is far too prosaic. So I imagined all those people who walk to Santiago de Compostela and have come up with a road that is both material and spiritual.

What did you want to convey with this road rising up into the sky?

V. B.: The road starts by winding its way through an austere landscape of scrubland before, under the dark light of the moon, being transformed into a road that is celestial and transparent. I thought about that rallying cry, in the language of the Middle Ages, with which the pilgrims greet each other when they meet: “Ultràïa!” meaning “Onward and upward”, i.e. head off to lose oneself and then find oneself. I wanted to illustrate this symbolism of pushing oneself to the limits experienced by people setting off on a journey by road, irrespective of the initial direction chosen.

Your painting immediately calls to mind a starry night sky. Why?

V. B.: The Milky Way and the Route to Santiago de Compostela have always been inextricably linked in the minds of the Santiago pilgrims. I myself am very sensitive to the musical form of Nocturne and the poetry of this theme in painting. With the variations in blue and the use of transparent glazes, I sought to reproduce the night light, one that is somber and yet mysteriously bright from within.
Vincent Bioulès
“Bonne route!”
2014