En route

Colas in West Africa
site-seeing

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en route

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Active for more than 80 years in West Africa, Colas Afrique’s expertise is widely recognized throughout the region. We illustrate the subsidiary’s knowhow and challenges in Côte d’Ivoire, Benin and Togo.

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In South America, Colas Rail is part of a consortium in Santiago carrying out work on lines 3 and 6 of the subway. We go beneath the city’s streets.

Cover photo: headdress of an African woman with braided hair, Benin.
They all do their jobs with enthusiasm and have decided to share their daily routine and projects with us.

Wattway, when roads produce energy.


Training, awards, marathon… Some images of the Group’s events in France and around the world.

Jean-Michel Ribes: “Creativity is more about being yourself than obeying. It’s the insolence of being.”

Artistic creation: supporting talents.

The Road of dreams: the Colas Foundation celebrates its 25th anniversary.

Colas Foundation: Hervé Di Rosa.
Colas enjoyed a satisfactory year in 2016, despite a global economic environment that remained challenging, not conducive to public spending and, by extension, our activities.

Revenue was down by 4% at constant scope and exchange rates, with a drop recorded by some international operations (including French overseas departments). However, the roads business stabilized in France, following several years of significant decline, which is good news.

We achieved our target of improving operating profits. Our action and transformation plans clearly started to bear fruit, as did our capacity to anticipate decreases in activity. Net losses in the bitumen refining activity in France stopped. Efforts aimed at achieving operational excellence and transformation initiatives must continue unabated.

Beyond a satisfactory overall financial performance, we recorded successes elsewhere.

We made a number of acquisitions with promising potential in the Middle East and North America and we sold two stakes in highway operating companies for a good return.

We pursued our major projects, such as the new coastal road on Reunion Island and the Tangiers-Kénitra high-speed rail link in Morocco.

We added a few big projects to our work-on-hand, including the port of Calais extension project, a section of Route 47 in Hungary, a mining project in Guinea-Conakry, two natural gas pipelines in France, along with a multitude of smaller “core business” projects around the world. All of which taken together meant that, at the end of December, our work-on-hand was 2.4% higher than it had been the previous year at constant exchange rates.

In terms of innovation, the success of our Wattway photovoltaic road surfacing across all five continents shows no sign of waning. Now in the full-scale trial phase, pilot sites have been built in France and elsewhere. The Normandy site is the world’s first solar road that can be used by all types of vehicle. Galvanized by our digital transformation momentum, we have also made significant progress in the roll-out of BIM (Building Information Modeling), across our network.

In France, numerous elected representatives have woken up to our deteriorating road and urban infrastructures; in the USA, Canada and the United Kingdom, stimulus plans have been introduced to support infrastructure projects. The uncertainties and challenges remain numerous but I hope that Colas will start moving forward again in 2017.

On behalf of Colas, I’d like to congratulate and thank all of the Group’s employees for everything they accomplished in 2016.
From Poland to Greenland via Morocco, Australia and France…
A rapid trip around the world to see the Group’s jobsites, work in progress and finished projects.

The town of Chamalières, near Clermont-Ferrand in central France, called in Colas Rhône-Alpes Auvergne to redevelop Place Sully, the square in front of the historic church of Notre-Dame. After completing the earthworks, the dozen or so employees mobilized for the project applied 250 tons of Scintiflex® mix. This reflective surfacing, incorporating particles of crushed mirror glass, is a high-quality, economical and attractive solution for the busy square where the town’s market is held several times a week. The team also created six raised pedestrian crossings using Simat®, a sandblasted mix containing white aggregates. As well as being esthetically pleasing, the crossings stand out against the Scintiflex® making them easier to see. The project was completed in August 2016.
Rodrigues is an island located some 560 km north-east of Mauritius, off the east coast of Africa. In 2016, teams from Transinvest Construction, Colas’ Mauritian subsidiary, constructed a 1.3-km section of coastal road, linking the village of Baladirou to Grand Baie. The new road means residents of Baladirou no longer have to take a detour of 10 km to get to the island’s capital (Port Mathurin), while tourists have easy access to the beaches dotted along the route. The project involved earthworks (32,000 m³ of cut/fill, including rocks), the production of concrete for the drains and culverts, reinforcement, a retaining wall, pipes and parapets. The teams also applied surface mixes and installed the various safety features (road markings, safety barriers and traffic signs).

The project, mobilizing some fifty employees, was completed in just five months and the road was officially opened by the Prime Minister of the Republic of Mauritius during a visit to the island.
The project to construct Africa’s first high-speed railroad, capable of handling trains traveling at 320 km/h, is colossal on a number of fronts! As part of a consortium, Colas Rail Morocco is in charge of design and build on 180 km of double track between Tangier and Kenitra. To ensure the smooth running of the project and effectively manage the large volumes of materials involved, Colas’ rail subsidiary in Morocco built two works bases between September 2013 and January 2015, one in Kenitra and one in Tnine Sidi El Yamani. Among the 850 employees who worked on the project, 95% were hired locally, including managerial staff. All new recruits underwent safety training. The organizational structure in place meant the project got off to a record start: 3,564 meters of track laid in a single day by the teams! The newly completed infrastructure is scheduled to be delivered in late 2017/early 2018.

FRANCE

Baldenheim: a facelift for the village square

In July 2016, the residents of Baldenheim in Alsace, northeastern France, were able to admire the newly refurbished square in front of the town hall, following a facelift performed by Colas Nord-Est’s Erstein profit center. Out went the concrete and gravel to be replaced by paving stones and slabs of Vosges granite. This high-quality project was completed in just four months, thanks to meticulous planning designed to keep access open to the town hall, the school and shops throughout the work.
Heading to the slopes at the Allos pass

Last summer, Colas Midi-Méditerranée’s Cozzi profit center carried out upgrading work on Route 908 leading to the Foux d’Allos ski resort, in the southern Alps. The work included the construction of a 300-m² shotcrete wall and built an embankment using Compostyrene®.
Iceland’s Hvalfjördur road tunnel is a strategically important part of the country’s infrastructure, allowing motorists from Reykjavik to reach northern and western areas of the country without having to go all the way round the fjord, a detour that would add nearly 40 miles to their journey. The high traffic volumes meant the time had come to renovate the tunnel’s road surface. Forty employees from Colas’ Icelandic subsidiary began by planing the existing surface before applying 5,000 tons of asphalt mix. To keep traffic disruption to a minimum, the work was carried out in two phases during the low season, from Friday evenings at 8 p.m. through to Monday mornings at 6 a.m. Despite tight deadlines and bad weather, the upgrade was completed on time. The customer was so delighted with the teams’ hard work and the quality of the end result that it awarded the subsidiary a further three tunnel renovation contracts in the country: Nordfjordur, Bakki and Vadlaheidi.
In order to rehabilitate the water-catchment networks in the Saint-Denis river, teams from Colas’ Reunion Island subsidiary built a new pedestrian bridge. However, some of the required construction equipment could not go under the old bridge which provided access to residential areas and the catchment project site upstream. Work began by creating a temporary crossing before the project was brought to a halt by the onset of the rainy season. A 220-ton crane was then installed on-site to erect the new metal bridge – 66 meters long, with steps and ramps for motorcycles – on concrete supports, themselves resting on micro piles long enough to prevent any risk of being washed away. Lastly, the old bridge was dismantled. The completed project was delivered last July.
Teams from Terus Construction, a subsidiary of Colas Canada, spent four months renovating the only road linking the Lax Kw’alaams Indian reserve to Prince Rupert ferry terminal, in British Columbia. The teams, along with all the materials and machinery, were brought in by barge to the isolated site. A total of 120,000 tons of aggregates and 25,000 tons of mixes were required, a logistical challenge met with the support of members of the indigenous community who were fully involved in the project from the outset.
For more than fifteen years now, Branscome, one of Colas’ American subsidiaries, has been carrying out work at the Norfolk international container terminal in Chesapeake Bay, Virginia. In 2017, teams are continuing with a project launched in 2016 to construct a new “north entrance”, the aim being to increase the facility’s handling capacities. On the agenda: earthworks (cut/fill, removal of materials stored on site) and leveling, installation of underground utilities, supply and application of cement bound aggregates (44,000 tons), roller compacted concrete (30,000 tons), and asphalt mixes (33,000 tons). The completed project is set to be delivered at the end of June 2017.

France’s biggest military air base, BA709 Cognac-Châteaubernard, was given a makeover in the fall of 2016. Teams from Colas Sud-Ouest were brought in to carry out much needed renovation work on the badly cracked second runway. Once planing operations had been completed down to the concrete layer dating from the Second World War, fiberglass geogrids were laid to prevent further cracks from developing. In total, 28,000 tons of asphalt mixes were applied in the space of 12 days. The project, which took six weeks to complete, did not hamper operations at the base. In particular, drones were able to continue flying over the runway to reach the hangars.
A jewel in the crown of French heritage, the Chambord Estate, with its royal château, is in the middle of a vast renovation program. In 2016, Colas Centre-Ouest's Blois profit center was on site on three separate occasions contributing to various aspects of the program. At the start of the year, one of the parking lots was redeveloped to accommodate a service area and some 100 spaces for recreational vehicles. Focus then turned to the place Saint-Louis, with its shops and restaurants. Working to a tight schedule with the tourist season fast approaching, the teams had to conduct a number of tests before finalizing the cyclopean concrete*, while the use of old paving stones beneath the façades helped restore the historic appearance of the square. Finally, the second half of the year was dedicated to revitalizing the French gardens, dating back to 1734. Teams applied 21,000 tons of aggregates to create the walkways and installed 7 km of wooden and metal edging. Colas Centre-Ouest will have made a significant contribution to restoring the estate to its former glory.

* cyclopean concrete contains embedded large stones, and requires special mixing equipment.
GREENLAND

On the Tasiilaq polar road

In the summers of 2014 and 2016, Colas Denmark A/S and Colas HF Iceland carried out resurfacing work on roads in Tasiilaq, Greenland, repairing the damage caused by extreme weather conditions and the widespread use of studded tires. The main obstacles with this project concerned logistics and equipment, with only one boat per month stopping in the region between June and November.
Teams from Colas Nord-Est and Aximum (Colas’ Safety and Signaling subsidiary) were part of the consortium working on the final phase of the project to build the A2-A23 interchange, southwest of Valenciennes. The new link road between the A2 and A23 highways was needed alongside the existing interchange to improve the flow of traffic between Lille and Paris. On the agenda: the widening of the A2 highway with the creation of an additional lane, as well as work to upgrade a 5-km section of drainage to current standards. In addition to 100,000 m³ of earthworks, the 60,000 m² of topsoil stripped and the 65,000 tons of mixes applied, the teams built four retention tanks, a sludge treatment tank and seven crossings bored beneath the two roads. The teams involved in the 13-month project had to cope with a number of obstacles: the urban location of the site, work restricted to limited periods at specific times, 90,000 vehicles passing through daily, etc. The new link road was opened to traffic in December 2016.
The new logistics platform in the Auvergne-Rhônes-Alps region operated by Socara – Leclerc Group’s purchasing organization – is resolutely modern. In addition to the administrative and storage buildings, it will house a 30 m-high automated storage and retrieval system (stacker crane). This fully-automated machine, which operates in a warehouse environment, is designed to store pallets. Teams from Smac’s Vaulx-en-Velin profit center were responsible for waterproofing the roof, carrying out cladding work and installing the firewalls. The main challenge facing the teams was the stacker crane facility. The building is made up of racks forming a metal frame that supports the roof and cladding. In addition, the separation corridors between the three units are fitted with firewalls just 80 cm apart. The teams therefore had to use equipment specifically designed for confined spaces: fixed gantries on the roof with hook conveyors. The work will be completed at the end of summer 2017.

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Colas Australia on the Pacific Highway

Two of Colas’ Australian subsidiaries are working on six sections of the Pacific Highway, between Port Macquarie and Coffs Harbour. For this major road-widening project, teams from SRS Roads are responsible for spray sealing, while teams from Tropic Asphalts are applying the wearing course.

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Smac reaches for the sky

The new logistics platform in the Auvergne-Rhônes-Alps region operated by Socara – Leclerc Group’s purchasing organization – is resolutely modern. In addition to the administrative and storage buildings, it will house a 30 m-high automated storage and retrieval system (stacker crane). This fully-automated machine, which operates in a warehouse environment, is designed to store pallets. Teams from Smac’s Vaulx-en-Velin profit center were responsible for waterproofing the roof, carrying out cladding work and installing the firewalls. The main challenge facing the teams was the stacker crane facility. The building is made up of racks forming a metal frame that supports the roof and cladding. In addition, the separation corridors between the three units are fitted with firewalls just 80 cm apart. The teams therefore had to use equipment specifically designed for confined spaces: fixed gantries on the roof with hook conveyors. The work will be completed at the end of summer 2017.
Route 307, one of the major roads serving the Yvelines region, near Paris, is used by 40,000 cars and 2,000 trucks daily. In September 2016, a consortium made up of Colas Île-de-France Normandie (IDFN) and Bouygues TP completed the first phase of the Saint-Nom-la-Bretèche bypass project. On the agenda: earthworks (more than 150,000 m³ of earth shifted), the construction of two large traffic circles and a tunnel. The teams also built five retention tanks, created underpasses for cyclists and pedestrians and installed acoustic barriers to reduce noise pollution. In order to meet the tight deadlines, five teams from Colas IDFN worked on site simultaneously. The second phase of the work, scheduled for 2017, will include the creation of a 4-lane road and a cycle path.

A drainage system in Prague

The renewal of the drainage network on Českobrodská Street continues to advance in the Czech capital. Teams from Colas CZ are responsible for laying one kilometer of pipelines, at depths of between 7 and 16 meters. The project is set to be completed by the end of 2017.
Highway A75: a high-speed project

Colas Midi-Méditerranée’s Est-Hérault profit center is carrying out maintenance work on a 20-km section of the highway A75, between the towns of Pézenas and Clermont-l’Hérault in southern France. The project involves planing the existing surface to a depth of 8.5 cm and applying a layer of semi-coarse asphalt concrete followed by a layer of ultra-thin asphalt concrete with modified binders, to increase surface roughness. Aximum, Colas’ safety and signaling subsidiary, has also been involved for the road markings. The first three 5-km sections were completed in the fall of 2016. The final section is due to be finished in the spring of 2017. By the time it is delivered, the project will have required the application of 70,000 tons of asphalt mix.

A new look for downtown Périgueux

At the start of 2016, the place André Maurois, close to the historic center of Périgueux, was given a facelift by teams from Colas Sud-Ouest’s Saint-Astier profit center. In addition to the networks and pavement surfacing, the project also involved the application of deactivated concrete, incorporating bands of limestone paving. A fine illustration of Colas’ expertise in the field of high-quality urban redevelopment.
As part of the highway resurfacing and reinforcement program in preparation for the COP22 conference in Marrakech, in November 2016, teams from GTR, Colas’ Moroccan subsidiary, worked on Highway A7, between Casablanca and Marrakech. Fifty employees carried out a range of operations – planing, the application of asphalt mixes and road markings – on ten sections of this major tourist route. As well as the logistical challenges associated with the just-in-time delivery of the aggregates to the site, the teams also had to deal with temperatures of up to 45°C.
FRANCE

On your bikes at the Combloux pump track!

Applying a uniform layer of mix along a 210-m section of track peppered with tight turns and bumps, transporting 90 tons of mixes to a difficult-to-access site... teams from Colas Rhône-Alpes Auvergne had their work cut out to create a pump track in the village of Combloux. Facing Mont Blanc, the track is designed for cyclists, skateboarders, scooter riders and roller skaters.

SWITZERLAND

New bus lane at the Franco-Swiss border

To relieve traffic congestion on Route 6, between Divonne-les-Bains, in France, and Coppet, in Switzerland, road-widening work was carried out between December 2014 and the end of 2016, incorporating a bus lane and two cycle lanes. Objective? To encourage people crossing the border to leave their vehicles at home and use the bus, with the number of daily services set to increase. Teams from Colas Switzerland, working with the road still open to traffic, were tasked with planing 16,000 m² of existing surface, and applying asphalt mixes, road markings and signaling. The newly upgraded route will reduce journey times for the thousands of French residents who work over the border in Switzerland.
The new Posnania shopping mall, opened in October 2016 in the Polish city of Poznan, plays host to some 300 different shops and businesses, including 40 restaurants, a cinema, a swimming pool and a gym. The ultra-modern complex – one of the biggest commercial investments in Central Europe – has benefited from Colas Polska expertise. Teams from Colas’ Polish subsidiary were responsible for roads and services, including the construction of 5.5 km of new roads, 8 km of cycle paths and sidewalks, the renovation of 1.5 km of existing roads, as well as signs and signals. One of the distinguishing features of this project was the use of foam bitumen asphalt mix, produced at a temperature 30 degrees lower than that used for a standard asphalt mix. Some one hundred employees were mobilized for the project each day.
Inaugurated in 1995, the pont de Normandie road bridge spans the Seine estuary at a height of 215 meters. An iconic feature of the Normandy region, this strategic route is used by more than 7 million vehicles every year. Teams from Colas Île-de-France Normandie’s (IDFN) Le Havre and Maromme profit centers were brought in to carry out the renovation work required to repair the damaged surface caused by the heavy traffic. The work included waterproofing of the access ramps to the deck and renovation of the wearing course, with teams opting to use cold slurry surfacing, an environmentally-friendly solution with a performance comparable to that of hot mixes with an identical formula. A fine reference for Colas IDFN.
Colas in West Africa
CÔTE D’IVOIRE
General-de-Gaulle bridge in Abidjan, in the 1960s.

BENIN
Paving a dirt road between Tchetti and Savalou (42 km).

TOGO
Building a water tower in Lome (2011).
Active for more than 80 years in West Africa, Colas Afrique has been responsible for building numerous infrastructures in a region where its expertise is widely recognized. Be it roads or major engineering structures, teams operate in “project mode”, often having to cope with difficult logistical conditions. Traveling from Côte d’Ivoire to Benin, via Togo, we illustrate Colas Afrique’s know-how and challenges below.

West Africa covers all of western sub-Saharan Africa, also known as ECOWAS (Economic Community of West African States), explains Stéphane Knebel, Manager, Colas Afrique. “The Group arrived in the 1930s, and has carried out projects in Mali, Burkina Faso, Senegal, Chad, Côte d’Ivoire, Benin, and, from time to time, other countries too. At the moment, the majority of our projects are concentrated in Côte d’Ivoire, Benin and Togo. Our activities tend to be cyclical and we mainly operate in “project mode” to contribute to the development of infrastructures in places where access is often difficult. Anticipation, innovation, flexibility and mobility are our principal strengths.”

From roads to major engineering structures
“Historically, our expertise has been channeled into road and airport projects in West Africa.” In Benin, for example, Colas Afrique is currently working on a runway extension project at Tourou airport (read p.30) as well as two road projects in the center of the country, turning dirt tracks into roads (42 km between Tchetti, on the border with Togo, and Savalou; 17 km between Logozohoué and Glazoué). In 2009, Colas Afrique also began developing its civil engineering business. The first dry run was in Benin with the Cotonou bridge project. “To develop this relatively new area of expertise in the region, we put together and trained teams and then tested techniques on various jobsites.” In Togo, for example, a water tower with a capacity of 650 m³ was built to supply the daily needs and fire protection for the port of Lomé. In Côte d’Ivoire, Colas Afrique built a 244 m-long bridge over the Bandama river to provide access in and out of the town of Béoumi and contribute to the development of trade in the country’s heartlands.

A traditional activity in Côte d’Ivoire
“In Côte d’Ivoire, a country that accounts for 45% of total GDP in West Africa, Colas Afrique’s activities are slightly different, being balanced between major projects throughout the country and its “core business” (roads and miscellaneous facilities) in Abidjan. For practically..."
> 20 years, there was no significant investment in infrastructure. As a result, the network gradually deteriorated.

Crucial development projects and innovative techniques

“In West Africa, we are working on projects that are crucial for the development of these countries in terms of providing access in and out of remote regions, facilitating movement, etc. And we implement innovative techniques wherever possible.” For example, for the rehabilitation of the lagoon boulevard and the wearing course of the De Gaulle Bridge, in Abidjan, Colas Afrique employed the Novacol® recycling technique, a first in West Africa. The solution is cheaper and more environmentally-friendly than traditional processes.

Mobilization and logistics

“When we operate in ‘project mode’ the two main challenges remain the mobilization of teams and logistics”, underlines Stéphane Knebel. These are often complex projects at difficult-to-access locations, requiring a major organizational effort in terms of logistics. The key qualities required of the managers responsible for overseeing these projects are the ability to anticipate, organize and manage complex projects. “Our business in West Africa is hinged around the pooling of human resources and equipment in order to be operational as quickly as possible. Mobility within the ECOWAS region is also vital to the development of skills and expertise.”

This flexibility and anticipation proved decisive in securing a major contract in a new West African country for Colas Afrique at the end of 2016: Guinea-Conakry.
Remote isolation, just 3 hours from Abidjan. Covering the distance separating Abidjan and Bettié, lying to the northeast of the country's capital, is something of an obstacle course! The culprit is the Comoé river, a natural border between the La Mé region and Indeni-Djaiblin, making access difficult to this remote agricultural region known for its rubber tree plantations. To allow both people from the Bettié area and heavy trucks to reach Abidjan more easily, Colas Afrique was asked to build a bridge across the Comoé. To be able to carry two lanes of traffic, this bridge (total length 190 meters and width 10 meters) will comprise five spans and fifteen pre-stressed concrete beams. The first step was to mobilize teams and equipment. "The difficulties involved in accessing the site significantly increased the amount of time required to transport the materials and equipment", explains Julien Fontaine, project manager. “We had to constantly face unexpected developments, despite our strong upstream logistics." In terms of the work itself, the construction of the six reinforced concrete supports, the foundations and piles in the river proved extremely challenging. "We had a very tight schedule, because during the rainy season, the water level rises so high that work is impossible. This heavily impacts the project calendar as a whole.” A temporary dike was built in the river from which teams could deploy equipment, with a passage to allow the water to continue to flow. By the summer of 2017, the fifteen pre-stressed beams of the deck, manufactured close to the site, will be installed using a launcher. The advantage of this method is that work can continue even when water levels rise.

Eagerly awaited for more than twenty years, the structure will provide easy access in and out of the remote town of Bettié and offer local people a more reliable crossing over the Comoé compared to the river ferry.
Let’s head now to northern Benin, near the country’s third largest city, Parakou. Teams from Colas Afrique are currently working on a runway extension project at Tourou Airport. Built by the subsidiary between 2008 and 2014, the current 2,400 m-long runway is being extended to 3,300 meters to bring it into line with international standards and allow it to handle all aircraft types. “Located 500 kilometers from Cotonou, the site, deep in the bush, represents a logistical challenge in terms of the mobilization of equipment and employees”, explains Olivier Tillement, project manager. “The other feature of the project is the quick pace of the earthworks. Fill operations are being conducted to a height of 16 meters, at the rate of 24,000 m³ per day.” The progress of the project, which began in January 2016, has been dictated by the rainy season, between May and July. Following extensive geo-technical surveys and the draining of marshland, the decision was taken to recycle materials available close to the runway for the fill. “Choosing the appropriate product characteristics was crucial to ensure the long-term stability of the structure”, adds Olivier Tillement. Fill operations were launched after the rainy season. In addition to the cut and fill, teams built a heavily reinforced culvert (330 meters long), that can bear the load of fill to a depth of 16 meters. This hydraulic structure, located beneath the fill, allows the river to flow to the lowest-lying area of the site. The next step is to build the runway structure and apply 15,000 tons of asphalt mixes, produced in the asphalt plant next to the site. Delivery is scheduled for the summer of 2017.
FROM ANÉHO TO TABLIGBO: THE ROAD TO GROWTH

Opened more than forty years ago, Route 4 between Aného and Tabligbo was in need of major renovation work. The contract for the job was awarded to Colas Afrique. “This 43-km road carries the heavy trucks serving Tabligbo’s fast-growing cement industry”, explains Mourad Abaoui, project manager. “It also passes through corn and manioc-growing areas as well as areas dependent on palm groves and large-scale teak plantations, whose wood is highly sought-after in the joinery sector.”

The project called for the widening of the road to create two lanes and shoulders. “The existing pavement was remixed, followed by the widening work, then drainage structures and cement-stabilized subgrade. As for the base course, it was created using crushed materials from a Colas Afrique quarry located 70 kilometers from the site.” The next step was the application of mixes on the last 10 km. The new surface, which now covers 80% of the roadway, makes for better traffic flow and greater user comfort. In parallel, the teams built concrete sidewalks, and installed public lighting in the towns crossed by the road. Launched in March 2016, the project is due to be delivered at the end of April 2017.
In South America, Colas Rail is part of a consortium in Santiago carrying out work on lines 3 and 6 of the Chilean capital’s subway as part of a design, build and maintenance contract. Let’s go beneath the city’s streets.

Colas Rail goes to Chile

A narrow strip of land trapped between the majestic Andes mountain range and the Pacific Ocean. Welcome to Chile, nick-named the jaguar of South America. In 2013, Colas’ rail subsidiary, as part of a consortium led by ETF (a subsidiary of Vinci, project manager), secured the design, build and maintenance contract for lines 3 and 6 of the subway in Santiago, Chile’s capital. On the agenda: the laying of 75 km of electrified tracks in a tunnel (rigid catenary), as well as a further 15 km of overhead electrified lines at the surface. The contract is worth a total of €150 million (Colas Rail’s share is 45%). Work started in August 2015, with line 6 due to open in the second half of 2017 and line 3 in June 2018. A preventive, corrective and curative maintenance program will then begin on the tracks and catenary systems for a period of twenty years.

Two new subway lines

With its 7 million residents – more than one third of the country’s total population – Santiago needs to address some major public transport challenges to support its growth and reduce traffic pollution. To tackle the problems, authorities have defined a transport program covering the period to 2025, with, in particular, the creation of two new automated subway lines. The Santiago subway, currently made up of five lines,
The rails, mountings and switches and crossings are swiped from France by boat to the Port of Valparaíso, 130 km from the capital city Santiago.
SANTIAGO
Lines 3 and 6 cross the capital city of Chile from west to east. Here, a bird’s-eye view of Santiago and the depot of the future line 6 in Cerrillos, to the west of the city.
representing 108 stations and 100 km of track, is used by 2.5 million passengers every day. It is the most extensive network in South America. Line 3 lies entirely underground and includes 18 stations over a total length of 22 km along with a depot for parking and maintenance for 22 trains. Line 6, which is also underground, comprises 10 stations over a total length of 15.3 km and a depot for parking and maintenance of 15 trains.

Optimized tracks and catenary systems

“We worked very hard with ETF to secure this contract”, recalls Salim Hellel, manager of the South America zone for Colas Rail. “While our presence in South America had previously been limited to Venezuela, ETF was already active in Chile, boasting an established commercial network and solid references. By joining forces, we were able to present a competitive, optimized bid, which stood out on a technical level from the rest of the field.” For example, an optimized track solution was proposed, with a new rail mounting system and, for the first time in Chile, the electrification of subway cars via a rigid catenary system (a suspension, installed every 10 meters, supports a rigid rail into which is fed a contact wire). Another example of optimization is the implementation of a floating slab system on the platform, prior to the laying of the tracks, in order to reduce noise for residents.

On all fronts

“The deadline to complete the work on the two lines is extremely tight”, specifies Régis Roche, project manager. “We therefore opted for a ‘front-based’ organization, in other words divided into groups of successive tasks. So there are a multitude of individual projects taking place at the same time: three track fronts, two depot fronts, two gutter fronts, two cable path fronts, two catenary system fronts. This is a dynamic project for which the schedule, constructed around task fronts and progress, is constantly being reviewed for the purposes of optimization.”

The other big challenge is logistics. Operating in an urban environment requires an organization that is accurate to the last millimeter. The first step is to bring in the equipment. The rails, mountings and switches and crossings come from France. They are shipped in to the port of Valparaíso, some 130 km from Santiago. They are then stored on a base in the district of Renca, north of the capital, before being transferred by truck to the various jobsites around the city. Distributed along the

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Salim Hellel, Manager South America Zone for Colas Rail
route of both lines, access shafts are used to transport machinery and materials 36 meters below the surface. Moreover, we are the interface between all the other companies working on the various sites. As manager of the rail transport system, we provide them with the equipment they need to transport the material in the tunnels.

Earthquake-safe standards
Adapting to the environment and seismic risks is a key factor in Santiago. The fact is that Chile lies at the junction of two tectonic plates, with the offshore plate advancing under the continental plate. As the two plates rub together, energy is released, leading to frequent earthquakes, explains Gabriel Plantat, project manager. “During an earthquake, anything in contact with the ground loses its support, hence the importance of designing infrastructures that move with the ground.”

Hiring local people
“When the work was launched, we relied on our Venezuelan employees for their topographical knowledge and their expertise in site management,
up to team leader level", reiterates Salim Hellel. “Because the last subway project in Chile was some ten years ago, the local workforce, specialized mainly in mining projects, had no rail expertise.” In 2014, a partnership agreement was signed with Inacap (Technological University of Chile) and the French Ministry of National Education, Higher Education and Research to develop training programs targeting rail professions in Chile. Colas Rail and ETF, the consortium partners, are providing equipment, a rail expert and training for teachers, as well as practical training (site supervision, safety, quality, etc.) for company interns. The initiative is designed to pave the way for the recruitment of future rail project team supervisors and foremen for the Santiago subway.

**A well-established presence**

For its first project in Chile, Colas Rail has been able to draw on its experience in Venezuela (see box p.35), as well as local expertise. It has also adapted its know-how to a new environment. “These projects are our showcase”, points out Salim Hellel. The consortium involving ETF and Colas Rail thus recently secured the maintenance contract for the Santiago de Chile subway for a period of seven years. The contract, worth 35 million euros, covers preventive and curative maintenance operations, and “special corrective operations” on the pneumatic tracks on lines 1, 2 and 5 and the metal tracks on lines 4 and 4A. It also covers milling operations on the latter two.

The next chapter in an exciting adventure in Chile for Colas Rail.
Administrative managers, complex project managers, team leaders... They all do their jobs with enthusiasm and have decided to share their daily routine and projects with us.

Kanchit, an asphalt plant manager with Thai Slurry Seal (TSS), a Colas subsidiary in Thailand, doesn’t hesitate when asked what he likes most about his job: “working for an international company that promotes high-tech solutions and quality”. Born in Bangkok, the 47-year old father of two had no experience in road construction when he joined TSS in 1999 as asphalt plant operator. He is now responsible for four asphalt plants, including one that has been acquired recently and one that has been entirely refurbished. Supported by a team of 25 employees, he supervises the annual production of 150,000 tons of hot mixes. His role also entails managing all aspects of operations (maintenance, reporting, transport, etc.). Highly-motivated and autonomous, Kanchit has never shied away from being on the front line and taking on more responsibilities. “I love my job. I know the plants like the back of my hand and I’m fascinated by new production facilities. I feel at home with TSS.”
“The secret of success is making your vocation a vacation.” Aymeric Guégan has made this quote by American writer Mark Twain one of the guiding principles in his busy professional life. Having studied law, before specializing in legal risk management in southern France, in 2004 he joined Colas Île-de-France Normandie as a legal expert. Nine years later, he opted for a complete change of direction and moved to Colas Rail. In January 2017, he was appointed manager of the subsidiary’s new Rail Safety Department. “My team’s mission is to support and evaluate employees and ensure compliance with rail safety rules. This job requires you to be passionate about what you do. Trains operate 24 hours a day, 7 days a week. You’re on the ball and learning every minute of the day.” Aymeric attaches a great deal of importance to relations with others. His secrets? Positive thinking, social and professional networks and a hands-on management style based on motivation. As a manager, he is keen to catalyze the energies of his employees to encourage them to rise up to the challenges facing the subsidiary.
As far as Jean-Étienne Gay is concerned, working for Colas runs in the family. “I’m the third generation to join the Group. Armed with a diploma in electrical engineering and industrial IT, I began my career operating a mobile asphalt plant.” With it, he traveled up and down the country between highway and airport projects with his team, even making it as far as Hungary in 2008 for the M6 Motorway project. The experience served him well three years later when he went back to the country as industries manager for Central Europe. “To start with, the idea was to gain a global view of the asphalt and emulsion plants in the eight countries across the zone with a view to implementing any improvements necessary. The mission then expanded to incorporate production monitoring. I’ve also spent time promoting knowledge sharing and harmonizing practices between teams. As I travel around, I seek to pass on Colas’ spirit and values.” So what does he like the most about his job? “As soon as I arrived, one of my first tasks was to assemble a team of asphalt mix business managers. I derive immense pleasure from working with them all.”
“Spicing up his career”

DAVID JOURDES
PROJECT MANAGER
COLAS NOUVELLE-CALÉDONIE
NEW CALEDONIA

Where his career is concerned, David Jourdes, who joined Colas Sud-Ouest in Bordeaux in 1994, has never stood still, saying “yes” to new opportunities as they came along in order to discover more about the business and “spice up his career”. What drives him? “Contact with other people, the discovery of new cultures and new horizons.” Going to live and work outside of mainland France was something he always wanted to do. After periods as an asphalt plant manager and then site manager in southern France, David worked as site manager on cold pavement recycling projects and tramway projects in Morocco. Then, in 2013, following a stint in Reunion Island, he moved to New Caledonia as principal site manager and asphalt mix and business manager. And now, four years later, the “Neobus” project has sent his career in yet another direction. The project, recently awarded to Colas Nouvelle-Calédonie, concerns the construction of a 6-km stretch of bus transit service route in downtown Nouméa. “The project involves roads and main services, adding yet another string to my bow.” A fantastic opportunity for this former rugby scrum half, who is quick to underline the importance of team spirit on a jobsite.
So what links Stéphane Paguet and Bertrand Béguet? Both profit center managers with Colas Rhône-Alpes Auvergne, they make up one of the first pairings brought together as part of the subsidiary’s mentoring system set up for new center managers. “The aim of the program is to help ease the employee into his/her new role”, explains Stéphane Paguet, a mentor with twenty years’ experience behind him at Colas. “I joined the company as site supervisor and climbed the ladder to become profit center manager.”

Mentoring, which is not about hierarchical relationships, involves communicating on a regular basis. “Stéphane and I get together once a month to share our problems and good practices”, explains Bertrand Béguet, who is being mentored by Stéphane. “I joined Colas as a construction engineer in 2005. I currently supervise 55 employees split between two units. Our monthly meetings allow me to benefit from my mentor’s experience. His advice is all the more invaluable since he himself manages two profit centers.”

As Stéphane emphasizes, “it’s a two-way street. Bertrand comes from a generation that has a different vision of work. It’s extremely helpful for me, particularly when it comes to managing younger employees!”
Jérôme Sobo joined Colas in 2006 as a temporary construction worker. He was soon offered a permanent contract and entered the Group’s training program. Having worked as a builder, in 2012 he became team leader at Colas Nord-Est’s Aube profit center. “Colas trained me and helped me grow.” In 2014, he went to his profit center manager to put himself forward as a workplace first aid trainer, not realizing that regional management had already identified him as being ideal for the role. “It was all very quick. I sat and passed the four modules I still needed to become a trainer. My 22 years as a volunteer firefighter proved decisive.” Now a first aid trainer at regional level, he travels between profit centers to share his expertise. “I’ve discovered that I’ve got a knack for teaching. Being in the business makes it easier to get messages across to the other employees.” A trainer in the winter and out on site in the summer, Jérôme has found a balance that suits him. “I have a great job and a great family. I’m a volunteer firefighter. What more could I possibly ask for?”
Julien Emmanuel, 28, has a motto: “Alone, you go faster; together, you go further.” The philosophy certainly applies to his mission supervising the roll-out of the Copernic project across Smac’s fifteen or so profit centers in eastern and southeastern France. The project, aimed at radically overhauling Colas’ processes, management methods and administration and IT systems, caught the eye of the young administrative manager as soon as he arrived at Smac in March 2016. “I was impressed by the cross-disciplinary nature of the project and the collaborative approach adopted. Ultimately, by providing the Group’s employees with a common tool, we will transform the way we work.” Julien spends two months in each profit center training employees and answering their questions. For this enthusiastic traveler, who has already been halfway around the world, each day brings new experiences.
“You have to be open-minded and uncompromising”

OLIVIA BOUQUET
COMPLEX PROJECT UNIT MANAGER
COLAS CENTRE-OUEST FRANCE

Olivia Bouquet actually wanted to be a doctor but she finally opted for a technical diploma in civil engineering, almost by chance. “I knew I’d made the right decision during my internship on a motel construction project in Marseille.” Olivia thrived on the atmosphere and camaraderie she found out in the field. So she applied to Bouygues with a specific objective in mind: to work on construction projects around the world. She began in technical sales based in the Greater Paris region. “I accepted the job because I knew it would pave the way for a raft of opportunities. Around ten years later, Olivia applied for internal mobility, with Colas Centre-Ouest. “The environment was very different but I had the skills required.” Olivia relocated to Nantes and became manager of the Complex Projects unit responsible for multi-site and atypical projects. “I love this job because you are constantly having to question yourself. You need to be willing to think out of the box to come up with innovative solutions. You have to be open-minded and uncompromising: there is no room for approximation when it comes to innovation!”
CORINNE PILATI  
WELDER  
SKYDÔME  
FRANCE

Born in a small town in the Ardennes, near Sedan, in eastern France, Corinne started out as a welder for General Motors for seven years. She changed companies and spent eighteen years, blowtorch in hand, welding car radiators. Her various tasks combined with her training taught her to “be a jack of all trades and acquire experience.”

When it comes to welding, Corinne can handle aluminum, steel and stainless steel. In August 2016, she went to Sons-et-Ronchères to work at the Smac-owned Skydôme/Axter production site, specializing in the manufacture and marketing of natural lighting, ventilation and smoke evacuation solutions. “I'd spent years working for the automobile industry and then, at the age of 54, found myself doing something completely different. My working environment has changed, as has the material I’m working with. It’s important to be able to reinvent yourself and adapt. I took to welding aluminum in Skydôme plant right away. It’s cleaner, more meticulous.” Corinne is a stickler for accuracy, an essential quality for her other passions: motorcycling, pétanque and fishing.
“I’m out in the field every day.”

ÉMILIEN PESCHÉ
HEAD OF OPERATIONS
COLAS BELGIUM
BELGIUM

Émilien Pesché loves his job as head of operations at the Haut-le-Wastia quarry. “I’d trained in civil engineering, specializing in mining and geology, so I really couldn’t have dreamed of a better start to my career.” Hired in 2012, he was soon promoted to a management position. “I lead a team of up to 15 people, overseeing the annual production of up to 350,000 tons of aggregates, destined for road construction and maintenance.” The role requires technical, commercial and people skills: “I’m out in the field every day. I organize and supervise each stage of the materials production process.” A vast, cross-cutting and versatile role that suits this outdoors enthusiast down to the ground. “I’d hate to be cooped up in an office all day!” Émilien is also something of a globetrotter. His most treasured memory? “The great national parks of the American West. The action of thousands of years of erosion on the red sandstone rock is a magnificent and fascinating work of art.”
Wattway
When roads produce energy

Having completed the first Wattway solar road projects in 2016, Colas is pursuing the experimental trial phase, with new pilot sites in France and around the world.

During the five years that teams from Colas’ Campus for Science and Techniques (CST) and the INES (French National Solar Energy Institute) spent developing the Wattway process, research focused on ensuring the reliability of the materials and their characteristics, while testing their resistance to the limit in the lab regarding weather, road traffic, fire, etc.

In October 2015, Wattway was unveiled to the press by Hervé Le Bouc, Colas’ CEO. In December, at the COP21 conference, the process won a Climate Solutions award.

In January 2016, a Wattway business unit was set up, led by Jean-Charles Broizat, aimed at building trial sites to test the full-scale, real-life solution, work on the industrial process and define models for launching the solution to market.

“Following the huge media success of Wattway, expectations were high and we had to work quickly,” recalls Jean-Charles Broizat. The definition of the Wattway solution hinged around three broad considerations: how to produce the panels reliably, in other words, how to define the industrial process; how to determine, test and guarantee the reliability of the panel application technique used on the roadway; how to connect the panels to the electricity grid, and what would be the most appropriate network architecture for Wattway, while complying with current standards?

Today, 18 employees work in the Wattway unit, which operates as a “start-up” (read box p.53), and 13 trial application sites have been built. The objective of these pilot sites is to trial and evaluate the usages of Wattway.
FOCUS ON...
THREE TRIAL SITES

The Wattway photovoltaic road surfacing has entered the usage evaluation phase via its first trial sites. We take a tour of three of these below.

The first Wattway trial site in Vendéspace

As part of the Vendée region’s New Energies plan in western France, a first Wattway pilot site has been up and running since June 2016 in Roche-sur-Yon, outside the Vendéspace sports and cultural complex. The energy produced by the panels at the site, covering a total area of 50 m², is being used to charge electric vehicles. “This is our very first site and we chose its location with good reason”, explains Jean-Charles Broizat. “The Vendée region is extremely ambitious when it comes to renewable energies. By 2025, the objective for the area is for half of all the electricity consumed to come from renewable sources.”

50 m² of Wattway panels installed at a first Wattway trial site, at the Vendéspace complex parking lot in La Roche-sur-Yon, in the Vendée region of western France

Estimated production: 6,300 kWh/year
Wattway heads to the USA

Inaugurated on December 20, 2016, the West Point trial site, in the state of Georgia, is the first site to be located outside France. 50 m² of Wattway panels were applied on a section of the Ray C. Anderson Memorial Highway (also known as “The Ray”), outside the Interstate 85 visitor information center. The electricity produced, estimated at 7,000 kWh/year, helps to power the building.

50 m² of Wattway panels installed at a rest area on Interstate 85

Estimated production: 7,000 kWh/year

1 km of solar road in Normandy

Unlike the other Wattway pilot sites, which have an average surface area of between 50 and 100 m², the Orne site concerns a 1-km section of road. The initiative is one of the trials being carried out as part of the energy transition policy led by the French Ministry of the Environment, Energy and Marine Relations and supported by the Orne local authority. With 2,800 m² of Wattway photovoltaic panels to be laid, this site required specific logistics and organization. Located close to the Wattway panel production site* (read box p.52), the work lasted three months.

* On July 26, 2016, the SNA plant hosted Ségolène Royal, French Minister for the Environment, Energy and Marine Relations, responsible for International Climate Relations.

2,800 m² of Wattway panels applied on a section of Route 5 in the Orne region of northern France

Estimated production: 280,000 kWh/year
SNA
A SOLID REPUTATION FOR PHOTOVOLTAIC KNOW-HOW

Following the call for bids launched at the end of 2015 by the INES (French National Solar Energy Institute) and the CST (Colas’ Campus for Science and Techniques), SNA (a cooperative enterprise) was awarded the contract to produce the Wattway panels. Based in Tourouvre (Normandy), SNA had the expertise and flexible industrial facilities required to begin production. What’s more, the company already had a solid reputation for its know-how in the photovoltaic sector and its innovative capacity. In 2012, SNA won the innovation award at the EnerGaïa exhibition for the design of Glasswing, a photovoltaic module that generates lighting. From 2018, SNA will be able to use its production capacity to ramp up its output of Wattway panels.

7,500 m² of Wattway panels, supplied by SNA to Wattway during the experimental phase

50,000 m² of Wattway panels, SNA’s annual production capacity on one line
WATTWAY
“IN START-UP MODE”

Wattway is the first Colas entity to operate as a start-up.

"This mode of operating meets the needs of a cross-disciplinary project, requiring expertise contributed by all our subsidiaries," explains Jean-Charles Broizat. "A Wattway business developer will be appointed as the principal point of contact in each regional Colas subsidiary in France. Two international business developers have been appointed, one for the International Networks (excluding the Americas) and one for North America.

We have a very agile operating mode, ideal for innovation purposes. Our teams are on the sites every week. They gather data, analyze it and use it to feed into the reflection process. We feel a real appetite, both inside and outside the Group, for Wattway and the contribution the technology can make to the energy transition and global climate issues."

"Anticipating how the Wattway panel will develop"

Johnny Clatot began his career as a research engineer at the R&D Institute for Photovoltaic Energy in Chatou before becoming a start-up. He joined the Wattway unit in February 2016. "I'm mainly responsible for the photovoltaic panels and what happens to them on the various trial sites. I focus on the resistance of the materials making up the panels, depending on the different usages. The objective is to correlate all the data associated with usage to the energy production of the surface as a whole. I also work on obtaining photovoltaic certifications and the Wattway life-cycle analysis. And lastly, I gather intelligence regarding new photovoltaic technologies in order to anticipate how the Wattway panel will develop in the future."

"Offering Wattway solutions to our partners"

Jérôme Chanut, electrical systems engineer

An engineering graduate from the EPIMI engineering school in Cergy-Pontoise, Jérôme Chanut began his career installing photovoltaic and thermal systems in Polynesia. When he returned to mainland France, he spent seven years in a photovoltaic design office, before moving on to work with two different solar energy producers. He joined Wattway in February 2016. "I work on the development of specifications for the implementation of pilot projects, as well as the electric architecture in order to optimize costs and offer our partners the best Wattway solutions."
A new visual identity for the Group

On February 1, the Group unveiled its new logo and signature. Simple evolution or revolution? “Over the years and decades, while remaining anchored in the foundations of the past and its values, Colas has gradually undergone a major transformation”, notes CEO Hervé Le Bouc. “Our activities have become increasingly diverse, we’ve increased the number of subsidiaries and entities around the world, we’ve introduced new products and services and innovative solutions for our customers and we’ve witnessed a shift in the overall profile of our workforce. Colas continues to drive forward and come up with new challenges. The logo and signature of a company should reflect its identity and ambition. As such, I wanted to revamp them and give Colas the image of a forward-looking company.”

Modernized logo
In a nod to the past, the new logo retains three elements from the former logo that are so symbolic for Colas: the yellow color, the diamond shape and the name. To illustrate the present and herald the future, the logo has been modernized: the diamond, no longer framed, reflects dynamic movement; the new font chosen for the name is lighter, more graphic.

“We open the way”
The old signature (“The road forward”) did not adequately reflect the diversity of activities. The new signature – “We open the way” – is a symbol of leadership, innovation and openness.
Colas’ new head office building, designed by AECP architects, will be located in Issy-les-Moulineaux, at the edge of the 15th arrondissement of Paris.

In the second half of 2018, Colas SA employees will move into their new head office, in Issy-les-Moulineaux. The facility, currently under construction, will have eight floors. “Cut like a diamond with several prism faces, this bow-shaped building will resemble a fully-stretched sail”, explains architect Christian de Portzamparc. Several Colas Île-de-France Normandie subsidiaries are contributing to the construction work. Teams from Genier-Deforge demolished the existing buildings, while employees from Cosson removed the concrete rubble to its recycling platform. Colas Civil Engineering carried out the support works required prior to building construction. Throughout the construction process, studies continue concerning the layout of the internal spaces, with designers seeking the best configurations for collective work. In December 2016, a demonstrator was set up in the current head office building in Boulogne to allow employees to test the new work spaces. The trial facility comprises some twenty open-plan work stations, a closed individual office and specific work spaces (areas dedicated to collaborative work, quiet work, meeting room, etc.).
As part of the New Momentum project at Colas France, an offer called “Colas & vous”, designed to serve private individual customers, was launched.

“New momentum for the private market”

“The construction market for private individuals in France is worth around €1.5 billion”, explains Thierry Guigue, Sales Manager with Colas Midi-Méditerranée. “And since Colas is already present in this market, there are significant development opportunities to be had there.” As part of the New Momentum transformation project launched by Colas in 2016, a specific offer for private individuals in France has been created. Known as “Colas & vous”, it is structured around ten “commandments”. “For example, each profit center has a unit responsible for contracts with private individuals (one manager and three employees), explains Thierry Guigue. “The customer will have just one contact person throughout the project.” Specific tools have also been created including: a website, www.colasetvous.fr, presenting the product range and completed projects; a toll-free number, finance options via a credit provider; a set price list for the product range. The first quarter of 2017 was dedicated to providing commercial, financial and technical training to the managers and teams working for the “private individuals” unit. The first “Colas & vous” projects are set to be launched at the beginning of April.”
DE VOUS À NOUS,
LE PLUS BEAU DES CHEMINS

ZONE CIRCULABLE
ZONE PIÉTONNE
TERRASSE

COLAS & VOUS
EMBELLISSEZ VOS EXTÉRIEURS

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Promoting diversity consists in tackling prejudice and discrimination in order to facilitate the emergence of expertise and talent. Pascale Zurcher, Head of Diversity, explains the Group’s policy below.

You recently joined the Group to implement the Diversity policy. What are the challenges facing Colas in this area?

Pascale Zurcher: There are three broad challenges. In terms of HR, we need to focus on developing our appeal and recruitment. In commercial terms, we have to bear in mind that our diversity policy is assessed by our customers. And in legal terms, discrimination is a crime.

Considering all these factors, the Group has defined four areas of focus for 2017: gender diversity and disability, considered to be priorities, social inclusion and age management.

How do you ensure better gender diversity in the Group?

P. Z.: In 2016, women made up 10% of the Group’s global workforce. If Colas genuinely seeks to reflect society, this figure needs to improve. Gender diversity is a lever for attractiveness and growth, and the Group cannot do without female talent.

Our action plan hinges around three major avenues: attract, recruit, retain. Firstly, we need to attract more women into our businesses. We’re going to strengthen our ties with higher education establishments around the world, and work on our “employer brand”, highlighting some of the careers of the women currently with the Group. Secondly, recruit. Mentalities have to change. We must tackle the prejudice that hampers the recruitment of female talent. E-learning modules to raise awareness of the issues will soon be available to recruiters and managers. Thirdly, retain. We need to adapt the support we provide to women, whose careers tend to be less linear than those of men, and be able to offer them opportunities that match their skills and expectations, just like any other employee.

Acting to support disabled workers comes down to corporate social responsibility.

In addition, we have to meet certain legal obligations in this field. Could you tell us about the initiatives currently in place?

P. Z.: We have had an agreement with the Agefiph (French Agency for the employment of disabled people) for four years now, which has helped drive our efforts in this area, and, at the same time, lower our taxes. We now have to maintain this momentum and launch another action plan. In 2017, we will be focusing on two areas: firstly, the employment of disabled workers and improving job retention. Employees who are experiencing difficulties must be able to speak about them. This principle is an integral component of our wellbeing at work policy. Secondly we’re going to develop our relations with the protected sector and make more use of it for the benefit of all.

A communication campaign will be launched in the near future aiming out to relay these initiatives, tackle prejudices and invite all employees to play their role in supporting the Group’s commitment to disabled workers.

> CONTACT
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Education, integration, personal support... Many of the Group’s employees already give up some of their spare time to help good causes. Now, thanks to the individual skills sponsorship initiative introduced by Colas, they can also give up some of their working time! Launched at the beginning of April, the program is currently being tested at Colas Ile-de-France Normandie before being rolled out across the Group in France in the summer of 2017. “Initiatives like this are part of Colas’ DNA,” underlines Cédric Mendes, head of recruitment and higher education relations. “Hervé Le Bouc wanted to give each employee the opportunity to contribute in their own way.” Signing up couldn’t be easier: simply go to www.colas-sengage.com, a dedicated platform setting out the various missions offered by Colas’ partner associations. Employees can apply on-line and read about the experiences of those who have already given it a go. Organizing events, food collection, learning support, secretarial support, refurbishment of charity premises, etc. The diversity of options available will allow each employee to give the very best of themselves. A personal commitment that benefits everybody!
Hervé Le Bouc, Colas’ Chairman and CEO, signed a partnership agreement with France’s 1st Foreign Engineer Regiment (REG) on the theme “Build to defend, defend to build, share our values.”

In July last year, Colas Group and France’s 1st Foreign Engineer Regiment (REG) signed a three-year partnership agreement on the theme “Build to defend, defend to build, share our values.” The aim? To install reciprocal dialogue between the managerial ranks of both parties. The initiative is being championed within the Group by Hervé Le Bouc, himself a colonel in the citizen reserve force in France and, as such “ambassador” for closer links between the army and civil society. Short internships will be held over a few days to allow officers from the 1st REG to discover Colas’ professions and environment, while the Group’s managers will, in turn, be taking part in the activities of military units. Objectives: to share experiences, offer a different perspective and stimulate the exchange of cultures and expertise. An “immersion” process that is rewarding on both a professional and human level. With this initiative, the two partners are seeking to promote the common values of openness, discovery and mutual understanding, so crucial to the training of their respective leaders.
Facebook, Twitter, Instagram…

Over the past two years, Colas has been affirming its presence on the social networks. Objective: to raise its profile and develop its appeal. Each site has its specific public and dedicated content… On Facebook, more than 7,000 fans like, comment on and share the Group’s daily posts. On Twitter, 3,800 followers (including numerous elected representatives and journalists) monitor the progress of construction projects via the @GroupeColas stream and the information employees have either published or sent to their communication department. Instagram and YouTube accounts highlight the Group’s activities via photos and videos, while LinkedIn is an ideal platform for sourcing new talent. “The social networks allow us to communicate the Group’s news and convey messages to a maximum number of people”, explains Rémi Colin, media officer in the Communication Department. “We encourage employees to take part and we’re here to explain how they can make the best use of the networks. In 2017, our objective is to expand our communities by offering content that is even more attractive while relying on employees to continue passing on information from the field.”

Colas likes social networks!
Training, awards, a marathon...
Some images of the Group’s events in France and around the world.

COLAS FOUNDATION: 2016 INTAKE
Just like every year since 1991, fifteen new canvases on the theme of the road were added to the Colas Foundation collection, which now contains 350 works. The preview took place on November 15 at head office in Boulogne, in the presence of some of the Group’s employees and winning artists.
CONSTRUCTION PROCUREMENT EMPLOYEES MOBILIZED
To pave the way for the efficient roll-out of the Coupa Sourcing tool in 2017 in France, Belgium and Switzerland, a mobilization day was held in December in Paris for construction procurement employees. More than 130 people attended the event.

SKILLED WORKERS IN THE LIMELIGHT
Back in November, the 96 new members of the Skilled Workers Guild (2015 and 2016 intake) were received at head office in Boulogne by Colas Chairman & CEO, Hervé Le Bouc.

BUDAPEST MARATHON
72 of the Group’s employees, from eight countries in the central Europe zone, took part in the Budapest marathon. Next stop Vienna, for the 2017 marathon!
TRAINING TARGET
SMACampus, Smac’s first in-house training center, was inaugurated on November 25, near Lyon. It comprises three rooms for theory classes and a space – more than 200 m² - with models for practical application. Training sessions are delivered by 15 occasional in-house trainers, all “experts” in Smac’s three main businesses: mastic asphalt, waterproofing, façades/roofing.
At the 2016 BIM d’Or awards, organized by French magazine Le Moniteur to recognize best practices in the use of digital modeling, Colas won a Silver BIM trophy. The PSO hospital project, carried out by GTOI on Reunion Island, was honored in the “New building with a surface area in excess of 40,000 m²” category.

That makes a total of 8 awards so far! Last October, the film Solar Road won a silver dolphin trophy at the Cannes Corporate Media & TV Awards, in the Communication-Marketing category.
Colas Circle
Jean-Michel Ribes
“Creativity is more about being yourself than obeying. It’s the insolence of being.”

Colas on Stage
Supporting talents
The latest news.

Colas Foundation
The Road of dreams:
the Colas Foundation’s 25th anniversary.

Hervé Di Rosa
“The road is a recurring theme in my work.”
Back in December, at the Colas Circle, Jean-Michel Ribes, Director of the Théâtre du Rond-Point in Paris, offered his perspective on the theme of creativity. Some of his ideas are summarized below.

What does being creative actually entail?
Jean-Michel Ribes: It’s about saying “no”. Creativity can never exist without saying “no”. If you say “yes” all the time nothing changes. Creating is all about turning accepted logic upside down, finding escape routes, jumping into the void. That’s creativity: showing the flipside of the world to demonstrate that the right side up is sometimes slightly ridiculous. Reinventing reality. Doing something libertarian. Ultimately, it’s about survival. Because reinventing the world is about living, offering hope, advancing. Creativity is also about being true to what you are, being yourself rather than obeying. It’s the pleasure of being. I’d even go as far as to say the insolence of being.

When you’re creating, do you allow ideas to come to you? Do you seek them out?
J.-M. R.: I think the more you seek ideas, the harder it is to find them. I’m not like some of those amazingly talented writers who simply read a newspaper and say “ah look, there’s an interesting story, I could do something with that… pollution, the war in Iraq, Putin, etc.” I’m allergic to imposed reality. When I’m writing a play or a script, characters come into my head, start talking, lead me. And I follow them. I always say that I do airport cinema or theater, in other words I invite people to board an airplane for immediate takeoff. The destination is unknown, even by me. There’s always a surprise!

Jean-Michel Ribes

“Creativity is more about being yourself than obeying. It’s the insolence of being”
At Colas, when we innovate, we test our idea out on pioneer customers and then react on the basis of the customers’ feedback.

Is this method something that could be applied to a creative act?

J.-M. R.: That’s marketing in a nutshell. In the art world, inventions and satisfaction stem from surprise, and sometimes even inconsistency. There are some amazing films out there that have not been made by scriptwriting professionals. And we find in them spaces that we could never have imagined. But if they had been tested, they would have been rejected out of hand. For some industrial projects, tests are very important. But sometimes a project emerges out of the blue that is purely creative and totally outstanding. One hundred people will test it and dismiss it, and yet it’s this project that will enable us to send a rocket to Mars...

Can constraints actually be good for creativity?

J.-M. R.: As soon as people are faced with a constraint, they react. Creativity is all about saying “no” to the constraint. If everyone agrees and nothing changes, there’s no more wind, mountains no longer erode, river levels stop falling, it’s warm, the ice pack melts. It’s the status quo and we call it death. Conversely, the conflictual relationship between a constraint and the person who wants to get rid of it is movement, it’s life. Creativity is fueled by energy and a degree of courage. You also need the help of others. Groups allow energy to emerge, be it in the field of art with the impressionists, the surrealists and the Dadaists, in sport with football teams, or in companies. When you’re feeling weak, you need to find the person who’s going to revitalize things.

Do you mean we should be encouraging co-creation?

J.-M. R.: When I was young, I used to say “writing a play makes me ill, showing it makes me better again”. Because I hate solitude. The great thing about theater is that we’re together. It’s a collective art. Everyone has their job to do: actors act, the stage designer designs the set, etc. But I don’t believe in co-creation. I believe in the influence of meetings, swapping ideas, intellectual stimulation. Some people reveal you, open your eyes suddenly. It’s a fantastic thing to meet people who allow you to shine. Paul Valéry said “A genius is a man who makes me one, too.” It’s true. These encounters galvanize you and boost creativity.

When and to whom do you want to say “yes”?

J.-M. R.: At the Théâtre du Rond-Point, we receive 1,500 scripts per year. We can’t accept everyone, but we love saying “yes”, accompanying, discovering, nurturing seeds left out in the field that could grow into something magnificent. The “yes” is creative and we say “yes” to people who fill us with enthusiasm, who carry us away.

How do you go about choosing scripts from among those you receive without staying with the same style, in order to reinvent yourselves?

J.-M. R.: Scripts are read by a reading committee of twelve people, selected for their sensibilities and because they understand the way we want to do theater. It’s theater that people like but theater that people don’t yet know they like. They are guaranteed to be in for a surprise. The Théâtre du Rond-Point attracts many authors. We kindle vocations and that’s a great thing.

What is your biggest source of pride?

J.-M. R.: To have remained true to my beliefs. I’ve been in the business since I was 16. There’s nothing heroic about it. I’d be incapable of anything else. I’ve been tempted, I’ve been offered things that would have been much more rewarding financially. But I’m happy to have stuck to my path.

Playwright, director and film-maker, Jean-Michel Ribes has been Director of the Théâtre du Rond-Point (Paris) since 2002. A champion of dramatic writing, he hosts authors from a variety of backgrounds, giving free range to creativity, at the crossroads of genres. He has also maintained his commitments to cinema (Rien ne va plus in 1978, La Galette du roi in 1986, Chacun pour toi in 1993, Musée haut, musée bas in 2008 and Brèves de comptoir in 2014), and television, for which he has written TV films and two cult series: Merci Bernard (1982-1984) and Palace (1988-2011). He has written a number of works, including two books dedicated to Rire de résistance (2007 and 2010), paying tribute to all those people, from Diogenes to Charlie Hebdo, who have defied power through laughter and humor.
Artistic creation

Supporting talents

Dedicated to dancing and music, Colas on Stage creates bridges between the worlds of art and corporate messages. Here we take a look at some of the latest news.
Until The Lions

Akram Khan Company and Colas have been traveling the road together since 2010. The Group has been supporting the development of the dance company via the Colas on Stage sponsorship program. The partnership has enabled the British-Bangladeshi artist to produce choreographies as diverse as Vertical Road, DESH, iTMOi and Toroboka. His latest production, Until The Lions, reinterprets the story of Amba, a female character from the Mahabharata, a sacred book of India. Abducted on the day of her wedding and stripped of her honor, the mythical princess seeks vengeance. But Amba doesn’t have the power to fight back against the person who has offended her. Her determination for revenge metamorphoses her into a male warrior so she can do battle and free herself. Beyond the narrative, the process of the metamorphosis itself is central to this new choreography. Driven by determination, triggered by an obsession with the ultimate goal, the desire to be true to one’s own beliefs causes something that was thought to have already been achieved to evolve towards an inevitable transformation. Akram Khan returns to Kathak, an ancient Indian dance, placing women at the heart of the epic Indian work, traditionally seen as masculine. As is often the case, the choreographer’s intention has echoes in the world of business: the shaking up of codes and transformation are as relevant today as they have ever been. A page is turning with Until The Lions, and with it the certainty for Colas and the Akram Khan Company that both parties have benefited mutually from their differences.

Colas young talent grant 2017

For the third year running, Colas is supporting young musicians as they embark on their international careers: in 2017, the cellist Laura Szabo and the violinist Mohamed Hiber, supported by Colas since 2015, were awarded grants.

Born in Hungary in 1993, Laura Szabo began learning the cello at the age of 6. She entered the Kodály music school. She soon began winning international awards: Liezen in Austria, János Starker in Hungary, Gorizia in Italy, Antonio Janigro in Croatia and the "Talents for Europe" award in Slovakia. Finally, in 2010, she won the David Popper international cello competition in Hungary. Laura made her orchestral debut at the age of 15, playing with the Szekszárd Chamber Orchestra in Hungary. In 2008 and 2010, she secured a grant to study at Indiana University in Bloomington (United States), where she had the opportunity to play alongside acclaimed artists such as János Starker, Susan Moses, Csaba Onczay and Daniel Morgenstein. At the age of 18, she performed Dvorák’s Cello Concerto with the Kecskemét Symphony Orchestra. At the end of 2010, she joined the prestigious Queen Sofia College of Music in Madrid, studying under Natalia Chakhovskaja, and then, four years later, under Ivan Monighetti. Cellist Gautier Capuçon selected her from a number of applicants to join his LVMH “Cello Class of Excellence” for the 2016-2017 season. Laura Szabo will be performing alongside Mohamed Hiber on October 2 at the Variety Theater in Paris, sponsored by Gautier Capuçon and Frank Braley.

Mohamed Hiber Update

In March 2017, Mohamed Hiber took part in the International Violin Competition in Morocco before heading off on a chamber music tour in the Netherlands. In April, he recorded Schubert’s/Widmann’s Octet at the National Auditorium, then will sit the entrance exam for the Hochschule in Munich, before giving a recital in Grenoble. He will spend the summer touring with Daniel Barenboim in South America and Europe. Still in the summer, he will perform as a guest artist at the Jerusalem International Chamber Music festival.

Aurélien Pascal Update

Colas young talent 2016 Aurélien Pascal, cellist recorded Danzi’s Concerto with the Chamber Music Orchestra of Munich, for Sony Classic. Album available in spring 2017.
To mark its twenty-fifth anniversary, the Colas Foundation asked Jean-Michel Ribes, director of the Rond-Point Theater in Paris, to create a show celebrating painting, called La Route des rêves (The Road of Dreams). Where dance, magic, song, comedy and video merge to pay tribute to the Foundation.
It all starts with an evanescent ball of light moving across a darkened stage to the calls of its master-dancer. And so it is that the captivated public discovers The Road of Dreams.

For more than an hour, they are treated to a show involving contemporary dance, theater sketches, tightrope cyclists and a burlesque diva, against a sound track in which Mozart rubs shoulders with hip-hop. The common theme running through the entire performance is painting, specifically the Colas Foundation collection, projected via video.

For three days, at the beginning of February, the Rond-Point Theater hosted a unique show celebrating the work of the Colas Foundation which, for the past twenty-five years, has been commissioning works on the theme of the road from artists selected by a jury made up of Group employees and personalities from the world of art. The collection, called “Roads of the Imagination”, currently boasts some 350 canvases.

A living art show reflecting an evolving collection

“For the Foundation’s twenty-fifth anniversary, I wanted this sponsorship initiative dedicated to painting to take to the stage, in the form of a show highlighting the diverse nature of Colas’ commitment, which also embraces dance and music through Colas on Stage”, explains Hervé Le Bouc. “So I asked Jean-Michel Ribes, one of the masters of shared culture, to come up with a living art production reflecting an evolving collection and a multidisciplinary artistic sponsorship program, hinged around creation and supporting talent. He was given carte blanche.” For this show, the producer wanted to bring together dance, magic, song, comedy, circus and video, with each art serving as a medium to highlight the Foundation’s paintings. Choreographer Angelin Preljocaj and composer Reinhardt Wagner joined forces with numerous artists to, in the words of Jean-Michel Ribes, “compose an on-stage ode bringing together diverse talent to gracefully express their love of painting and their desire for the road”.

Dialogue between various art forms

With front row seats, the Group’s employees came out in numbers to enjoy the show alongside the company’s customers, artists and students. In total, 1,500 people attended the event. Hervé Le Bouc had this to say afterwards: “thanks to Jean-Michel Ribes’ typical joyful audacity, The Road of Dreams opens up new horizons, carried by a dialogue between various art forms”.

In 2012, for its 20th anniversary, the Colas Foundation had an exhibit outside the Group. For three days, twenty emblematic works left the offices and were exhibited at the Ecole des beaux-arts in Paris.
Hervé Di Rosa
“The road is a recurring theme in my work”

How did you approach the Colas Foundation commission?
Hervé Di Rosa: Although I’ve had commissions in the past, it is not an exercise I’m really familiar with because there is always an underlying risk of disappointing the client. But this was a bit different. The road is a recurring theme in my work. Or, more accurately, the road as traveled by fantastical, wacky vehicles, more akin to road mythology than reality.

Your painting brings to mind the make-believe of comic strips and cinema. Do you use this as a source of inspiration?
H. D. R.: I’ve always been fascinated by the cars in Tintin and James Bond, the big American ones, the racing cars in the Wacky Races. When I was young, I traveled the legendary roads of the United States, such as Route 66 and Route One, between San Francisco and Los Angeles. In this painting, I’ve depicted characters very representative of my work, based on the cartoon characters in Les Renés. Here, they’re taking part in a high-speed pursuit but everyone’s having fun.

But the road’s far more than just a myth for you because you travel all over the world to discover new artistic techniques…
H. D. R.: In some countries, it’s the only way to get around, and I traveled a fair few when I was on my world tour. Every road is unique in terms of route and construction method and they fire my imagination. Many have been a source of wonder to me. There’s one in Mexico going down to Acapulco that is so dangerous it’s been closed to traffic.
Hervé Di Rosa
“On the road”
Colas Foundation 2016