EN ROUTE

On the road to Morocco
Starting points

ALAIN Dupont
The United States struck at the very heart of its financial and military power, the hatred of terrorism carried to its most blind extreme…

The world has been shaken – shaken by the violence of this catastrophe, and shaken, too, because everyone today shares the feeling that nothing will ever be the same again.

In the face of the horror of these attacks, and looking ahead to the many enduring consequences that this disaster is sure to generate, our Group, which has established operations in numerous states over the past thirty years, wishes to take this opportunity to express its profound and heartfelt sympathy and solidarity with its teams in the United States, and with each individual person.

There can be no doubt that September 11, 2001 will mark the beginning of new era. Some people have already described it as the “New World Disorder”.

Acts of war are born of the total lack of understanding between people, of their complete inability to communicate. A new balance will have to be created, and it will depend on the efforts of everyone.

Our business as a road builder puts us at the heart of this project: is the road not a crucial vector of communication? As a Group with an international ambition, we have a duty to the planet as a whole. More than ever, we must show respect for and understanding of the cultural identities of the countries in which we work.

The road that takes us from continent to continent is a united road, a road that will link us together under all circumstances.
LATITUDE/LONGITUDE
From Poland to Gabon, from Le Mans to an indoor ski slope, snapshots of Colas expertise around the world.

DIRECTIONS
Drivers
- Management, methods, markets…
  What’s changing at Colas around the world
Backward glance
- A Compostyrene project in the French Riviera
In depth
- Construction, another line of business

ITINERARIES
Working behind the scenes or under the floodlights, these are the men and women who make the Colas Group what it is today

INTERSECTIONS
- Louis Schweitzer, a CEO with a vision
- Claude Martinand: constructing a Europe of transportation

Contents

ROUTES number 11
Marrakesh
Morocco

EN ROUTE

France

Somaro – equipping the road

The Bratislava Theater, Slovakia
Slovakia

Cesty Nitra faces the challenge of the future
French fries and Champagne
The McCain company is currently building a frozen French fries plant at Châlons-en-Champagne. This huge production facility, the largest belonging to the Canadian food giant, comprises 30,000 sq. meters of buildings and will shortly have a production capacity of 25 metric tons of frozen French fries per hour. Between April 2000 and July 2001 a team from the Screg Est profit center at Châlons-en-Champagne carried out the general earthworks, 100,000 sq. meters of platform for the buildings, the waste-water treatment pond and the paving, consisting of 60,000 sq. meters of access roads and parking lots. The team was also responsible for all of the external pipe networks, which amounted to 7.5 km of pipes between 200 and 1,000 mm in diameter providing rain-water and wastewater drainage and 6 km of trenches for burying electrical, telephone and computer cables. This vast project, completed in a very short period, required 10,000 metric tons of bituminous concrete and 50,000 cubic meters of cut and fill. The site has been designed to accommodate a second production facility some time in the future.

A tramway for Bordeaux
The city of Bordeaux plans to inaugurate its new tram system in the summer of 2003. Twenty-five kilometers of rails that will be brought into service will eventually be extended to a three-line, forty kilometer network. Colas Sud-Ouest has worked on a 1.8 km stretch, carrying out the infrastructure which comprises the excavations and external structures such as drainage, curbing and roadways. Conduits were laid to carry the video, telephone and optical fiber cables that are required to run the tram system. The project also includes construction of the 5,500 sq. meter parking lot with application of Colétanche. Screg Sud-Ouest is working on the application of special treatments for the wearing course on the intersections, pedestrian crossing and stations. Scintiflex, which is made up of thirty percent of mirror fragments and which sparkles, is used to differentiate the tramway zone from the traffic roads, for greater safety. A second application, Metalflex, is used to prevent the risk of rutting at intersections.
A go-kart track at Rivesaltes

Nestling in the heart of the eastern Pyrenees, Rivesaltes, a town noted for a type of sweet wine, is set to become the new rendezvous of go-kart enthusiasts. Since April 6, the Puissance Kart organization has been proud to present to fans of speed and sensations the biggest go-kart track in the world – 9 meters wide and 1.5 km long – on which 36 vehicles can compete.

For the Colas Midi-Méditerranée profit centre at Thuir, the project required three years of design and engineering, performed in collaboration with the technical department of the Aix-en-Provence subsidiary, but barely two months of work. The site was completed within record time by the Thuir team, who had to work to a stipulated schedule that took account of the directives of the French go-kart federation. 20,000 sq. meters of track were carried out under these conditions, which required 10,000 cubic meters of earthworks.

Following treatment of the sub-base with hydraulic binder to improve its load-bearing capacity, 11,000 metric tons of coarse gravel were applied. The track was finished with two layers of asphalt mix, the second layer consisting of a mix with a special Colflex binder-based asphalt mix developed by the subsidiary’s laboratory.

The track, which can be hired and will be used for competitions, is designed for karts to be driven up to 180 kph with just two centimeters ground clearance. Because of these criteria, Colas had to produce a perfect track surface for the safety and comfort of everyone concerned. This goal was finally achieved when the track was approved by France’s karting federation.
Cold micro asphalt surfacing paves the way in the Caribbean

Colas Guadeloupe has won two special contracts, one for the rehabilitation of the streets in the town of Abymes, the other for renovation of the major roads of Grande-Terre and Basse-Terre islands, including the improvement of the renowned Châteaux Point viewpoint. These two contracts both provided opportunities to introduce a new technique to this French overseas Department – cold micro asphalt concrete surfacing. In September, the teams were supplied with a Breining machine specifically to apply 150,000 square meters of cold micro asphalt concrete surfacing.

Through its innovation and speed of application, the process has aroused a great deal of interest on job sites. The rapid homogenization of the binder is one of the original aspects of the process which makes it highly suitable for use on the Guadeloupe road network. Two Colmat gradings were used, which were selected according to the type of road, structure and surface texture required. Looking to the future, engineers are working on broadening the range of formulations with the aim of offering a solution that can withstand the stress of much heavier traffic. They are also working on developing a solution for treating fatigue cracking. Finally, the use of Colclair Colmat has made it possible to produce an attractive final appearance by offering a choice of colors. These innovations should be effective in jump-starting the development of this technique throughout the Caribbean region.
Keeping racing cars on the ground

“The Mulsanne launch pad” is how some drivers describe the huge bump right in the middle of the Hunaudières straight on the Le Mans 24-Hour race circuit. It has proved to be a source of controversy in recent years, because of the danger it represents to the racing cars hurtling along the race track. Not wishing to take the risk of losing the official approval granted by the International Automobile Federation, Le Mans officials decided it was necessary to flatten the bump. Work was performed at the circuit by Sacer Atlantique in the depths of winter, between December 2000 and March 2001. A 750-meter stretch of track was entirely renewed. The company’s teams rectified the longitudinal profile both before and after the bump, which was duly lowered in height by 1.50 meters. The surface therefore took on a much flatter profile, and during the 2001 Le Mans 24-Hours, in spite of the great speeds of the cars, none of them took off into orbit!

Project of the year

The 102-km road between Ouagadougou and Yako, north of the Burkina Faso capital, has been totally rebuilt. The site is the largest Colas project in Burkina Faso this year. It was launched in November 2000, and the road was handed over two months ahead of schedule in September 2001. Works primarily consisted of widening the roadway from 6 meters to 7 meters, including the reinforcement of the shoulders with 50,000 cubic meters of laterite clay to a depth of between 20 cm and 40 cm. 800,000 sq. meters of double surface dressing were applied to the road surface, and 220,000 sq. meters of single surface dressing to the shoulders. Because of this major project, a new quarry had to be opened at Yagma, the first in twenty years. Hunting for a suitable site, defining the operating conditions, performing geotechnical surveys and installing plant were all no easy task, not to mention the transfer of a crusher from the Gabon forest, a journey of several thousand kilometers accomplished by transporter, train, barge and road. The World Bank has already designated the site as a model to make local authorities more aware of environmental protection.
A83 – a project with numerous constraints

After years of being under heavy road traffic, the slow lanes of the A83 motorway between Montaigu and Les Essarts, in the Vendée region of western France, had become dangerously rutted. The lanes, 3.4 meters wide, required reconstructing over a 27-km stretch. To perform this task last spring – in less than a month – Screg Ouest assigned 50 men to the job, 32 of whom were semi-trailer drivers, and employed a large quantity of plant. The work was carried out by two teams. The first, the planing team, included two milling machines to plane 7 cm off the roadway, followed by four vacuum sweepers to ensure the base was clean. The second team applied the bituminous concrete with an integrated spray bar finisher which was preceded by a Franex feeder to ensure a perfectly even surface. The site was difficult to access for semi-trailers, which had to reverse over a distance of three kilometers. Another innovation came in the form of an addition of 25% of planings to the asphalt mix. This was also an opportunity to move ahead of the upcoming legislation on recycling of site waste.

New streets for Gao

Fans of the Paris-Dakar rally are familiar with this stopover. Gao, a small town on the banks of the Niger river 1,200 kilometers from Bamako, had experienced no road works since 1953! Needless to say, the state of the town’s roads left much to be desired! But now they have been renovated, including both drainage and surfacing. There are no crushers in Gao, nor do they have raw materials of sufficiently high quality. The aggregates that were finally used were found at the bottom of a dried-up river bed. A team of eighty workers sifted them by hand and then made the 83,000 concrete blocks required for the construction of the gutters, curbs and other elements in reinforced concrete. It is not actually possible to work through the day in Gao because the temperature is capable of rising to something over 45° C in the shade. The teams worked from 3 o’clock in the afternoon to 9 o’clock in the morning. The heat also makes it difficult to mix the aggregates and bitumen. The site, which was carried out under extreme climatic conditions, was good training for the team which now has to go to the other end of the country to build another road – out in the midday sun!
Soaring over the town of Hayange at a height of 40 meters, the A30 motorway viaduct was posing a threat to the local residents. Cracks had appeared in the concrete along the underside of the deck of the 425-meter structure built thirty years ago, caused by the sharp temperature variations of the local climate. The viaduct refurbishment contract was awarded to Spac’s Civil Engineering Division.

Work involved replacing sections of the reinforcements embedded in the underside of the deck with new lengths, applying anticorrosion treatment to the rest of the metalwork and injecting fresh concrete into the cracks. To carry out this delicate series of operations, a team of six skilled Spac craftsmen worked on two cradles positioned under the deck on articulated supports mounted on a truck positioned underneath the viaduct. The cradles were fitted with netting, not just to protect the craftsmen but also to prevent falling debris from landing on the roofs of neighboring houses.

The site also involved removal of the protective barriers along the entire length of the structure comprising metal guard rails and two-meter high fencing, and their replacement by BN4 barriers that conform to current standards. To ensure the work was carried out in complete safety, the Spac team devised a method of lateral access in the form of a mobile cage. Before being used, this piece of equipment was approved by the CRAM and Socotec organizations.
The new demolition debris recycling facility at Amiens in northern France has got off to a promising start. Colas Nord-Picardie is already one step ahead of legislation that will become applicable on July 1, 2002, prohibiting the deposit of any form of waste other than final waste in landfills. The Picardy site brings four dedicated waste recycling plants together on a single site. The first unit, Valormat Industrie, can treat 100,000 metric tons of inert demolition debris yearly. The cut material is transformed into backfill and other waste such as concrete and asphalt mix top layers are recycled as 0/6, 0/20 or 0/40 road construction materials. This summer, Mobile, the name of the second Ecoballast unit, processed used ballast from the Paris-Lille railway line for Réseau Ferré de France, 30% of which can be reused on the track. The debris was brought to the Saint-Sauveur plant, now permanently reinstalled on the new site, to be recycled as coarse gravel. Waste can be dumped free of charge so the future is as attractive for Colas as it is for the other surrounding industries.

The only restriction is that waste must be inert. This means that materials such as wood, plaster and plastic cannot be accepted. The Colas Group is highly involved in this sector as it consumes a good half of all the recycled products. This new source of supply will allow networks to be built more economically, and in an environmentally friendly manner.
The invisible job site
In the Avenue de l'Europe in Boulogne-Billancourt, a stone's throw from the Group's corporate headquarters, Surbeco is carrying out a remote-controlled drilling operation. This new Group subsidiary, formerly part of the Desquenne et Giral group, specializes in laying underground pipes. This project involves two 250-millimeter sleeves designed to house optical fiber cables over a 120-meter trench-free section. This was possible thanks to an American Vermeer drilling machine equipped with caterpillar tracks and a system of automatic drilling rods, which drill beneath the road surface. Not only does this system avoid traffic disruption, it also prevents damage to small squares or banks of flowers. Each sleeve took only four or five days of drilling to lay, while an equivalent project with open trenches would have taken more than three weeks, including returning the site to its normal state.

Axter on the slippery slopes
Inhabitants of the German town of Neuss can ski all year long thanks to the world's largest building devoted to skiing. In this gigantic facility, there is an indoor slope, 300 meters long and 60 meters wide, equipped with ten snow-cannons and even a chair lift. Since the slope needs to be perfectly waterproof, it required 18,000 square meters of high-performance waterproofing membrane, supplied by Axter, the industrial division of Smac Acieroid. Axtertop Gold®, 5.2 millimeters thick and delivered in 5 m x 1 m rolls, consists of an elastomer binder and a polyester reinforcement, with a protective coat of slate flakes. The screed also consists of an insulating layer which incorporates a cooling system consisting of 100 kilometers of pipes designed to maintain ground temperature at -4°C Celsius. Axter was also responsible for monitoring the project and advising the main contractor.

See you down at the bottom!
A new road leads to Burkina Faso

126 kilometers of new road in the west of Benin at the border with Togo will soon link Togo to Burkina Faso. Between May 2000 and July 2002, the site, worth more than $21 million, will entail over two years of work. Following the construction of various crossing structures (bridges, single, double and triple culverts), the excavation work has now been carried out over the major part of the route and the roadways laid over half the distance. The surface, a triple-layer dressing, currently covers a third of the roadway. The site will require a total of 1,300,000 cu. meters of earthworks, 150,000 metric tons of crushed rock, 1,400,000 cubic meters of surface dressing and 12,000 cubic meters of concrete for the crossing and drainage structures, 30 percent of which are prefabricated. The team is on a scale comparable to the site. 700 people are working with an equipment fleet including 170 machines and trucks.

Wegebo gets very concrete

The A12, one of the two motorways linking Brussels to Antwerp, was badly in need of face-lift. Wegebo, a subsidiary of Screg Belgium, was awarded the contract for refurbishment of a stretch of 3,200 meters over a total width of 2 x 13 meters and a surface of over 80,000 sq. meters. The project comprises firstly, the demolition of the existing concrete surface and the laying of 4 cm of asphalt mix over the existing foundation of lean concrete, the laying of 22 cm of exposed continuously reinforced concrete pavement and the installation of New Jersey-type lane separators. To lay the concrete, Wegebo used its brand new slipform paver, a machine that can simultaneously cover up to 11 meters in width. Each side of the motorway was carried out in two strips of 8.5 meters and 4.5 meters in width. Supplies of concrete to the machine come from a mobile concrete plant with a capacity of 120 metric tons per hour.
Two new processes are introduced in Poznan

The former capital of Poland, the city of Poznan grew up around its universities and its crafts. With 600,000 inhabitants and an international trade center, Poznan attracts large numbers of foreign investors, justifying the scale of the project undertaken to ease motorway traffic congestion in the outskirts of the city. Financed partly by Poland’s General Directorate of Roads and the European Bank for Reconstruction and Development, the project consists of building a 13-kilometer stretch of four-lane road to the south of the city, along with thirteen engineering structures. Strada, the Group’s Polish subsidiary, has won contracts for surfacing eleven of them. The company is applying a road base course in cement-treated sand, a road base layer in as-dug gravel and 30,000 metric tons of asphalt mix. Strada is also laying 8,000 meters of curbs and sidewalks.

For this project, Strada proposed a technology unique to the Colas Group based on two composite processes, one using Saflex, Betoflex and Ruflex for the structures, the other using Colbase and Ruflex for the access roads. These processes did not only convince the investor, but also other operators along with the road and scientific communities in Poland, thanks to the time savings and financial advantages.

The success of the first trial of this approach in Poland could well lead to other contracts being awarded.
P. MAILLOT: 5MN
P. CHAPELLE: 21MN
Try to imagine a highway with no road markings, no traffic signs, no guardrails, or a town with no traffic lights. To prevent such a nightmare, the Colas subsidiary Somaro produces and installs road equipment. Its three divisions – Industries, Enterprises, and Maintenance and Services – cover all aspects of the field, from A to Z.
Somaro’s Industries division supplies every conceivable type of signs and signals for roads. The division is composed of six subsidiaries (SES, ADEM, SIAT, Boscher Gravure and Porte in France and FDS in the United States) and employs some 750 people. It designs, manufactures, markets and installs a wide range of products, including direction panels, police and road works signs for roads and motorways, tourist information signs in pale brown and the distinctive variable message signs, such as those that feed drivers real-time information on traffic conditions on the Paris beltway. In addition, through SIAT, the division proposes a comprehensive traffic management offer: data collection stations, automatic incident detection systems and signal command-control systems.

“For these very complex systems, with cameras, data collection facilities, expert systems and, of course, variable message panels, France has always been one of the international trailblazers,” says Lionel Couche, head of Somaro Industries. “As soon as a major city anywhere in the world decides to review its traffic management systems, they ask us to bid. We have sold equipment on a turnkey basis in Malaysia, Russia, Australia and China, and most of all in the United States through our American subsidiary.” These contracts constitute the bulk of the 9% of Somaro Industries revenues generated through export. As far as fixed signs and signals are concerned, the Group is number 1 in France, thanks to SES and ADEM.

The entire production chain

When the work of building a road or a motorway is complete, Somaro Industries is still there. At the request of local authorities, the division manufactures customized panels that harmonize perfectly with any urban or natural environment. In towns and cities, it installs ranges of urban furniture (such as benches, barriers, cycle racks and passenger shelters), electronic display panels (showing the times of the next buses, for instance), and signs for shops, banks and insurance agencies (a contract for the MMA insurance company saw Porte producing no fewer than 17,000 signs of three colored letters!). Particularly sophisticated signs to be seen in Paris at the Louvre museum and Christie’s and in Brest at the Océanopolis marinelife center are the work of Boscher Gravure.

Somaro’s Enterprises division, which employs 640 people, is responsible for a number of businesses. Road safety, first and foremost. With four contracting agencies spread around France and around thirty decentralized work centers, Somaro Entreprises is the leader in France for installing safety...
Every sector of road equipment

Between them, the three divisions of Somaro are responsible for the entire chain needed to provide a road with complete equipment, designing it, manufacturing it in the factory, installing it on sites and maintaining it when it is in operation. The company increasingly takes advantage of the complementarity of its activities. It intends to further develop its services and to work more closely with the rest of the Colas Group, to benefit from its know-how both in France and on international markets. “If we can capitalize fully on synergies with Colas, we have an extraordinary capacity to respond to growing demand,” comments Thierry Caussemille.

“Tomorrow, our customers will come to us and say, ‘We want you to supply us with a completely finished road in such and such a place, and then maintain it so it is always in good condition and always complies with standards.’”

Variable message panels with electronic display are manufactured at the Somaro Industries division plant in Tours, central France.
If there were any doubt that Group synergy is a success factor for Somaro on export markets, proof came in Britain in February 2001, when Colas UK and Somaro subsidiary SES successfully bid to supply and install 83 variable message panels on the M25 (the London orbital motorway). The contract, which is worth almost £4 million, was awarded by the Highways Agency. The project will be led by Colas UK, which will be responsible for installing the panels, while SES will be the subcontractor supplying the panel that will display varying speed limits.

“The Highways Agency decided to install panels of this kind with the aim of increasing the flow of vehicles by modulating their speed on one of the most congested sections of motorway in Europe,” explains Aly Adham, sales manager of SES. “The system will also help to improve the safety of road users by modifying the speed limit according to the density of the traffic.”

The entire project is scheduled to take 43 weeks, and the first batch of panels were installed in September 2001. “This is a particularly important project for Colas UK and SES,” continues Aly Adham. “If it proves successful, it could encourage the Highways Agency to install panels of this kind on other motorways in the United Kingdom. The British government has earmarked a budget of £1.2 billion (more than $1.8 billion) over the next ten years in view of optimizing the national roads network.”

Original equipment

Although the division does not actually manufacture the barriers itself, its subsidiary Euro-Equipement designs and produces special equipment. “We recently developed a swing barrier for median strips which will be very useful for divided highways,” says Thierry Caussemille, head of the Enterprises division. “It’s easy to handle, and will make it possible to open up a median strip and so allow easier access for emergency vehicles in the event of
Installing safety barriers in metal, wood and concrete on roads is the stock in trade of Somaro Entreprises. A direct contact with the customer meant that we could pay a great deal of attention to their needs, and were able to design a new piece of equipment while never losing sight of the upstream problems of installation. Another innovation marketed by Somaro Entreprises is Somex, manufactured by Euro-Equipement, a frontal collision absorber that is installed at the extreme end of a metal guardrail.

But let us return to the newly built road, still unspoiled by the merest white line. Vialis, a new subsidiary which combines the road marking businesses of Somaro Entreprises, contracts road marking operations throughout France (painting, cold and hot surfacings). The company’s principal supplier is Indasco… itself another subsidiary of the division, which also produces decorative surfacing for colored sidewalks, public squares, children’s playgrounds, etc. It also manufactures innovative prefabricated resin/gravel blocks that imitate paving stones, that are bonded directly to the asphalt. “We want to develop our research in road marking,” continues Thierry Caussemille. “The coming years will see the development of solvent-free road paints to satisfy environmental demands.”
We have therefore set up a research team within the Colas central research laboratory so that we can benefit from all the Group’s potential in grey matter!"

**A wide range of products**

Indasco also manufactures mastic asphalt-based waterproofing products, supplied principally to Smac Acieroid. Through a network of agencies and sectors, Somaro Entreprises also is active in the repair and maintenance of engineering structures. And in a spirit of synergy with the Industries division, the Enterprises division is responsible for installing signposts.

Another subsidiary of the Enterprises division, BRS, specialized in concrete applications, is also involved in the maintenance of engineering structures and, more generally, in other areas of civil engineering in which it has built up a solid experience of complex projects (such as shoring up cliffs and bridges). It also enjoys recognized expertise in extruded concrete, with such references as Nice airport, numerous grooved gutters and complex drainage structures installed alongside motorways or under tunnels like Mont Blanc. BRS has also developed a specialty in noise protection barriers, installed on the A10 motorway and the RN10 at Angoulême, a fast-growing market in which the subsidiary is strongly placed thanks to the Somaphone process, which combines noise barriers with concrete safety barriers. The Enterprises Division also incorporates two other entities: Saba, which operates in the extruded concrete sector (barriers, roadways, drainage structures), and Sobes, which specializes in renting and installing site protection barriers.

**Safety for drivers**

Local authorities, motorway operators and the Colas Group can permanently rely on the 160 employees of Somaro’s Maintenance and Services division to satisfy their needs. Through EL-SI and Sopac, its two subsidiaries specializing in electronics and electrical engineering, the division plays a large part in efforts to improve road safety through a range of electronic signalling equipment, such as illuminated lane-change arrows, mobile variable message signs, illuminated triangles, etc. EL-SI also manufactures fixed traffic lights for towns and cities. Drivers in the urban communities of Strasbourg, Bordeaux and Dunkerque can thank EL-SI for their round-the-clock tranquility. "In a manner of speaking, we are a two-headed company," points out Philippe Royer, head of the Maintenance and Services division. "It is fifty percent an industrial enterprise and fifty percent a service provider. It manufactures traffic lights, installs them and performs maintenance operations on a call-out basis, both day and night. Through Sopac, we manage roughly 4,000 intersections, including 2,500 in the Greater Paris region and 600 in the Lyon region." Managing the traffic lights at an intersection means more than just changing a couple of light bulbs from time to time, of course! An intersection consists not only of traffic lights, but also of a computerized control cabinet which regulates the signals according to traffic flow. On permanent call, EL-SI and Sopac teams respond to breakdowns on an emergency basis. In twenty years, for instance, the call-out time has never been in excess of one hour for any one of 1,000 intersections in the Bordeaux conurbation – which is the maximum period as stipulated in the company’s contract.

Another wing of EL-SI is responsible for installing 5,000 "loops" (i.e. cables unrolled below the road surface) every year, as well as the data collection facilities to which they are hooked up. The subsidiary also carries out
customers of the IDF-Nord-Picardie regional agency of Somaro Enterprises were surprised when they opened their New Year card for 2001 from the company. In the form of an “explosive” brochure, they were informed of new services, called “S line”. S for synergy, safety, services, signs, signals… and Somaro!

The “S line” forms part of the subsidiary’s culture of service. Ever since September 1999, in fact, in all cases of contracts involving a call-out maintenance service, the agency’s customers have been able to call a special number available on a 24/7 basis for the emergency repair of a safety barrier damaged in an accident. An operator distributes the call to Somaro’s duty teams to ensure the swiftest response possible. This tool is much appreciated by customers, because it denotes a company that is both responsive and near at hand. It is due to be deployed in the three other Somaro Enterprises regional agencies shortly.

numerous civil engineering projects, including the installation of electronic equipment (e.g. variable message displays and warning panels), often working on behalf of SES.

Once a road has been constructed by Colas, a whole range of Somaro companies follows behind, equipping, signaling, dressing and maintaining ensuring that many thousands of motorists will be able to drive on it in tranquility and in safety.
On the road to Morocco

The Group’s Moroccan subsidiaries, Grands Travaux Routiers (GTR) and La Route Marocaine (LRM), have taken on substantial challenges by carrying out the two largest work projects now underway in the country: the Casablanca highway and next-to-last section of the North Sidi El Yamani-Asilah highway.

As fate would have it, both of the bids fell within a two-month period. The first was for the Casablanca bypass highway: 27.4 km of standard highway sections and 13.8 km of access roads and ramps linking Mohammedia with the Casablanca-Settat highway. The GTR-LRM-SGTM grouping was in a good position to obtain the contract. As it actually owns three large quarries (Oued Cherrat, Bouskoura and Ben Abid) located in the immediate vicinity of the work site, the group did not have any problem to obtain aggregates. The climatic conditions in the region also tend to make the work easier.

A FIRST IN AFRICA

GTR’s project is both ambitious and audacious, and combines the use of computerized equipment with the very latest in technical innovations. The profiler is controlled by a DPS system, the grader and the bulldozer by GPS. These procedures, which until now have never before been used in Africa, will also be used for all of the pavement courses. As could be expected, it took the machine operators a little while to get used to the fact that they no longer had to touch the...
levers, but they quickly made the adjustment to these new technologies.

**AN EXAMPLE OF SYNERGY**

Two months later, the GTR group and Colas won the North highway tender. For GTR, this was a real challenge. Handling two projects this large simultaneously requires excellent organization, both in terms of personnel and equipment. There were three imperatives: doubling the management staff, purchasing equipment (excavators and dump trucks) and, above all, organizing total synergy between the two work sites. Personnel and machines travel regularly from North to South, and vice versa. Computer equipment is also used for both sites. For Jean-Claude Rialland, manager of the north highway: “We are juggling two projects. It’s a colossal task, a real wager for the future. We are aiming for top results so that we can secure more contracts in Morocco which has substantial needs in terms of road infrastructure.”

**A GIGANTIC EARTHWORKS PROJECT IN THE NORTH**

The north work project is more complex than it first appears due to this region’s poor weather conditions in winter and also due to the extent of the work to be done. The first difficulties appeared when it was time to obtain the right of way. When the contract was signed in July 2000, the plots of land were not yet free so the beginning of the work, planned for November 2000, had to be pushed back to March 2001. Zoltan Janos, the site director, is ready and prepared to deal with all of the obstacles which he encounters. His high-level sports experience (long-distance running) has helped...
Mustapha Mouhssine, site supervisor on the north highway

Mustapha has been working on GTR’s Moroccan projects since 1979. He lives in Agadir, where he has worked as a mechanic, machine operator, foreman, site foreman, and project manager before becoming a site supervisor. He doesn’t see his family very often because the work sites are usually far from his home. “Fortunately, there is the telephone. I am 860 km from home, so the bills are high…but I like the atmosphere and life at the site… I have known all of my workers for a long time: where there is too much noise, we communicate with hand signals.” Mustapha is in charge of the most difficult part of the earthworks, between embankment 7 and embankment 8: 1.5 km, with 1,500,000 cubic meters of excavation, much of which must be dumped because it is not to standard for use in embankments.

The difficulties due to the poor weather conditions do not spoil Mustapha’s mood: “This is an exceptional project, the number of machines is impressive, it’s very spectacular. The only thing I’m sad about is that we can’t reuse the excavated materials, which are bad quality.” Mustapha is very proud of his five children. On vacation he takes them around Morocco and shows them the roads which he helped to build: “They know the names of all the machines. Even my youngest knows the difference between a scraper and a dump truck.”
taking into account the 36 bridges along the path of the road. The fact that the right of way is very narrow makes driving at the site rather difficult. The differences in the quality of aggregates also complicate their use. 1,500,000 cubic meters of R3 class aggregate which is not to standard will be stored at a landfill.

**WATER SUPPLIES: A NECESSITY IN THE SOUTH**

While the Casablanca highway project may seem to have fewer constraints, it is still quite complex. Even though it is located in an urban area where the earthworks to be done are considerable (2,800,000 cubic meters of cut, 2,100,000 cubic meters of fill), 100% of the materials can be reused. One of the main concerns of the GTR team is water. "We drill every 3 km to find the water table and then we wet the fill so that it complies with M or S norms," explains Claude Duperron, Head of the Pavement and Sewerage/Drainage Department. In addition to the water concerns, the length of the road complicates the on-site communication and the movement of machines. That is why all of the work site managers and truck drivers have VHF. These challenges and complications have in no way interfered with the work. The earthworks for the Casablanca highway were completed eight
months ahead of schedule, and the sub-base layers are already well underway.

**TOP QUALITY PERSONNEL**

The quality work of the people involved in these two highway construction projects is of course one of the keys to their success. Jean-François Bodennec, Site Manager at the main site on the Sidi El Yamani-Asilah highway, who has been working abroad since 1980, expresses his admiration: *"We work a lot at these sites, it’s hard work, but we are surrounded by great people. We are a team in which human contacts take priority."* In the south, Claude Duperron is in full agreement: *"We have excellent workers and exceptional machine operators."* Camps have been built for each site’s team: 60 GTR workers live in Asilah and 120 in Casablanca. In terms of safety, the work sites are strictly monitored by the managers, who are present at all times and for all work. Each camp has an infirmary with first aid staff and equipment. Fortunately, they have not seen much use so far thanks to the alertness of all employees. The success of these large projects, real challenges for GTR, depends on the capacity of all personnel to work on both projects, anticipating the work to be done to facilitate exchange of information between the north and the south. The work is going well. The deadlines are being met on the Asilah-Sidi El Yamani highway and as much as twelve kilometers of the Casablanca highway should be finished eight months ahead of schedule.
Cesty Nitra faces the challenge of the future.

Cesty Nitra, the Slovak subsidiary, joined the Colas Group in 2000 bursting with ambition. Motorways, bridges, city streets – all the roads in Slovakia are scheduled to be rebuilt over the next few years. It will require the best resources possible to meet the challenge.
The July sun beats down relentlessly. In the stifling heat, not a breath of wind stirs. Compactors make the earth vibrate. You can barely make yourself heard. We are in Nitra, the third largest town in Slovakia, where Cesty Nitra SA is currently rebuilding a street near the town center. Temperatures are extremely high this summer – if you are lucky, you can stay in the shade but working on a civil engineering site does not allow for that. "Quite honestly, the heat scarcely bothers us," smiles Ján Pánik, the site foreman in Nitra, "but the rain we have had here during the last few days has held us up." The site will be delivered on schedule, however. The reconstruction of the 450-meter stretch, begun on April 18, will be finished by the end of August.

Methodology and order
"The road under reconstruction was in a very bad state and the roadway had collapsed. During excavation we came across clay soil and underneath, a porous water table. We are now consolidating the soil to a depth of 45 cm. After removing what remains of the surfacing we started construction on two 200-meter drainage ditches. We then had to remove around 1,200 cubic meters of soil. The trenches and the manholes were filled with gravel. We carried out all the work, except for moving a high-voltage power line," explains Ján Pánik.

Cesty Nitra is one of the most recent newcomers to the Colas Group, which it joined in June 2000. The company has three profit centers, one in Trnava, one in Trencin and the last in Nitra, where the management headquarters are located. Today, the company employs five hundred people, but in summer the workforce is augmented by dozens of temporary workers. The company’s core businesses are the construction of roads and motorways, surface treatments, bridges and foundation work. It also carries out the moving of water and gas pipes and mains, drains, public lighting and low-voltage power lines.

The company history goes back to 1953 when Nitra, a publicly owned road construction company, was founded. At the time, Slovakia (then part of Czechoslovakia) was in need of roads. It was actually during the period 1985 to 1989, under the Czech government’s road paving program, that the company enjoyed the strongest growth. During this period it applied 700,000 metric tons of asphalt mix and had more than 2,000 employees. After the fall of the Socialist regime in November 1989, Slovakia started on the path of economic transformation. State-owned companies were gradually privatized. Cestné Stavby Nitra became a public limited company in 1995 and changed its name, becoming Cesty Nitra. In October 1996, the Slovak firm Ropspol became its majority shareholder. Then in May 2000, Cesty Nitra was purchased by Colas.

Did the change of ownership bring about much internal upheaval? "As far as our core businesses were concerned, nothing changed. Colas did not insist on us introducing any changes at all, not even in terms of people management," replies Stefan Kiss, the company’s managing director. "However, a certain..."
form of economic planning was reestablished, which is a very good thing. Under the Socialist regime, we had centralized planning, which did not reflect reality and which was considered by the population as a pure formality. In fact the term ‘plan’ became discredited to such an extent that even ten years after the fall of the regime, it was still impossible to use the word. This was a legacy of socialism. But without serious forward planning, things don’t advance. With Colas, we found a new form of planning for the four years ahead. Among other things, we have adopted the charter of management principles drawn up by Colas.”

**Quest for quality**

One of Cesty Nitra’s objectives is to obtain State accreditation from the Slovak government for its central laboratory, already certified ISO 9002. The quality manual, drawn up at the end of 2000, was handed to the national accreditation department in April 2001 in anticipation of the first audit by the experts. There are specialists working in the Nitra laboratory, along with a metrologist who also carries out soil tests. The Trnava and Trencin profit centers both have their own laboratories that carry out on-site tests for the mixing plants during the mix cycles.

“We are also working on recycling,” explains Juraj Druga, head of the Nitra central laboratory. “I began my professional career working at the Cesty Nitra laboratory as soon as I finished my studies in applied geology in 1969 and as you can see, thirty-two years later I’m still here!” says Juraj Druga with a grin. “The field of laboratory testing is very broad, so I have had to continuously update my knowledge by following post-graduate courses or work-related training programs.” In this job, every site is different and requires a specific technological process that is tailor-made. As a result there is no place for routine and the best solutions that will enable the specified techniques to be deployed have to be researched every time. “Thanks to our insistence on achieving optimized solutions, we are in competition with far bigger companies, particularly on the motorway market. Every order is a new challenge and for us this means it is an opportunity to develop our own ideas,” explains Juraj, who admits to being a bachelor because he has been too taken up with his work to have the time “to find the ideal woman”. Oh well, it’s never too late!
laboratory. “For example, we collaborated with a company that recycles used tires to re incorporate them, in the form of rubber crumb, into the wearing course mix, which helps to stabilize it and reduce rolling noise. Working in collaboration with the Nitra research institute, we have also developed a waste treatment technology based on discarded plastic bags made of PVC, which we are able to use instead of adding imported stabilizing ingredients. At the moment I am working on the possibility of a very interesting collaboration with Group companies in the area of bituminous mixes. On some of our smaller projects, we often require a small quantity of modified bitumen, which we are not able to obtain from our usual supplier, which can only deliver in large quantities. Importing bitumen and transforming it ‘in-house’ would be a good solution for us.”

A multitude of projects
Cesty Nitra produces between 60% and 70% of its annual output to fill State orders. Large-scale projects are few and far between for the time being, so the company is concentrating on maintenance and road surfacing. The completion of the Soporna-Bab motorway with an extension planned to Trnava, Nitra and Banska Bystrica, represents 51 small job sites. “In addition to the construction of roadways over a length of 9.5 kilometers, we have also
carried out six bridges, around 500,000 cubic meters of backfill, retention ponds, and a noise barrier,” spells out Ján Hreha, site supervisor. “There was also nine kilometers of secondary roads and by passes to be constructed. This motorway is going to become a toll road, so the company is building a parallel secondary road over a 6-kilometer length. Completion of this stretch of motorway, started in 1997, is scheduled for the end of summer 2001.”

**Investments and high ambitions**

Some kilometers further on, the reconstruction of the Hlohovec crossroads began on April 15, 2001 and will be completed in the fall. “A fast-track project performed under contra-flow,” says site foreman Peter Kovac. “The stretches over the caves took a long time, though, as we discovered splendid old vaults.”

“We make no compromises with quality,” says managing director Stefan Kiss. “For many years we have been one of the top ten Slovak construction companies. Along with investments in site machines, we are also thinking of purchasing a quarry and a ballast production facility before the end of the year. The entire Slovak road network will soon be up for reconstruction and we must be ready to face the challenge. Our integration in the Colas Group should help us to progress along these lines.”

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**PORTRAIT**

**Ján Hreha,** site supervisor

“**T**his job is what I have always wanted to do, all my life,” states Ján Hreha proudly. He has been working at Cesty Nitra since he graduated from college. “I was always attracted by the construction industry, and that governed my choice of school. I went on to university where I studied in the road construction section of the Civil Engineering Department.” After graduation, Ján entered Cesty Nitra as site foreman. His first assignment was a site for the Metro cash-and-carry store, where he worked on building roadways, a car park and a drainage network. “Last year, I was sent off to study road tunnels for three semesters. I shall complete my training in the autumn,” he adds. The topic of Ján’s thesis, chosen by the company, involves the problem of using concrete or asphalt pavement in tunnels. Ján wanted to continue his training for an additional two semesters as he felt it gave him a real edge. “This year, we took a field trip to Semmering, where they are boring three double tunnels simultaneously. We also visited the new metro stations in Vienna. Other field-trips are going to involve tunnels already in operation and safety issues.”

How does he foresee his future with the company? “I like this work and the company has now taken me further than I ever expected. I will be happy as long as there is always something to build,” he concludes with a smile.
A real priority in the field

“Safety is a recurring, priority topic within the Group to which we devote much time and energy," says Denis Pagot, Health, Safety and Environment Manager (HSE) within the Group’s Human Resources Department. Meetings are held on this topic every year. They are a good illustration of the Group’s desire to tackle the problem and an indication of the general increase in awareness levels observed in all of its branches. This policy and the awareness activities which accompanied it helped to significantly decrease the number of accidents and their severity rate.

Nine countries – compared to five last year – and three continents were represented at Lewes on June 19 and 20, at the Group Safety Meetings. "These meetings are becoming more and more international," Denis Pagot observes. Six young people were among the 32 safety officers who had come to the meetings. These young people wanted to learn from the know-how and experiences of their older colleagues. From one branch to another, from agency to agency, internal competitions, safety days and safety time, training programs and campaigns of all sorts are some of the means used to prevent accidents and improve safety. These initiatives are supported and encouraged by a series of communication and information actions directed by the head office in Boulogne-Billancourt. Within this system, the HSE Intranet site will be called on to play a key role. Everyone will be able to go on-line to consult legal and regulatory advice, news from the subsidiaries or a series of books, press articles and products related to prevention... Very soon they will be able to consult the entire HSE manual – now available only in a paper version – which involved two years of work. "We mustn’t lower our guard, there is always something to be done," adds Denis Pagot. "In the 1950’s, we thought that accidents were inevitable, they were the price you had to pay. Nowadays, safety is a moral, legal and economic requirement. Everyone must understand that safety brings benefits far beyond its cost. We must not forget that one single work accident could cost the annual profit of a subsidiary..."
**Subsidiary safety officers: a privileged source of advice**

They are involved in developing and applying the safety policy set by management. This policy is part of a general Group orientation (such as the increasing and generalized efforts to improve road safety, stricter occupational health measures at work sites, etc.). They have multiple roles: advising and leadership (distribution of regulatory texts, analysis of serious work accidents, running safety meetings, organization of competitions, etc.), management of contribution rates, statistics, relations with outside organizations (CPAM, OPPBTP, etc.). There is no specific background required in order to become a safety officer; they may come from operations or have university training. What counts is that they have good communications skills, a real concern for improvement of accident prevention and a good knowledge of the business.

**Smac Acieroid gears up**

Smac Acieroid is increasing its efforts to deal with the special fire and fall risks which its waterproofing and construction activity involves. “We are focusing on prevention and safety,” explains Patrick Fourier, Director of Human Resources. “There is a strong commitment from Robert Lefevre, the President of the subsidiary, and the Unit Managers, who play a primary role in increasing safety.” Each unit has its Safety Officer, with one “super” Safety Officer per region. There is a challenge on two levels: national (with competition between Smac’s three regions) and regional, mobilizing the agencies with a national competition involving posters drawn by employees and their families.

“The topics are chosen by Management, then the drawings come from the participant’s imagination,” says Patrick Fourier. The winning poster is then displayed at all of the units. Other specific actions are being taken. For example, a national health, safety and work conditions committee carries out an overview of the work done by the committees of the various establishments. The prevention policy is defined from this overview. “This initiative goes beyond the regulatory texts,” Patrick Fourier explains.

In addition to the quarterly meetings and the training of young people, new arrivals are immediately made aware of prevention efforts. They receive a safety kit containing safety instructions and brochures. The objective is that safety should become a reflex. This reflex comes upstream of any analysis of potential risks with the start of a project. In the event of an accident, a report is sent to the President, who then organizes a meeting for all personnel. Its purpose is to analyze the reasons for the accident and to take all the possible steps to avoid another one. In terms of safety, we can never do too much.

**SAFETY TROPHY**

**Pivert trophy goes to Sully-Miller**

The Pivert crystal went to California where it was presented to Randy Franklin, Safety Manager at Sully-Miller, by Alain Dupont on June 9. The Group’s international safety trophy was given to the American subsidiary in recognition of the fact that it had no accidents requiring sick leave during the year 2000. “We are always seeking to improve safety,” Randy Franklin explains. “Our objective is 2 million hours of work without a single accident requiring sick leave. This helps to create a ‘zero accident’ corporate culture for optimal work conditions.”

**Directions**

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**ROUTES** number 11
A very positive record with renewal of the inter-ministerial agreement

On April 23, the Group renewed the road safety agreement signed with the Government in 1997. The initial objective, a 25% reduction in traffic accidents over three years, was easily reached, with the number of accidents decreasing by more than 30%. This very positive result reflects the efforts made by all of the subsidiaries in mainland France. The broad program launched by the Group, including road safety awareness for all personnel, the creation of a Challenge, increased training in the field dispensed by more than 300 road safety instructors, involvement at all hierarchical levels and the monitoring of statistics, has already produced positive results. There are still significant differences between subsidiaries however, with the ratio of number of accidents/number of vehicles ranging from 0.09 for the better subsidiary to 0.28 for the subsidiary in last place.

The objective for the coming three years for an overall decrease in accidents of 5% is in line with this trend but also seeks to reduce the gap between the various subsidiaries, especially those which recently joined the Colas group. Beyond these numbers, as Alain Dupont mentioned during the signing of the renewed agreement in the presence of Isabelle Massin, inter-ministerial delegate for road safety, “road safety is a fundamental value and an essential goal for Colas. It means protecting human life and optimizing work quality.” The experience acquired in France in this area will progressively be extended to foreign subsidiaries, taking local constraints into account: the leader among the subsidiaries is Colas UK, which has already begun its awareness program.

The Road Safety Challenge
On March 9, Screg Ouest was declared the winner of the 2000 Road Safety Challenge, followed by Somaro and Colas Rhône-Alpes. This award is a wonderful recognition of the quality of the work done by the personnel in the field, in all of the units, to reduce the number of accidents. Prevention is an area in which everyone has an active and vital role to play. This includes all employees, from subsidiary directors, to road safety instructors and agency managers. “The key is to make road safety reflexes part of the everyday behavior; 80% of accidents are still due to operator carelessness,” says Bruno Chambon, President of Screg Sud-Est. For Alain Paviet, agency manager in Annecy, “awareness of driving risks is now well-established. We have increased this awareness throughout all the units by making sure that vehicles are in good condition, designating specific drivers for each vehicle, training all personnel…the results are already in and the number of accidents is decreasing steadily
and on a regular basis. The key factor is to follow the basic and logical rules of good driving.” In this area, the road safety instructors, such as Claude Ferrier in Grenoble, play a determining role. They provide half-day training programs to teach people the essential know-how to ‘drive even better’. “Working in small groups, initially we analyze accident statistics to determine the main accident causes, before covering in detail the eleven basic rules of safe driving (vision, space, vehicle control, physical condition, following traffic laws, etc.). We then look at the practical cases. The training ends with another part of the program, which involves learning how to draw up and complete accident reports. Drivers really do seem to enjoy these half-day programs because they learn in a pleasant environment.” The same instructors also cover post-accident situations and – in the second part of the program – carry out driving audits in real situations. These audits involve all employees who may be driving within the subsidiaries. Road safety improvement involves increased awareness, training and action for all.

Who are the road safety instructors?
More than 300 employees were chosen to be the Group’s road safety program’s representatives in the field and to train employees in safe driving. The road safety instructors are selected for their awareness of road safety and also their teaching skills, but they may have very different backgrounds as far as qualifications are concerned. They all receive AXA Scope training and teach their colleagues the eleven rules of driving with strong support from the unit managers. More than 7,000 drivers have been trained so far. The road safety instructors receive a special quarterly newsletter. They play a decisive role in improving road safety. They will all meet each other – for the first time ever – at a convention to be held next year in Paris.

INNOVATION PRIZE

Colas receives Siemens Innovation Prize

Colas won the Siemens Special Jury Prize for Innovation with white Colasmac, the new generation of asphalt concrete. On July 3, in the presence of representatives from the magazine ‘Le Nouvel Economiste’ and the Secretary of State for Industry, Michel Robin, the President of Siemens France awarded the trophy to Michel Chappat, the Group’s Research and Development Manager. Colasmac has been developed at the central research laboratory and is the generic name of a new family of cold asphalt mixes. These mixes are manufactured at room temperature and then applied in 2 to 7 cm thick layers. The distinctive white color is obtained by adding a white coloring. This new product was universally recognized for its many technical and economic advantages: energy savings, work safety, user safety and comfort, etc.. White Colasmac is a new ally for the environment and for safety.
Building the new silk roads

By forming closer links between 1993 and 2000 with Tasco – Tipco Asphalt Company, the Far East’s leading asphalt and emulsion company - the Colas Group is gradually becoming a key player in this part of the world.

Tipco Group is omnipresent in Thailand and in China. Its activities range from fruit juices, asphalt and asphalt mixes, canned pineapple, milk, packaging, to road and maritime transport, hotels, and environmental consulting to industrialists. This conglomerate is the result of the patient work of a self-made man, Prasit Supsakorn, a truck transporter and then founder of this conglomerate. During a visit to Paris at the beginning of the 1990’s, he met with the management of Colas, which since the beginning of the 1980’s has been part of the consortium that built Jakarta airport in Indonesia.

It was also at this time that Group Management decided to develop Colas in Asia and to establish rules for this growth: industrial activities and investments through partnerships.

This was the beginning of a long and fruitful cooperation between the two groups. In January 1993, an initial joint-venture, Raycol Asphalt, was launched...
between Colas and the Supsakorn family in Thailand for an emulsion factory in the south of Bangkok.

“At the end of 1992 I was assigned to Bangkok to establish this development policy and to ensure a harmonious launching of Raycol. After this first successful experience, we took a stake in Thai Slurry Seal in 1995 for the production of asphalt mixes and maintenance work, then in 1997 we acquired 50% of Thai Crushing Plant, which now operates two quarries in southern Thailand and on the Gulf of Siam,” explains Jacques Pastor, manager of Colas Asia.

With the Asian economic crisis of 1997, Tasco faced a difficult financial situation and offered Colas 22.7% of its capital. An agreement was signed during the summer of 2000. This capital entry was accompanied by new agreements with Tipco in China. An exchange of good procedures: in 1995, Colas had opened the doors of the Indian market for Tipco. Today, Colas is continuing its expansion in this region of the world: China and Thailand require good-quality asphalt to extend their road and highway networks. “But we are a long way from European consumption ratios,” says Jacques Pastor. “France uses 3.5 million tons of emulsion per year while Thailand uses 700,000 tons, China 5 million, and India only 2.8 million, although these are very large and densely-populated countries.”

Given the number of inhabitants in this area – it is home to half of humanity – which is now enjoying rapid economic growth, it is easy to imagine the potential market. By reinforcing its presence in Asia in its core businesses (bitumen, emulsion, modified bitumen), Colas benefits from the synergies offered by Tipco, such as its fleet of trucks and ships (bitumen transported to China, Indonesia, Vietnam and Cambodia) and its depots.

These advantages could help in regaining lost market shares: in 2000, Tasco held about 70% of the emulsion market in Thailand, versus 90% before the crisis, and roughly 40% of the market for bitumen, versus 70% before the economic crash. The project for construction of a small refinery (25,000 barrels per day) by Thai Bitumen to secure supplies of quality bitumen for the Tipco group could turn out to be a winning bet. Keep your eyes on this project...
Colas is in pole position at the Road World Congress

The Palais des Congrès in Paris was the venue for the world’s leading players in the roads industry from June 11 to 15. The World Road Congress was organized by the IRF (International Road Federation), which is chaired by Alain Le Coroller, Group Marketing manager at Colas.

The prestigious setting of the Grand Amphitheater of the Palais des Congrès in Paris was transformed into a forum for the international road industry, as 2,300 participants came from all around the world to attend the Road World Congress. Working sessions, composed of plenary sessions and workshops, offered those attending the opportunity to consider current and future issues relating to roads.

Both socio-economic and technical themes were covered as a number of topics were debated, including the economic justifications of road investments, the end of automobile pollution, public opinion and the road, along with the car and the town: urban and peri-urban. In addition, two subjects were discussed for the first time in conjunction with other organizations: road safety with PIARC (the World Road Association) and the place and
future of urban road tunnels with PIARC and the International Tunneling Association.

Between sessions, participants were able to stroll around the many displays in the exhibition zone, an ideal setting to meet people and set up professional contacts. All the leading road building companies exhibited in this zone, focusing on promoting their products and technologies.

As one of the leading players in the world road sector, the Colas Group was duty-bound to play a prominent role at the IRF Congress. To begin with, it reserved a prime location for its stand in the exhibition zone, immediately next to the Grand Amphitheater. It was a location that no one could fail to walk past – and notice! The Group had three booths, which were the fruit of a year’s work by a special team tasked with determining both the content and appearance of the booths. They decided on three booths, each with its own personality and purpose.

First of all, the Colas Group’s corporate stand, imposing and sober, was designed like a trade fair booth, welcoming and offering visitors the chance to relax. Permanently connected flat-screen interactive terminals offered visitors a comprehensive view of all the Group’s websites. An image bank projected pictures of Group jobsites all around the world, backing up other communications tools available on the stand. The image bank was particularly remarked on, and it was chosen as a background for a number of filmed interviews during the Congress.

The second booth was devoted to Somaro, the Group’s equipment manufacturer. Luminous panels, one of Somaro’s flagship products, decorated this space, designed as an industrial and high-tech environment.

The products stand, finally, resembled a testing laboratory, with “live” experiments that were highly appreciated by visitors. There were two textured asphalt demonstration strips, a tunnel with light-colored asphalt and sparkling asphalt, and a clean emulsion experiment. Bilingual information panels presented the products of all Group trademarks, organized according to three key themes – environment, safety and maintenance. This was, in fact, the first time that the Group’s three road construction trademarks (Colas, Sacer and Screg) have appeared together on a single stand. This interactive stand proved popular for its technical features as well as its original displays, a sign that today’s “consumer” is eager to witness experiments that illustrate the technical properties of a product or a process.
Two new Group websites

Online with Colas UK
In the foreground, there is a road sign showing two men shoveling sand (recycling is “twice as fast as conventional methods”). In the background, a road seems to rise into infinity, like the logo. This is the welcome screen of the Group’s British subsidiary Colas UK’s new website, www.colas.co.uk. It is a multiple-entry site. The homepage lists the sections of the site to encourage simple and clear navigation. The main sections are industry sectors, case studies, products and services along with performance data, following a concise presentation of Colas. Examples and photos of recent projects illustrate the company’s expertise in roads, ports and airports, lighting and communications, and measures to protect the environment. In addition, the products and services section features a comprehensive table consisting of links to technical pages with detailed notes on the use and specific properties of such processes as Ralumac 2000, Fibredec and Spraygrip. Useful features of the site to make the visitor’s task easier include a search engine and a site index. These tools have been specifically designed to appeal to professionals hunting for solutions during preparation of a project. The multiple-entry principle ensures that users can instantly find the information they’re looking for. Definitely a site to bookmark!

Welcome to Smac Acieroiëd
Smac Acieroiëd has put an attractive and user-friendly new website online. The address: www.smac-acieroid.fr. The homepage makes it clear where the emphasis is to be placed on this site, highlighting the company’s innovations, its workforce and its activities. The “innovations” section, in many ways the showcase of the site, profiles the most innovative of Smac Acieroiëd’s products: Néophalte® Pont, Streetprint® and Isophalt® are described in words and pictures. The company’s two core businesses – mastic asphalt and siding/roofing for buildings are given exhaustive and informative presentations, with examples of projects, site photos and very complete explanatory texts covering possible uses and application techniques. Numerous links take you neatly from activities to related innovations. Two further sections of the website display the locations of Smac Acieroid facilities on a map of France and portray the company’s workers and their skills for those interested in joining the teams. Two aspects that make this a top-quality site are the attractive graphic style and excellent photos.
**INTRANET**

Group portal Sesame is open

The Group’s Intranet portal was launched at headquarters this summer, and is scheduled to open throughout the subsidiaries in mainland France this month. Aply enough, its name is Sesame. The homepage consists of three parts, two common to the whole Group, and the third devoted to each specific subsidiary. There is a flashing information strap (“front page”), updated as events occur in the life of the Group. At the top of the page, Sesame presents general information intended for everyone: news (latest headlines, press reviews, etc.), the employee savings plan, management principles, business principles, links to Group sites, information on the introduction of the euro, the Colas road dictionary, etc. The left-hand area, also accessible to all employees, is devoted to corporate divisions: human resources, communications, accounts and administration, finance, legal affairs, technical and research, IT, equipment and international divisions. These sections offer employees a host of useful documents for day-to-day work: news, reports, technical notes, calendars, publications, etc. Each area also offers links to specific sites. The third part of the homepage is devoted to the subsidiaries. Each of them is free to design its homepage in its own individual style, with its logo and photographs, featuring links to their own sites. Access to this part of the site is restricted to employees of the subsidiary in question. Sesame is a living Intranet site and it has been designed to grow and develop – the content will be updated regularly and additional sections will be introduced.

**COMMUNICATIONS**

A new brochure for the Group

A new brochure presenting the Colas Group has been published in both English and French. Some 1,000 profit centers in over 50 countries, 100,000 projects around the world, 53,000 employees on all five continents, 568 asphalt plants, 488 aggregates and gravel quarries, 169 emulsion plants, 6.7 billion of turnover in 2000… all these figures, and many more, feature prominently in the brochure, which emphasizes that Colas has the whole world as its market, and that roads are at the heart of the Group’s businesses (road building, earthworks, waterproofing, construction, environment and recycling). Graphs and charts illustrate both the growth and the breakdown of revenues by business and by geographic region. The document offers the reader a detailed guided tour of the Colas Group, and it is a vital requisite for every salesperson’s briefcase.
NATIONAL SKILLS COMPETITION

A strong showing for the Colas Group

Between September 13 and 16, the 36th World Skills Competition was held in Seoul, South Korea. These international championships, in which more than 600 young people compete to show their mastery of professional skills, are growing fast. In the early days – the event dates back to 1954 – few trades and countries were involved, but today, some 40 professional sectors are represented (as varied as confectionery, hairdressing and electronics), and just as many countries participate!

Unfortunately, the road building industry was not included in the Seoul competition. According to the rules of the event, a new sector can only be introduced when at least eight countries arrange a national selection process, a number that has never been achieved. France’s public works federation has not given up hope, though. “We must continue with the organization of national heats and do our best to encourage other countries to do so too, so that there can be a road building competition in Dubai in 2003,” says Denis Pagot, from the Human Resources department at Colas head office.

Meanwhile, Colas distinguished itself in the National Finals organized by the French Public Works Federation. Eight regional heats were held, and of the 8 regional winners who gathered for the final in May, four were members of the Colas Group. All of them performed at their best, but one who shone out in particular in the “road and main services” category, included in the event for the first time, was Emmanuel Pupier, a foreman at Perrier TP. Emmanuel was invited to Seoul as a guest. These results constitute a satisfying success for Colas. Whether winners or not, the competitors, all aged between 19 and 22, have played their part in helping to project a positive image of the road building profession.

Emmanuel Pupier:
“More young people!”

“High-quality and precise curves, right-angles and cuts…” The judges did not stint in their appreciation when they proclaimed Emmanuel Pupier as the winner of the “road and main services” category. Laying paving slabs and curbstones is now second nature to Emmanuel, who has shown great talent and enthusiasm for his craft ever since he first started working for Perrier TP in 1997. After he obtained a permanent contract in September 2000, he decided to compete in the National Skills Competition. A good decision: he scored 18 or 19 out of 20 (he says he can’t remember!) in the regional heats to beat competition from nine other candidates, and then beat seven other regional winners in the finals. Emmanuel can be proud of his achievement, which can only advance him in his chosen career. Not yet 20 years old, he has already been appointed supervisor for urban works at Perrier, a meteoric start to what we hope will be a long career. “I’ve always loved this industry,” says Emmanuel. “The Skills Competition is a good way of getting young people to know it better, which is important because it needs more young people.”
An all-woman crew in the Screg Challenge

Five women from Screg Est took to the water on a 27-foot sailboat in the 18th Screg Sailing Challenge from May 5 to 8 in the prestigious setting of La Trinité-sur-Mer. For these five newcomers to the predominantly masculine world of sailing, under the watchful eye of Marie-Albane, their experienced skipper, the whole event was like a dream. After only two short days of preparation, they were competing against 63 other boats.

“What bound us together was our energy, our competitive spirit and the attraction of a new sport,” says Isabelle Chanas, who spent four months persuading sponsors and recruiting the crew. During the Challenge, the five young women quickly got to know each other, and were treated as fully-fledged sailors while they were at sea. “That didn’t stop us having a good time as well,” they laugh. They lined up for six races in three days with ideal weather conditions of wind and sun. In the last race, the boat was guilty of a false start. “We sailed back in a deafening silence!” recalls Valérie Cussemene. Even so, the challenge was undoubtedly won, and the all-woman crew finished 40th in the overall classification. “We showed that with determination, a lot of energy and modest means, we were competitive in a regatta.”

The “challenge” is more than a sailboat race, confirms Isabelle: “It’s also experiencing an adventure as six people who don’t know each other, working in a confined space and making our differences into a strength.” They celebrated with supporters and friends at the closing buffet. “I am satisfied, both as a member of the crew and as the organizer,” concludes Isabelle. “The sea is a difficult environment – the weather sets the pace, and it’s the feeling of being so small in the face of such immensity that motivates you.” The sailing bug has taken hold: all five are eager to take to the high seas once again.
A Compostyrene project in Menton

The collapse of the Ciappes road in the hills around Menton in southeastern France was due to this winter’s bad weather conditions. Heavy rain fell and could not be drained. It remained trapped behind a wall of concrete which formerly sustained the road surface. The wall broke under the tremendous pressure from the water. The city of Menton sought to re-establish traffic as soon as possible and called on Snaf (Screg Sud-Est). The only constraint for the bid was the clearance of the pavement (6 meters). The project was to take two months.

The Compostyrene EPS light embankment process was chosen: it is not possible to transport concrete blocks on this winding, steep road. Expanded polystyrene (EPS), produced by the molding of parallelepiped blocks, was chosen as a material to stabilize landslides. These blocks, with dimensions of 5.08 x 1.23 x 0.515 m, and weighing 70 kg each, considerably limit the mass. One cubic meter of Compostyrene weighs 19 kg while a cubic meter of earth weighs about two tons. Compostyrene offers many advantages: in addition to its extreme lightness it is a highly...

**BEFORE**
A road destroyed by bad weather

**AFTER**
An embankment process chosen for its lightness
resistant material and it does not rot. Fire damage is impossible because it is covered with earth. The technique is very precise: “The key is the base; once well prepared, asymmetrically we follow a very precise pattern… it is a building block game,” says Archange Barlet, Project Manager, one of the Compostyrene specialists at Screg Sud-Ouest who came to assist the Snaf team. This is echoed by José Campion, a Ruban Vert skilled worker: “It’s like a Meccano game. It is very important to get the pattern right from the start: firstly we assemble the rows of polystyrene, then they are glued and finally nailed.”

For these very special projects, preparation is key: site soil and hydrology studies to examine the path of rain water run-off, embankment service constraints (road traffic, lateral pressure, etc.), verification of maximum permissible pressure conditions and, of course, the taking into account of aesthetic and environmental factors to ensure proper integration of the embankments within the landscape. The Snaf team of six people placed 500 blocks of Compostyrene at this site. Very strict laying rules were developed for the Ciappes road that required several steps. Upstream and initially, the conformity with expanded polystyrene manufacturing norms was verified and the sub-base layer was carefully adjusted. Then, once a pattern had been established, the blocks were assembled in bound and crossed layers. Lastly, the paving and road work could begin, before the making of a trim for the structure.
Construction, another Colas activity

Exacting sales preparation, long work schedules, a wide range of activities: within Colas, the Construction branch is a field apart, handled by teams separated by many thousands of kilometers, those of GTOI and its subsidiaries in the Indian Ocean, and those of the Construction agency in greater Paris area.
Within Colas, the construction activity involves several entities: the Colas Construction agency, based in Chatou, which works mainly in the greater Paris area; GTOI, located in Reunion Island, which does 50% of its work in construction; and three Colas agencies, located in Mayotte, Djibouti and Madagascar. “Our refurbishment and new construction activity is growing rapidly,” says François Alborghetti who manages the construction agency in Chatou. GTOI, a wholly-owned subsidiary of Colas, does most of its business in new construction. “Over the past fifteen years, Reunion Island has benefited greatly from the Pons law on tax-free investment which gave a boost to the construction of housing on the island,” states Marcel Daizé, Deputy General Manager of the Group in charge of the Indian Ocean and southern African area. “The housing segment is less important nowadays, but the construction sector is still very active.”

New construction: very diverse projects
While half the activity of the teams in the Paris area involves new construction, the proportion is much higher for GTOI. “It represents 90% to 95% of our activity,” Marcel Daizé estimates. In the greater Paris area as in Reunion Island, new construction projects are very diverse: housing, facilities, administrative buildings, etc. GTOI built the departmental archive building for the General Council of Reunion Island. It boasts a surface area of 10,000 square meters and required eighteen months of work. Colas built the new French high school in Madagascar for 1,200 students and, in Mayotte, a 70-bed maternity clinic. Near Paris, the construction agency has just started work on an extension of the
and necessary phase is the project preparation.” If you want peace of mind and a light heart when the work begins, you need at least a month of good, thorough preparation. “If the analysis of the project has been done properly and thoroughly, the work site can be organized easily and we can do our top quality work. But we are not just paper managers. We must also lead the work teams.” During the main structure work phase, when working with Colas employees, the organization is relatively simple. Things start to get complicated when the different tradesmen begin their work. “Each group of tradesmen and each trade tends to work independently. Part of my job is to coordinate all of the contractors. In the end, the human factor is the most difficult to manage.”

Le Raincy sub-prefecture. It is in the process of completing the L’Isle-Adam Music Conservatory and a gymnasium in Châttillon. The agency also works for the Group: after building the Magny-les-Hameaux research laboratories, it was assigned the extension of the head office in Boulogne. “Today, we shoot for 6 to 15 million-euro projects,” François Alborghetti explains. “We do 40% of our work for the public sector and 60% for the private sector,” says Bernard Bondy, new construction manager at the construction agency. “Housing accounts for 40% of our sales, but our long-term objective is to reduce this. Although these projects are good experience and are part of our core business, they are less profitable.”

Refurbishment, a real specialty
GTOI handles little refurbishment work in Reunion...
Island. “Most of the building in Reunion Island took place thirty years ago. Renovation of all the buildings from that time is beginning,” Marcel Daizé explains. “But we are barely involved in this market, which represents a very small share of our activity.” At the Colas greater Paris construction agency on the other hand, this activity, minor until the end of the 1980’s, has developed with the grouping of three entities in a single structure: Colas Rehabilitation, Cayette et Dony and Sylvain Joyeux Bâtiment. Today, 6% of this structure’s business is in the asbestos removal sector. Otherwise, the average price for projects is around 1 to 1.2 million euros, with projects totalling as much as 6 million euros.

“We handle a wide range of projects,” says Marco Formichella, the manager in charge of this activity. “They include housing construction in occupied areas, office renovations, and facilities such as day care centers, swimming pools, hospitals and retirement homes.” His recent projects include the refurbishment of a section of the Pierre and Marie Curie housing project in Ivry, the refurbishment of the social services building at the Austerlitz train station, and the restructuring of a rent-stabilized housing project building in Arcueil, at a cost of 4.25 million euros. The work also varies considerably. For offices for example, refurbishment may involve entire empty buildings, which are renovated differ greatly from one to another.

> TESTIMONY

“I prefer refurbishment projects”

Philippe Jeandat, site supervisor

“At the moment, I am working on two projects. The first project, which we are currently completing, is for an indoor market. We have been working on a 4,000 square meter area on the ground floor of a building which dates back to the 1960’s. We completely demolished the building and then rebuilt it. In order to keep the market open during the eight months of our project, we divided it into two zones and we grouped the merchants in one of these zones. One of the difficulties of our work is our relations with users and occupants. The other particularity is that the buildings we work on often have surprises. We always use the original plans, when they exist, but they are often unusable. The other project which I am managing at the moment, a building of the ‘Ecole supérieure de physique et de chimie’ (Physics and Chemistry University), in the 5th arrondissement of Paris, is a good example. It dates from the 1920’s or 1930’s, and we have no plans. While the engineering department foresaw 80% to 90% of the difficulties, we will probably have some surprises with the structures and foundations. I still prefer refurbishment work however. It is less “industrial” than new construction, I get to work on many different types of buildings, with more room for initiative and more flexibility than for standard projects.”
Construction projects may last for two years, plus a year of preparation time.

Methods

In the Indian Ocean, the methods department, based at GTOI in Reunion Island, works on all projects in the area. As soon as a bid is issued, the structural engineers of each unit sift through the specifications to check the calculations for the future project. If the company wins the contract, the work will not begin until the methods department defines the site work methodology in the smallest detail, including each concrete cast wall to be poured and each floor. “Today, we can handle any structure and offer approaches to our clients which are both intelligent and economical,” Marcel Daizé explains.

In mainland France, at the greater Paris construction agency, this department does not exist. It is the site supervisors who take over from the engineering department to define the work methodology for the work sites they will be in charge of. An exchange of experiences and expertise on this subject is called for.

floor by floor, or occupied buildings, where the work must be done section by section with successive moves.

Housing project work is also very sensitive. “Our role is almost one of social service,” Marco Formichella says. “The project is successful when the site supervisor manages to integrate the life of the neighborhood or the city.”

The working conditions are sometimes very difficult, as in the case of the refurbishment and extension of a leisure center in Le Blanc-Mesnil. “The refurbishment project included the addition of police sub-station. This drew hostility from some of the residents,” according to Marco Formichella. The site was vandalized and finally had to be put under constant surveillance.

“Our work has some points in common with road construction, but also some differences,” Bernard Bondy concludes. “As for road construction, the sales approach depends largely on communications skills and, during the projects, personnel management..."
is essential. In construction we have a different rhythm, with longer cycles. The sales preparation for a project may take anything up to and beyond a year, and when we move to a site, it is for a much longer stay. The very shortest projects we work on last about twelve months, the longest may be up to twenty-four months."

Even though their work is very different, the construction members of staff still feel that they are a fully integrated part of the Group. "The Colas name and the support of a powerful company are still excellent selling points with respect to the competition," François Alborghetti underlines.

**SYNERGIES**

**France and Reunion Island: a dialogue**

Exchanges between the greater Paris and Reunion Island teams, rare until now, became more frequent at the end of the year 2000. François Alborghetti went to Reunion Island, and Philippe Raffin, Technical Director for Civil Engineering Construction for the Indian Ocean zone, came to Chatou.

"I didn’t know much about GTOI," Bernard Bondy said. "During our conversations, I realized that we did exactly the same work." The two companies began to talk about possible synergies. "We installed price study software which the GTOI teams recommended to us," says Bernard Bondy.
One is an executive secretary, another is a quarry manager, a third is a safety officer, another is a human resources assistant, yet another a project manager, another one is a preventive health and safety coordinator…

Every day, all of these people give it all they’ve got to make Colas succeed.
A former surveyor takes to site work

Bernard Thirionnet, site supervisor, France

At the age of 52, Bernard Thirionnet has no less than twenty-eight years of experience to his credit at Screg. He began there as a surveyor and worked on the construction of the residential estate Chevry II at Gif-sur-Yvette in the Greater Paris area. “What I most liked about the experience was working outside, it made a pleasant change from office work,” he explains. Ten years later, he was offered an opportunity to become site supervisor and work on asphalt projects. He leaped at the chance to acquire new skills in a field position. The new job required excellent technical abilities as well as a firm grasp of finance and the ability to keep to schedules. “Personal contact and availability are both very important qualities, whether with site foremen, skilled workers or customers,” reckons Bernard. He reminisces: “My first site consisted of a twenty-five kilometer stretch of the RN 6 between Joigny and Auxerre. It gave me a few sleepless nights because, as the work was carried out at night, it meant I also had to take responsibility for the site signs and signals. Safety comes first on a job site.” Currently, Bernard is completing the major contract to reinforce the A6 motorway between Evry and Chilly-Mazarin. “Even if the technique and the plant have changed, allowing us to go faster, there is still nothing that can be done about the weather,” he points out. The various issues arising from large-scale plant management intrigue him. He is thinking about developing his skills in this direction for the future.
The site safety man

**Lionel Auneau,**
safety officer,
France

Deputy to the regional head of Human Resources, Lionel Auneau has a specialist qualification in workplace health and safety and is in charge of safety affairs for the West/South West region of Smac Acieroid. He joined the company in 1991 for an internship in technological risk management. Lionel was hired to assume responsibility for preventive health measures. Taking him from Brittany to the French Riviera, his assignments involve advising on training programs, information meetings and awareness sessions. Whether the job site involves waterproofing, roof raising or industrial cladding, there is no shortage of risks, but they are not all of the same type. For a year and a half, Lionel has coordinated 27 profit-center safety officers. Delegating his expertise, he is satisfied with “being a functional link and not a hierarchical one. My role is to advise and optimize prevention.” Memos, procedures, e-mails, monthly reports – all these resources help improve safety. “If there are fewer accidents,” he remarks modestly, “it is because of the commitment of the teams in the field. We are only here to catalyze things, prevent accidents and train people.”

Projects of 31-year old Lionel from the Charente region include improving his efficiency in terms of safety and developing his knowledge in the field of human resources.

There for the whole family, even

**Françoise Cattanéo,**
expatriation assistant,
Human Resources,
France

Françoise Cattanéo is no stranger to Human Resources. Having “fallen” into it in 1976, she has not left her favored area of work since. “I started at Colas as a secretary in the management and employee relations section of the Human Resources department. In 1989 I became Human Resources assistant for Expatriation, a job I still hold today.” The job is a very complex one, combining administrative tasks with human contact. Françoise looks after the interests of expatriate Group employees as well as those of their families. She takes care of immigration formalities, travel arrangements, drafting of contracts, salary arrangements, insurance, and provides a hot line for families. Everything is thought of in advance. “These tasks are all part of the same service and must remain as such if expatriates are to feel...
Living in a changing world

Janis Austrins, manager, Latvia

One fine day in 1963, Janis Austrins left school. He was determined not to have a desk job. He rapidly made up his mind that he would build roads and to achieve this, he commenced his university studies. His first job took him a long way from the capital, Riga, and its pleasures. “Freedom comes first!” insists Janis. After seven years in the field, he gravitated to the job of managing planning and quality. He first dealt with the financial aspect of the job, something he now finds very useful. Since 1991, Latvia has changed greatly. New opportunities have cropped up and the economy is enjoying strong growth. For six years he worked in a State-owned company that was bought out by private enterprise.

A changing world! “We found out that our old ways of working and doing business were out of date. We had to learn all over again and invent new ways of doing things,” he says. He then joined SIA Union Asphalt Technik, a Group subsidiary in Latvia. “It was a gamble,” he admits. “We had to make our mark on a highly competitive market. But our strength was to build a very strong team of people who were young, highly motivated, not involved in routine and traditions.” In an economy that is only ten years old, everything remains to be done – new rules are being written and a new culture is being created. “In this renaissance, everyone has a contribution to make.” Good luck to Janis, and Latvia.

that they are always taken care of, even at the other end of the world. And to think that I do all this from my desk!” she exclaims. “But precisely what I like about it is this variety and complementarity.” Françoise’s job requires certain personal characteristics – diplomacy, thoroughness, a feeling for service and above all, listening skills. “Handling expatriation cases means providing support for families at what is a very important moment in their lives. And when they get back to base, a number of them stay in touch – now, that’s what I call job satisfaction!”

“Handling expatriation cases means providing support for families at a very important moment in their lives.”
Accent on workplace health and safety

Michel Cloutier, preventive health and safety coordinator, Canada

Michel Cloutier has now been on the job for a year. “After spending 29 years in Group administrative departments, when I had the chance to totally change my job, I jumped at the opportunity,” he reminisces. “Senior management had just set up the job of health and safety coordinator. The aim was to develop workplace health and safety in the company. Everything had to be built and structured. These are really important issues.” Michel carries out site inspections to check that operators are working under good conditions of safety. His role is also to give them advice, and over a period of a few months a number of projects have seen the light of day. For example, Michel has contributed to the publication of a booklet for employees and supervisors which sets out the company safety rules and restates corporate safety philosophy. Last spring saw the launch of Safety Week, which aimed to raise awareness among employees yet further. “I love my work in the field,” says Michel. “I regard myself as something of a missionary!” When he is not on a job site, Michel likes being in his garden. “I have a huge yard and this helps me get rid of stress and provides me with an environment where I can think things over,” he says.

Life with Colas, by Marcelle

Marcelle Drepoba, executive secretary, Ivory Coast

Marcelle began her “life with Colas” in 1979 with an internship at the Société Routière Colas in Ivory Coast, following two years of secretarial studies at a business college in Abidjan. She has worked ever since with the regional manager for West Africa. Marcelle is the living memory of Colas – all-seeing and all-knowing. She opens all the mail and distributes it, a job that gives her undisputed authority, which she exercises for the greater benefit of all. Willing and energetic, she helps everyone and plays mother to the youngest members of the company. Her job also involves organizing everyone’s travel arrangements. She has even been known to negotiate the release of an employee detained by the police during a vehicle spot check! For over twenty years, Marcelle has known the joys, problems and tragedies of the company. She says, “I really love my work. I have
Rail enthusiast

Alain Borios,  
project manager,  
France

His voice has the rough-hewn accent of the Aude, a windswept region in the south of France where people have their feet on the ground. Aged 54, a winegrower in his spare time and a graduate of the science faculty of the University of Toulouse, Alain Borios has enjoyed a 30-year career with Seco-Rail. He joined the organization in 1970 as a site accountant and is now a project manager. “As an accountant, I found a way into the job,” he says. “I learned how to manage men and got to understand the technical aspects. All the subsequent stages – assistant site supervisor, site supervisor then project manager – were educational. Climbing the rungs of the ladder allowed me to get to know and learn about all the aspects of the profession and have strong credibility with my customers, my colleagues and my operators.” Alain leads 260 people, who form a mobile team who constantly travel all around France to maintain ballast and rail track, section by section. Work, by both day and night, takes place under difficult conditions and requires heavy logistics and meticulous organization. His assignment consists of forward planning for job sites eighteen months ahead of time, organizing their logistics and verifying the various stages. It is a job done with passion, which requires strong availability, enormous professionalism and sense of responsibility at every moment. The safety of men’s lives depends on it as well as the smooth running of the job sites.

Marcelle sees her future in staying at Colas, but she can also imagine, one day in the far-off future, having a small shop where, as she says, “I can quietly carry on my own business.”

Known three CEOs, a series of crises in 1983 and immense sorrow two years ago when Stefan Pancrazi was killed in a plane crash, but I am very proud to be a member of the great Colas family.” Nothing in Marcelle’s family background pointed to a career as an executive secretary with a multinational corporation. Born in Bahouan, in the mid-west of the Ivory Coast, she bears the heavy responsibility of helping her family of 36 brothers and sisters who remain in her native village. “I am the only one of them to work, so I have to represent my family. In Africa this is important to us.” Marcelle sees her future in staying at Colas, but she can also imagine, one day in the far-off future, having a small shop where, as she says, “I can quietly carry on my own business.”
Pierre Le Lorec, quarry manager, France

Pierre Le Lorec, manager of the Seca quarry (Sacer Atlantic) has managed to find a way to combine a career in the mining and minerals sector with a personal interest in geology. Starting out as a welder over thirty years ago on the Saint-Avé site near Vannes, this 55-year old native of Brittany first progressed to equipment manager before taking over responsibility for the entire quarry in 1983. He is now in charge of 30 operatives, including the 19 quarrymen whose job is to extract mylonite, a granite rock which is transformed into aggregates used in the construction industry. “We extract 5,000 metric tons per day,” he explains. “Blasting, drilling, crushing – it is a field profession where mastery of the surrounding environment is vital. We have an integrated treatment plant on site which delivers down-stream production of sands, gravel and crushed stone. Their quality is constantly controlled by a laboratory technician.” Pierre, whose job is to manage all of the technical, plant and human aspects of the quarry, is delighted to be able to have an open-air profession, working with a strong team in his native region of Brittany. In addition, he has always been an enthusiastic collector of mineral rocks and has amassed several thousand specimens that have come from all corners of the world. Crystals, sand roses, geodes, Indian zeolites, azurites – Pierre is familiar with all of them and his greatly admired collection is constantly being added to, with rare stones that he has collected during his travels and acquired at conferences. From first having taught himself the basics of geology, Pierre has now become a rock and mineral expert, a specialist in stone in all its aspects.
“I believe in helping others”

Alain Raux, skilled worker and tutor, France

“I was never really keen on being a pastry chef. I decided to go into the building industry. I wanted to work outdoors as part of a team,” admits Alain Raux. So in 1990, Alain dropped out of pastry school and spent a year learning the skills of masonry. He started work at Demay where, supported by his boss, he learned a lot and honed his skills. By 2000, he was admitted to the Ruban Vert Skilled Workers order (Order of the Green Ribbon). A highly skilled worker already, he now had to learn how to lead a team, and became the head of a four-person group. Today, at the age of thirty-six, he works in the asphalt section with Scrg Ile-de-France-Normandie, where he has risen to be a foreman. “I like my work and I am happy in it,” he says modestly. Alain’s childhood was spent in foster homes. He is only too aware that happiness is a prized and fragile commodity. “I hope that I will continue to pursue my career successfully and move on, perhaps to Guadeloupe in five or six years’ time,” he says. For now, he likes to repay the help and understanding he himself received when young to new recruits to the profession, who find him a thoughtful tutor. “I like to give kids a helping hand, teach them the basics of the craft and help them to become part of the team,” he enthuses. He spends a lot of time with young people. In the town of Meaux where he lives with his wife and two, soon to be three children, this exceptionally energetic man coaches the local soccer team. On the field, he plays by the same rules: “you have to know how to deal with everyone, listen to them and understand what they want. And you also have to see things positively. If you have a negative outlook, nothing can progress.” Nothing like being constructive when you’re in the construction industry!

“I like to give kids a helping hand, teach them the basics of the craft and help them to become part of the team.”
it is also a symbol of freedom, and freedom is one of the foundations of our democratic societies. The automobile, an instrument of freedom, must be constantly improved in order to reduce the nuisances which it causes. I am speaking of polluting emissions, noise, traffic problems, unsuitable infrastructure, and, of course, reckless driving which is a

The automobile, a symbol of freedom and of roads, is subject to attacks which are sometimes virulent. How do you explain this fury?
I don’t think that fury is the word for it. But you are right, some people wonder whether the automobile is ‘politically correct’. The car is a vehicle for individual transportation but it is also a symbol of freedom, and freedom is one of the foundations of our democratic societies. The automobile, an instrument of freedom, must be constantly improved in order to reduce the nuisances which it causes. I am speaking of polluting emissions, noise, traffic problems, unsuitable infrastructure, and, of course, reckless driving which is a
threat to road safety. As an automobile manufacturer, Renault works on reducing these nuisances, particularly with regard to active and passive safety. The responsibility for management of nuisances must be shared between all parties involved: manufacturers, public authorities and consumers.

**How will the car of tomorrow protect the environment? What is the state of research on vehicle recycling?**

It is not just the car of tomorrow which will protect the environment. This is the case for cars which we are currently selling today. The development of sophisticated depollution systems and new technologies for thermal engines has allowed for very substantial reductions in polluting emissions. The progress made in consumption helps lower CO₂ emissions. The exterior noise standards for cars are now much more stringent. On our new models for example, the noise level is half of that required by the current standards, which already represented a substantial reduction. I would add that recycling is also a reality. About 90% of the mass of our cars can be recycled, and we have been developing revalorisation divisions for several years. During the period 2005-2010, we will be working on making cars lighter in order to consume still less, and also on economically-viable development of new energy sources such as hybridization or fuel cells.

**On-board Internet: is it just a gimmick?**

In the 1990’s, Renault was one of the major figures in Europe taking part in the development of on-board GPS navigation systems, which are now supplemented with traffic information. On-board telematics is a field which we know extremely well. Today, the possibilities for communication between cars and the outside have increased tenfold with the new technologies such as Internet and the future communication protocols such as UMTS. I am still convinced that the first system on the market will not necessarily be the winner. We must develop all of these systems in an intelligent and realistic fashion to offer services which the customer really needs at the lowest possible price. We must develop easy and rapid user interfaces, identify standards and lasting technologies, and find the right partners in the various international automobile markets. Above all, this must all be compatible with driving a car. Until voice commands are perfected, the issue of driver ergonomics will be crucial. Many difficulties remain and no automobile manufacturer has yet found the perfect formula to resolve these difficulties. But we are working on it.

**How is Renault determining the policy for its new product line?**

The automobile market is relatively segmented and we constantly monitor changes in customer expectations in the various markets and segments. In Europe for example, the life cycle of a model is from six to seven years. It is these two basic facts which allow us to set a product development policy by introducing the flexibility needed to adapt to competitive environments or changing customer demand. Even in established market segments, we look for new, unheard of and highly innovative approaches. Twingo was one example in the small, inexpensive car segment which, as you may remember, was a segment declared to be moribund and unprofitable. Vel Satis and Avantime were another two on the luxury segment which is said to be very conformist and traditional. Renault is Renault because it has discovered new automobile segments, like that of the monospaces with Espace and Scenic. Renault has a major competitive advantage which is its ability to anticipate and to innovate.

**What are your hopes with the return of a 100% Renault team to Formula 1 racing?**

Renault's Formula 1 involvement supports its international development in terms of reputation and image. Formula 1 Grands Prix racing attracts a total of some 30 billion television viewers during a season. This flagship motor sport has an image of technological excellence in the countries where Renault is already present. In the future it should also contribute to increasing our reputation in international markets where Renault is planning further development.
Claude Martinand: constructing a Europe of transportation

With the inauguration of the Mediterranean high-speed rail link in June, Réseau Ferré de France is building the future of the French rail network. Claude Martinand, Chairman of Réseau Ferré de France, sets out the current projects, in which economic development and territorial equality both have a place.
In the construction of the new Mediterranean high-speed rail link, inaugurated on June 7, what role did Réseau Ferré de France (RFF) play?

RFF acted as contracting authority, retaining the organization put in place prior to RFF’s formation as it has only been operational since 1997, when construction of the trackwork structures was already well underway. Although the project has not been substantially altered, the level of compliance has doubtless been reinforced to the extent that RFF has set up a more detailed system of reporting.

Are you the contracting authority on new high-speed tracks?

On the new lines we will take on direct contracting authority responsibility, unlike on the Mediterranean line where we delegated it to SNCF, the French national railroad company. This is already the case for the east-European high-speed link, where we have put the engineering consultancy for the structural work out to bid. We have four consulting engineers, including the SNCF. For rail equipment, given the current state of expertise, the SNCF offer is by far the best.

Will this still be so in the future?

Not necessarily. Other European operators are building high-speed tracks and may become competitive.

What value do you add when you act as contracting authority?

I believe that the separation between contracting authority and consulting engineer is vital because it forces us to separate responsibilities, clarify them, define each party’s role, be far more consistent in the drafting of specifications and involve responsibility of the consulting engineers to the decision-making process. In addition, the contribution of different types of expertise guarantees a pluralistic approach. Following a process therefore delivers a guarantee of quality. Finally, inverting the mode of finance means being accountable to co-financiers who are very demanding in terms of decisions, reporting and the information given to them.

What are RFF priorities on other network development projects?

We have tried to end the “all high-speed train” policy. For us, absolute priority goes to maintaining performance of the existing track infrastructure. If we don’t manage this, it will turn against us in the years to come. This is what is currently happening in Britain. Next, we want to clear saturation from the stretches of track that form bottlenecks on the traditional network and encourage balanced development of freight, major lines and local rail links. These operations are already well provided for in the French Rail Plan. So RFF is no longer acting alone in setting targets, to the extent that the French government and regional authorities are major co-financiers. The financial contribution of RFF is a minority one. The point is that we are making progress through our energy, our proposals and having the right projects.

The 1996 Rouvillois report came to some alarming conclusions about continuing to build the network of new rail lines and stressed the financial stalemate. But while waiting for reforms to be implemented, it made no proposals. On our side, we suggested pursuing the master plan at a more moderate pace, while unfreezing the east-European high-speed rail link project. We want to develop the best project at optimum cost, which means that we have to find every possible saving once the major functions of the project are safeguarded.

What projects are on the agenda for RFF?

Currently, beyond the east-European high-speed project, we are developing five new railroad line projects simultaneously. They are Rhine-Rhone, eastern and southern branch lines, Lyon-Chambéry and the start of the French stretch of the Lyon-Turin link, Nîmes-Montpellier, Perpignan-Figueras and the extensions of the high-speed Aquitaine and Brittany-Loire region high-speed links. The only priorities that we have to take into account involve the international commitments made to the trans-European network.

Other lines were on the agenda, which have since been dropped. They were Paris-Orleans-Limoges, Paris-Clermont Ferrand, Paris-Rouen.
and Bordeaux-Toulouse-Narbonne. We have put forward better-adapted projects, sometimes with pendulum rolling stock. This is the case for Paris-Orleans-Limoges-Toulouse and Paris-Clermont-Ferrand. In addition, we have thought of bold solutions, such as that for the Normandy-Seine Valley link, which can be used both for main line trains and as an entry point to the Eole rapid transit system. These trains will form part of the Charles-de-Gaulle Express link, a dedicated fast link from Paris to Charles-de-Gaulle airport, with baggage check-in at the Gare de l’Est railroad station.

**Will these projects encounter local opposition, as the Mediterranean did?**

We are not in the same situation as the SNCF. Previously, all the local decision-makers were able to support the opponents of rail projects. Today, this is finished, because of co-financing arrangements. In addition, we are no longer in a position where we want to carry out a project at all costs. We are the contracting authority and we carry out the development with financing from other players. This shows the usefulness of the project much more clearly. Opponents therefore have greater difficulty in manifesting themselves. Things are completely different now. The problem is no longer one of financing projects by making operators financially liable. In addition, the government has considerably increased the size of its contribution, and therefore has the most difficulty keeping up with the pace of project development.

At the same time, we are organizing public debates on the projects, according to the procedure laid down by recent environmental protection legislation. In the autumn we will set up a debate in Lyon, in conjunction with the Transport Ministry, concerning the project for a road and rail bypass of Lyon. This will allow us to discuss the interoperability of road and rail systems. It is the only way to demonstrate that these two projects are necessary.

**How do you fix the priority of projects?**

We have no automatic preferences. We perform socio-economic and feasibility calculations using traditional methods issuing from governmental directives. Next, we only finance that share of the project that does not have negative impact upon our accounts. For the rest, that is up to the authorities. We do, however, take account of the question of territorial equality and regional development. We are also in the course of constructing a Europe of transportation. It should be noted, for instance, that the journey from Paris to Frankfurt is shorter in terms of kilometers than the journey from Paris to Marseille, yet the time the journey takes is over five hours. So even if it is not the most profitable project, the east-European high-speed link is prioritized for regional development reasons, which includes providing links to the countries on France’s eastern

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**RECYCLING**

**RAILROAD TRACK BALLAST**

Year by year, RFF has increasingly turned to a policy of refurbishment of railroad lines through renewal of ballast. As RFF wishes to gain an advance on forthcoming legislation which will require recycling of waste from civil engineering and construction sites, it has decided to recycle ballast material. Ecoballast, a Colas Group subsidiary set up in 1997, is the only company in France to have received official SNCF French railway authority approval for the recycling of used ballast. The materials come for the most part from the five SNCF regions that border Paris, but also from the regeneration work carried out on the Paris-Lyon high-speed rail line. The recycling is conducted in two phases. Firstly, stripping of the lines, next reprocessing, which consists of re-grading and then re-crushing the old ballast. Ultimately between 30% and 40% of the old ballast is reused.
frontier. The combination of the two criteria of economic feasibility and territorial equality means that it is necessary to make choices which clearly do not appear to be rational in the eyes of these who are only interested in the criterion of financial profitability.

**With four years’ existence to its credit, RFF is still relatively young. Do you have a particularly clear idea of your role, your missions and your profession?**

We do have a certain vision of our missions and we are gradually taking them on with the degree of prudence that is required for ideas to mature. But other players do not necessarily share our reading of the legislation. In addition, after having worked to implement the 1991 and 1995 directives and the 1997 legislation, now the 2001 rail package has to be entirely transposed for 2003. This is a difficult one. We have to conform to European legislation, but in the French manner. We’ve invented a whole new profession!

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**SECO-RAIL – A BUILDER OF RAILROADS**

RFF, acting as contracting authority, defines the work to be carried out to extend or renovate the existing French railway network. The Colas Group is a player on this market through the intermediary of its newly acquired subsidiary, Seco-Rail. The company, which specializes in all aspects of railway line construction and refurbishment, works on over 200 kilometers of track every year, performing renovation operations and major refurbishment, involving the total renewal of the rails, sleepers and ballast. This requires a schedule to be drawn up eighteen months in advance. Seco-Rail also has strong expertise in construction of new trackwork, particularly TGV high-speed lines, such as the northern section of the new Paris-Marseille link and, a major contract, the east-European high-speed link in 2004.
EXHIBITION

The Colas Foundation at the IRF

An exceptional art show for an exceptional event. The Colas Foundation chose to display all the works it has acquired since 1991 at the World Road Congress.

For the first time, the Colas Foundation has exhibited its entire art collection, consisting of around 120 paintings and several sculptures. To organize this event, which took place during the World Road Congress, a complex set of logistics was required. Firstly, the pictures, dispersed over the four corners of the world, had to be rounded up. For example, twenty-seven canvases had to be repatriated from French and American subsidiaries. All of the works then had to be inventoried, and a number of them needed to be re-photographed. It was in fact on the occasion of this exhibition, which also celebrates the tenth anniversary of the Colas Foundation, that a special catalogue was published, containing all of the works in the collection and on the cover a painting by Isabelle Champion-Métadier, dating from the beginning of the Foundation. In order to compile the catalogue and bring the biographies of the prizewinning artists up to date, all of them had to be contacted. Finally, the Foundation commissioned a painter to produce the scenographic design of the exhibition, which had to display all of the canvases to their best advantage and in the best possible light. The collection is dedicated to the single theme of the road and reflects a number of styles and movements of contemporary art, including figurative, abstract, surrealism and simili-impressionism. A work by Speedy Graphito, in the form of a tribute to “trend” painting, was chosen to illustrate the invitation to the exhibition opening. The day of the opening, nearly six hundred people, including thirty of the artists, gathered to admire the collection. The following days it was the turn of Congress delegates to walk through the areas of contemplation that, dedicated to the art of painting, had fallen silent – a haven of peace amidst the heady atmosphere of the Congress. The exhibition visitors’ book contains many enthusiastic comments, written by visitors who were both surprised and delighted by the size and diversity of the collection. A stunning demonstration that art and road building can go together!
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Tracey Hofheinz.
Anne Vignal has exhibited at many galleries, including:

2000: Galerie Blom, Dordrecht, Netherlands

2000: Centre of Contemporary Art, Macau, China

1999: Fondation Daniel et Florence Guerlain, France

1998: Galerie Berthet Aïtouares, France

The mountain, the bird, the boat and the clouds – something of the mystery of childhood in the wandering lines and strong colors. Remove the frills, show and name, draw and say – or a way of reaching out gently and naturally for the impossible.