What’s your next move?

2015 Activity Report
37,000 projects near you and for you.

- Completion of the construction of the Briancon-Riez-Valgaudemar railway line in France.
- Rehabilitation of the Massa river bed in Switzerland.
- Construction of a logistics platform for Les Mousquetaires in Bourges, France.
- Upgrades to the communication networks of the City of Paris.
- Rehabilitation of the Alpha runway at Paris Charles-de-Gaulle Airport to accommodate the Airbus A380, France.
- Riprap for erosion control at the Villeneuve-Saint-Georges train station, France.
- Rehabilitation of the tramway line at the multimodal transport centre in Valenton, France.
- Extension of the bike path/bridge between Doubský, Tašovice and Svatošská, Czech Republic.
- Development of micro-places in Béziers, France.
- Roadworks/utility networks at Parc Barbieux in Roubaix, France.
- Repairs to Cour des Offices du Château de Fontainebleau, France.
- Regional works in Boulogne-Billancourt, France.
- Renewing the roadway on RN176 which crosses Pleslin, Plouër-sur-Rance, Quévert and Saint-Maximin, France.
- Construction of a bridge on the N360 road near the location of the future Château de Versailles, France.
- Maintenance of roadways A30 and A35 between Exeter and Bere Regis, United Kingdom.
- Blast furnace RD999 in Montauban, France.
- Rehabilitation of the rail line connecting Pardubice to Ždírec nad Doubravou, Czech Republic.
- Logistics platform for CAT at Batilly, France.
- Integrated signage offers for Lapeyre and Décathlon, France.
- Demolition of a tower in Champigny, France.
- Dismantling of bridges at the Hamlet of Samson-sur-Rance, France.
- Rehabilitation of the Faisanderie stadium in Fontainebleau, France.
- Delivery of the Hroznětín water intake in the Czech Republic.
- Wastewater collection for Parc Olympique Lyonnais, France.
- Bus rapid transit system in Martinique.
- Building of a pedestrian bridge at the Haute Normandie Maritime in Rouen, France.
- Demolition of 2 structures on A9 in Montpellier, France.
- Construction of a road interchange at Bar-le-Duc.
- Roadside improvements for the delivery of power to La Défense, France.
- Under-taxiway passage for vehicles at the multimodal transport centre in Valenton, France.
- Construction of a special parking zone near the Parc des Expositions du Bourget, France.
- Development of the multi-lingual terminal at the airport of Bologna, Italy.
- Implementation of dynamic control equipment on RN346 (eastern bypass at Lyon), France.
- Renovated the Střešovická Street tram line in Prague, Czech Republic.
- Rehabilitation of a utility tunnel in Nanterre, for the delivery of power to La Défense, France.
- Under-taxiway passage for vehicles at Escœuilles, France.
- Construction of a bicycle path at Vulaines-sur-Seine, France.
- Road surface repairs on the road near the Melia Hotel and upgrades to the ring road at La Défense, France.
- Works at Centre National des Sports de La Défense, France.
- Rehabilitation of the Bar-le-Duc city centre, France.
- Gripfibre Rechenstrasse in Dresden, Germany.
- Development of an intermodal yard at Deltaport, British Columbia, Canada.
- Repairs to the asphalt on A26 at Thennelières east of Troyes, France.
- Renewing surface course for A404 between Saint-Martin-du-Fresne and Oyonnax, France.
- Basalt supply to renew pavements at La Défense swimming pool on A15, France.
- Construction of the Northwest Corridor, Atlanta, United States.
- Recreated ecosystems in the Yville-sur-Seine quarry, France.
- Redeveloped the village of Guignats near Saint-Symphé, France.
- Roadway/pavement/landscaping for the Pexico project, France.
- Construction of an intercity bus lane in the region, France.
- Rehabilitation of the city centre of Royan, France.
- Road-maintenance services for J-55 in the region of Maule, Chile.
- Conservation of a segment of road in the South Valley, France.
- Construction of a new bicycle parking area near the Musée de la Marinière, France.
- Drainage system for the Saclay Plateau, France.
- Rehabilitation of the Casey Street bridge near the Cape Fear River, United States.
- Reconstruction of a line of dunes near the sea in Ploërmel, France.
- Rehabilitation of a footbridge in Le Pouliguen, France.
- Rehabilitation of the 2nd segment of Boulevard Urbain Ouest in Montauban, France.
- Rehabilitation of a pedestrian bridge in the city of Poitiers, France.
- Upgrades to streets in the historic city centre of Cluj-Napoca, Romania.
- Repairs to RN12 in the Yvelines, France.
- Rehabilitation of the circular road around the West Mound of the Château de Versailles, France.
- Maintenance of roadways A30 and A35 between Exeter and Bere Regis, United Kingdom.
- Blast furnace RD999 in Montauban, France.
- Rehabilitation of the rail line connecting Pardubice to Ždírec nad Doubravou, Czech Republic.
- Logistics platform for CAT at Batilly, France.
- Integrated signage offers for Lapeyre and Décathlon, France.
- Demolition of a tower in Champigny, France.
- Dismantling of bridges at the Hamlet of Samson-sur-Rance, France.
- Rehabilitation of the Faisanderie stadium in Fontainebleau, France.
- Delivery of the Hroznětín water intake in the Czech Republic.
- Wastewater collection for Parc Olympique Lyonnais, France.
- Bus rapid transit system in Martinique.
- Building of a pedestrian bridge at the Haute Normandie Maritime in Rouen, France.
- Demolition of a tower in Champigny, France.
- Dismantling of bridges at the Hamlet of Samson-sur-Rance, France.
- Rehabilitation of the Faisanderie stadium in Fontainebleau, France.
- Delivery of the Hroznětín water intake in the Czech Republic.
- Wastewater collection for Parc Olympique Lyonnais, France.
- Bus rapid transit system in Martinique.
- Building of a pedestrian bridge at the Haute Normandie Maritime in Rouen, France.
- Demolition of a tower in Champigny, France.
- Dismantling of bridges at the Hamlet of Samson-sur-Rance, France.
- Rehabilitation of the Faisanderie stadium in Fontainebleau, France.
- Delivery of the Hroznětín water intake in the Czech Republic.
- Wastewater collection for Parc Olympique Lyonnais, France.
- Bus rapid transit system in Martinique.
- Building of a pedestrian bridge at the Haute Normandie Maritime in Rouen, France.
ALWAYS ON THE MOVE, TO HELP YOU GET AHEAD

As a local partner, Eurovia develops mobility solutions designed to enhance local economic competitiveness and strengthen social bonds by designing, building and maintaining transport infrastructure and fostering urban development.
Responsibility and Accountability are key values for Eurovia. Wherever we operate around the world, we are driven by the same will to conduct ourselves in an exemplary manner with respect to all our stakeholders. I am calling on all Eurovia employees to act in compliance with all applicable regulations, reinforced by the requirements set out in the VINCI Code of Ethics and Conduct which defines our good practices.

The success, development and sustainability of Eurovia require strict compliance with these good practices by everyone, without exception.

Pierre Anjolras,
President of Eurovia
EUROVIA AROUND THE WORLD

What's your next move?

EUROVIA'S GEOGRAPHICAL PRESENCE

1 — Belgium
2 — Canada
3 — Chile
4 — Croatia
5 — Czech Republic
6 — France
7 — Germany
8 — Lithuania
9 — Luxembourg
10 — Poland
11 — Romania
12 — Slovakia
13 — Spain
14 — United Kingdom
15 — United States

1,300 entities
15 countries
3 zones

REVENUE BY GEOGRAPHICAL AREA

47%
33%
20%

France
Europe, Railways and Specialized Subsidiaries
Americas and United Kingdom

Eurovia 2015 Activity Report
Open the way, improve access. Create movement and foster sharing. On every project, make progress and apply innovation in the field, through the use of materials and equipment. Every day, take care of the infrastructure heritage we design together.

PREVEN® is a new training tool for occupational safety and accident prevention designed by Eurovia. It uses 3D animation to create an interactive and immersive experience for trainees in the Group’s four business lines. PREVEN® is a real innovation in training and public works and received several awards in 2015.
In the gardens of Château de Versailles, the Water Theatre Grove designed by André Le Nôtre in 1671 has been restored as part of a project to create a contemporary garden. Eurovia took part in building the basin and sandy promenades around the fountain in collaboration with landscape artist Louis Benech and visual artist Jean-Michel Othoniel.

Regina Bypass, Canada
Eurovia is taking part, through its Canadian subsidiary Carmacks, in a major highway bypass project in the capital city of the province of Saskatchewan in central Canada. This public-private partnership contract brings together several VINCI Group subsidiaries, pooling their complementary areas of expertise. The Regina Bypass will contribute to the province’s economic and urban development.
In its aggregate-production activities, Eurovia attaches the greatest importance to cooperation with local stakeholders and the rehabilitation of quarrying sites at the end of operations. “Open-day” events held at the Jakubcovice quarry – the Czech Republic’s largest – drew some 1,500 visitors in May 2015.

ETF, a subsidiary of Eurovia, is constantly innovating in efforts to speed up rail projects for the benefit of users. To build the SEA HLS Tours-Bordeaux line, a sleeper-installation trailer and continuous welded rail (CWR) “pusher” wagon were used. To renew the rail network in the Île-de-France region, the use of the “suite rapide” train for dense urban zones restored the track in record time.
Injecting new life into materials
Eurovia conducts pioneering research to recycle materials. Recyvia® and Recyclovia can already be used to create wearing and base courses made from 100% recycled materials. Eurovia can also recycle already recycled materials to create asphalt mixes. All of this is good news for preserving raw materials.

Province of Murcia, Spain
Eurovia will continue to care for the 190 km of national routes and highways in the province of Murcia, thereby sustaining a 20-year business relationship with the government of Spain built on trust. Two new contracts calling for general and highway maintenance have been awarded to Eurovia for a period of at least four years.
Welcome to young women engineers

Before she was hired by the Major Projects division, Ane Ezenaro Beristain (originally from Spain and studied and graduated in France), a student at École des ponts et chaussées, won first prize in Eurovia’s 2015 end-of-study project contest in France. Her project focused on the widening scheme for motorway A63 between Biarritz and Biarotou.

Joanne Huett (Great Britain), a student in civil engineering at the University of Southampton, has begun her last year in the graduate-integration program at Eurovia, where she had the opportunity to work on the exciting Isle of Wight project and be selected as an ambassador for the Institution of Civil Engineers.

Vega station, France

A healthy and thrifty mode of transport. An electric vehicle powered by a renewable source of energy. A comprehensive service for communities and businesses seeking to develop a fleet of free-access bicycles.

The Vega plug-and-play solar-powered station for electric bikes is all of this. This innovation was presented by Eurovia at the COP21 Solutions in December 2015 and has been developed as part of an open-innovation partnership with a start-up.
Our clients’ needs are evolving, and so are we

Pierre Anjolras, President of Eurovia

How is Eurovia doing?
P.A. In 2015, facing fluctuating and inconsistent market conditions, Eurovia demonstrated how robust its business model is. The high performance of our international operations and high volume of railway projects were able to limit the impact of the considerable decline in roadworks in France. Despite the drop in our sales figure, we sustained a 3% operational margin.

What are Eurovia’s strengths?
P.A. In addition to the diversity of its business lines and geographical locations, Eurovia develops a management model that is both integrated and strongly decentralized. Our “Building Together” corporate project, launched in 2015, reasserts the fundamental components of our business model and consolidates our company-wide culture by focusing all of our teams on shared operating performance objectives. Let’s take safety, for example: the fourth edition of our International Safety Day allowed us to mobilize teams from all sites and all divisions around the world on this key issue.

What is your value proposition for the market?
P.A. By choosing Eurovia, you choose a partner who is local, innovative, and committed to your success. We can mobilize our network of autonomous business units wherever needed in order to implement our operational excellence in the field and meet our clients’ expectations. This is true of the 37,000 projects we manage on a daily basis and of major, large-scale projects. Over the long term, our network of quarries develops circular-economy solutions, while Eurovia designs and tests techniques and innovations in real-world conditions that lead to optimal maintenance methods for roadways and railways.

“Our ‘Building Together’ corporate project reasserts the fundamental components of our business model and consolidates our company-wide culture.”

What is the outlook for Eurovia?
P.A. In France, we will pursue efforts to adjust to a challenging market. Elsewhere in Europe, the implementation of significant funding for transport infrastructure – including the public-private partnership program in Germany and European Union funding in central Europe – will support our activities. In the Americas, Eurovia’s activity will remain at a steady level in the United States thanks to contracts awarded to Eurovia in 2015. In Canada, the new government’s investment plan, which is focused on infrastructure, opens up new opportunities for our subsidiaries.

And what is your next move?
P.A. Eurovia will proactively pursue its international development strategy in the railway sector and in a more targeted manner in the Americas. In addition to external growth, we will extend our value chain further upstream into infrastructure design and further downstream into maintenance services. In short, we will fully develop our capacity as a full-service provider, especially in projects developed in synergy with other VINCI entities. Finally, by extending the scope of our business, we will create value and foster the emergence of tomorrow’s smart infrastructure.
1  — Pierre Anjotras
PRESIDENT
Born in 1966. He is an engineer and graduate of École polytechnique and École des ponts et chaussées. He worked for the Loire-Atlantique department of infrastructure and, later, the European Commission’s Directorate-General for External Relations, before joining the VINCI Group in 1999 as the regional director of Sogeà Sud-Ouest. In 2004, he became the chief executive officer of Cotheure before being appointed chief executive officer at ASF in 2007. He joined Eurovia on May 1st, 2010 as deputy executive officer in charge of international and public-private partnerships. He was appointed President of Eurovia on March 1st, 2014.

2  — Jean-Pierre Paseri
DEPUTY CHIEF EXECUTIVE OFFICER, FRANCE
Born in 1957. He is an engineer graduate of École polytechnique and École des ponts et chaussées. He began his career at GTM in 1983. After working on several major highway and high-speed rail projects, he was appointed president of VINCI Construction Terrassement in 2000. In 2010, he was appointed to lead the SEA project, concurrent with his position as president. He joined Eurovia in March 2014. He is also president of the technical commission at FNTP (France’s national public works federation).

3  — Patrick Sulliot
DEPUTY CHIEF EXECUTIVE OFFICER, AMERICAS AND UNITED KINGDOM
Born in 1959. He is an engineer graduate of École nationale supérieure des arts et métiers. He joined Eurovia in 1984 as a works engineer. Over the years, he has served as division manager in Paris and Lyon, regional director for Rhône-Alpes, and, in 2000, delegate director in Rhône-Alpes Avergne. In 2007, he became Deputy Managing Director of Eurovia Limited in the United Kingdom. In 2010, he was appointed delegate director overseeing the United Kingdom, Spain, and Chile. In 2012, he was appointed director for the Americas and, in 2013, he became a member of the Executive Committee.

4  — Xavier Neuschwander
DEPUTY CHIEF EXECUTIVE OFFICER, EUROPE, RAILWAYS AND SPECIALIZED SUBSIDIARIES
Born in 1957. He is an engineer graduate of École polytechnique and École des ponts et chaussées. He began his career at GTM in 1983. After working on several major highway and high-speed rail projects, he was appointed president of VINCI Construction Terrassement in 2000. In 2010, he was appointed to lead the SEA project, concurrent with his position as president. He joined Eurovia in March 2014. He is also president of the technical commission at FNTP (France’s national public works federation).

5  — Jean-Damien Pô
HUMAN RESOURCES AND SUSTAINABLE DEVELOPMENT DIRECTOR
Born in 1974. He studied at École normale supérieure Lettres et sciences humaines and Institut d’études politiques de Paris; he also holds a PhD in literature. After serving as executive director at Institut de l’entreprise, he joined VINCI in 2011 as secretary to the Executive Committee, before becoming director of human resources development. He joined Eurovia in January 2014.

6  — Patrick Juliet
CHIEF FINANCIAL OFFICER
Born in 1961. He is a graduate of École supérieure des sciences commerciales d’Angers where he earned a diploma in advanced accounting studies. He joined Cofiroute in 1983 and was appointed administrative director for specialized subsidiaries in 1989. From 1995 to 2004, he oversaw administrative and financial management at SGE-Verkehrsbau Union GmbH in Berlin and later Eurovia GmbH in Bottrop. In 2004, he joined Eurovia as head of mission reporting to senior management before being appointed to the Executive Committee in 2005.
SAFETY CULTURE

— MAKING A DAILY COMMITMENT TO OCCUPATIONAL HEALTH AND SAFETY

Wherever Eurovia operates around the world, its top priority is always safety. The company has reduced its accident frequency rate by half in ten years, and the severity rate by 25%.

— PARTNERSHIPS TO FOSTER SAFETY AND RESEARCH

In efforts to assess operation-related hazards on a continuous basis, Eurovia has built partnerships with various scientific establishments, including INRS (France’s national research and safety institute) and CHU de Grenoble (the city of Grenoble’s university hospital centre), to manage workers’ exposure to asphalt mixes. This spirit of cooperation has also given rise to a partnership with INERIS (France’s national institute for industrial settings and related hazards) to manage health hazards tied to its industrial activities.

312
EUROVIA GROUP ENTITIES WHICH ACHIEVED “ZERO-ACCIDENT” TARGET IN 2015

— A SAFETY POLICY AND APPROACH WITH GLOBAL COVERAGE

In 2015, Eurovia defined four safety-related Group-wide initiatives: subcontracting; near misses; training and management involvement; and static worksites on in-service roads. These initiatives represent the priorities and have been applied in all of the Group’s entities in France and at the international level.

In 2015, Eurovia held its fourth International Safety Day. On May 28, the company’s 38,000 employees and temporary and subcontractor staff stopped work and discussed the topic of potential worksite hazards and “near misses,” which is central to Eurovia’s safety and accident prevention policy.

In France, 84 divisions and sites were rewarded as part of the Eurovia safety challenge. Investment in a three-year safety plan is what allowed these divisions and sites to shrink accident frequency rates to below 5 and severity rates to below 0.5.

— PUTTING INNOVATION TO WORK FOR SAFETY

Every year, the Group introduces safety-related innovations around the world. In 2015, the PREVEN+ 3D immersive tool, safety strips on in-service roads (for projects where the client does not grant permission to stop traffic during works), and Stop/Go panel with a built-in camera (designed to prevent motorists from breaching safety barriers at worksites) all received prizes at the VINCI Innovation Awards.

— PARTNERSHIPS TO FOSTER SAFETY AND RESEARCH

— A SAFETY POLICY AND APPROACH WITH GLOBAL COVERAGE

— PUTTING INNOVATION TO WORK FOR SAFETY
CARAIB MOTO (Eurovia) and Sogea Martinique (VINCI Construction France) have just completed a design-build project for a reserved-lane public transit system in Martinique (French West Indies) as part of a partnership contract entrusted to Caraibus, a subsidiary of VINCI Concessions. In all, 400 men and women worked on this successful mandate, from the signing of the contract in November 2013 to delivery of the project in October 2015.

Every project is a commitment to local residents.
What’s your next move?

— BUILDING
FOR EUROVIA,
THIS MEANS...

...mobilizing multiple business lines
and combining established know-how
and innovative practices to design
and creating infrastructure that enables
the free flow of people and goods.
We build in partnership with local
communities, working closely with them
on a daily basis over the long term.

— FROM THE DESIGN
TO THE CONSTRUCTION
AND THE MAINTENANCE
OF TRANSPORT INFRASTRUCTURE

Eurovia consolidates its
presence in the United States,
where its integrated business model
— design, production,
earthworks, road construction,
and civil engineering — has
opened doors. Atlanta’s
Northwest Corridor, which
is a design-build project,
is in full swing.
In France, despite work
stoppage in winter,
the A63 widening scheme in
the Basque region was delivered
on time thanks to optimized
work methods.

— FOSTERING ECONOMIC
COMPETITIVENESS
AND STRENGTHENING
SOCIAL BONDS

As part of a consortium
of VINCI companies, Eurovia
completed earthworks,
roadworks, and developments
in the area around Matmut
Atlantique stadium (Bordeaux),
a new-generation multifunctional
sports facility that was opened
in May 2015. The stadium
will host five matches as part
of Euro 2016.
In the United States, Eurovia
used its expertise to bear on
four projects in Florida designed
to upgrade thoroughfares
to meet increases in traffic
volume.

- Canada - Marine infrastructure
  at Deltaport
- Slovakia - Reconstruction
  of the Old Bridge in Bratislava
- France - Renovation of taxiways
  at Toulouse-Blagnac airport
- France - LGV SEA Tours-Bordeaux
- Chile - Reconstruction at Taltal
- Lithuania - Delivery of the first
  section of “Rail Baltica”
— DELIVERING MOBILITY AND URBAN DEVELOPMENT SOLUTIONS

Time and time again, Eurovia’s teams have shown their ability, on the one hand, to create or renovate prestigious public spaces in various settings, ranging from La Défense in France to Pilsen, in the Czech Republic, a European Capital of Culture in 2015, and, on the other, to enhance through advanced civil-engineering skill sets the quality and performance of major industrial, logistical, and power-generating facilities.

- Germany - Two worksites at the foot of the Cologne Cathedral
- United Kingdom - Construction of the track for the Race of Champions, which was held in London in November 2015
- France - Construction of maturing cellars in Cognac

---

See the time-lapse video of the Queen Elizabeth Olympic Park Stadium transformed into a race track.

---

KEY FIGURES

37,000 WORKSITES EVERY YEAR
6,000+ MACHINERY AND EQUIPMENT
300 DESIGN OFFICES FOR PROJECT DESIGN
304 ROAD AND RAIL WORKS DIVISIONS

IN FACTS

NEW-GENERATION INFRASTRUCTURE

Eurovia’s full-service offer was on display on the new section of motorway D3 between Strážov and Bradno in Slovakia. Prior to new lane construction, the teams carried out drainage works, built a tunnel, three flyovers and a supporting road network, and installed motorway equipment. During the design phase (before work began), the teams devised the most optimal approach to carry out their tasks on site.

4.2 KM OF ROADWAY
500 EMPLOYEES MOBILIZED OVER 3 YEARS
SUCCESSFULL SYNERGIES IN NORTH AMERICA

Thanks to Eurovia’s local presence through Carmacks, its subsidiary in the neighbouring province of Alberta, VINCI was able to win a €1,000 million contract to finance, design, build, operate, and maintain for a period of 30 years a dual 2-lane bypass in Regina, the capital city of Saskatchewan in Canada. The bypass is 61 km long, including 37 km of new construction and 24 km of renovation. This is the province’s largest ever infrastructure project, and it will be completed in record time.

What is Eurovia’s development strategy for major projects in North America?

Paul-Gilles Parodi Major and complex projects are a priority for Eurovia, including public-private partnership (P3) and design-build projects. Our Group is advantageously positioned for these types of mandates: by targeting opportunities in proximity to our local operations, we can leverage our in-depth knowledge of local realities. Potential synergies with other VINCI business lines is something our clients also appreciate; they enhance our competitive edge and operational excellence, thereby reducing risk and ensuring overall project profitability.

What VINCI synergies are being applied to the Regina Bypass project?

Bruno Bernet There are many synergies since VINCI Concessions, VINCI Construction Terrassement, and Eurovia (through its subsidiary Carmacks) are all involved on this contract, in addition to two VINCI Construction subsidiaries for vertical drains and reinforced earth walls and VINCI Énergies for smart transport systems. In addition to this wealth of expertise, we carefully deploy our know-how through dialogue and mutual respect in order to create value.

Are P3 projects appropriate for major infrastructure needs?

Luis Palazzi At a time when public funding is drying up and projects are becoming increasingly complex, P3 allows communities to entrust the construction and operation of major projects to private operators. These private operators must deliver the work on time and on budget, manage future operating costs, provide maintenance services, and undertake any future major rehabilitation. These factors help ensure that users will receive the expected level of service from new infrastructure over the long term.

What VINCI synergies are being applied to the Regina Bypass project?

Bruno Bernet There are many synergies since VINCI Concessions, VINCI Construction Terrassement, and Eurovia (through its subsidiary Carmacks) are all involved on this contract, in addition to two VINCI Construction subsidiaries for vertical drains and reinforced earth walls and VINCI Énergies for smart transport systems. In addition to this wealth of expertise, we carefully deploy our know-how through dialogue and mutual respect in order to create value.

What is Eurovia’s development strategy for major projects in North America?

Paul-Gilles Parodi Major and complex projects are a priority for Eurovia, including public-private partnership (P3) and design-build projects. Our Group is advantageously positioned for these types of mandates: by targeting opportunities in proximity to our local operations, we can leverage our in-depth knowledge of local realities. Potential synergies with other VINCI business lines is something our clients also appreciate; they enhance our competitive edge and operational excellence, thereby reducing risk and ensuring overall project profitability.

What VINCI synergies are being applied to the Regina Bypass project?

Bruno Bernet There are many synergies since VINCI Concessions, VINCI Construction Terrassement, and Eurovia (through its subsidiary Carmacks) are all involved on this contract, in addition to two VINCI Construction subsidiaries for vertical drains and reinforced earth walls and VINCI Énergies for smart transport systems. In addition to this wealth of expertise, we carefully deploy our know-how through dialogue and mutual respect in order to create value.

What is Eurovia’s development strategy for major projects in North America?

Paul-Gilles Parodi Major and complex projects are a priority for Eurovia, including public-private partnership (P3) and design-build projects. Our Group is advantageously positioned for these types of mandates: by targeting opportunities in proximity to our local operations, we can leverage our in-depth knowledge of local realities. Potential synergies with other VINCI business lines is something our clients also appreciate; they enhance our competitive edge and operational excellence, thereby reducing risk and ensuring overall project profitability.

What VINCI synergies are being applied to the Regina Bypass project?

Bruno Bernet There are many synergies since VINCI Concessions, VINCI Construction Terrassement, and Eurovia (through its subsidiary Carmacks) are all involved on this contract, in addition to two VINCI Construction subsidiaries for vertical drains and reinforced earth walls and VINCI Énergies for smart transport systems. In addition to this wealth of expertise, we carefully deploy our know-how through dialogue and mutual respect in order to create value.

What is Eurovia’s development strategy for major projects in North America?

Paul-Gilles Parodi Major and complex projects are a priority for Eurovia, including public-private partnership (P3) and design-build projects. Our Group is advantageously positioned for these types of mandates: by targeting opportunities in proximity to our local operations, we can leverage our in-depth knowledge of local realities. Potential synergies with other VINCI business lines is something our clients also appreciate; they enhance our competitive edge and operational excellence, thereby reducing risk and ensuring overall project profitability.

What VINCI synergies are being applied to the Regina Bypass project?

Bruno Bernet There are many synergies since VINCI Concessions, VINCI Construction Terrassement, and Eurovia (through its subsidiary Carmacks) are all involved on this contract, in addition to two VINCI Construction subsidiaries for vertical drains and reinforced earth walls and VINCI Énergies for smart transport systems. In addition to this wealth of expertise, we carefully deploy our know-how through dialogue and mutual respect in order to create value.

What is Eurovia’s development strategy for major projects in North America?

Paul-Gilles Parodi Major and complex projects are a priority for Eurovia, including public-private partnership (P3) and design-build projects. Our Group is advantageously positioned for these types of mandates: by targeting opportunities in proximity to our local operations, we can leverage our in-depth knowledge of local realities. Potential synergies with other VINCI business lines is something our clients also appreciate; they enhance our competitive edge and operational excellence, thereby reducing risk and ensuring overall project profitability.

What VINCI synergies are being applied to the Regina Bypass project?

Bruno Bernet There are many synergies since VINCI Concessions, VINCI Construction Terrassement, and Eurovia (through its subsidiary Carmacks) are all involved on this contract, in addition to two VINCI Construction subsidiaries for vertical drains and reinforced earth walls and VINCI Énergies for smart transport systems. In addition to this wealth of expertise, we carefully deploy our know-how through dialogue and mutual respect in order to create value.

What is Eurovia’s development strategy for major projects in North America?

Paul-Gilles Parodi Major and complex projects are a priority for Eurovia, including public-private partnership (P3) and design-build projects. Our Group is advantageously positioned for these types of mandates: by targeting opportunities in proximity to our local operations, we can leverage our in-depth knowledge of local realities. Potential synergies with other VINCI business lines is something our clients also appreciate; they enhance our competitive edge and operational excellence, thereby reducing risk and ensuring overall project profitability.

What VINCI synergies are being applied to the Regina Bypass project?

Bruno Bernet There are many synergies since VINCI Concessions, VINCI Construction Terrassement, and Eurovia (through its subsidiary Carmacks) are all involved on this contract, in addition to two VINCI Construction subsidiaries for vertical drains and reinforced earth walls and VINCI Énergies for smart transport systems. In addition to this wealth of expertise, we carefully deploy our know-how through dialogue and mutual respect in order to create value.

What is Eurovia’s development strategy for major projects in North America?

Paul-Gilles Parodi Major and complex projects are a priority for Eurovia, including public-private partnership (P3) and design-build projects. Our Group is advantageously positioned for these types of mandates: by targeting opportunities in proximity to our local operations, we can leverage our in-depth knowledge of local realities. Potential synergies with other VINCI business lines is something our clients also appreciate; they enhance our competitive edge and operational excellence, thereby reducing risk and ensuring overall project profitability.

What VINCI synergies are being applied to the Regina Bypass project?

Bruno Bernet There are many synergies since VINCI Concessions, VINCI Construction Terrassement, and Eurovia (through its subsidiary Carmacks) are all involved on this contract, in addition to two VINCI Construction subsidiaries for vertical drains and reinforced earth walls and VINCI Énergies for smart transport systems. In addition to this wealth of expertise, we carefully deploy our know-how through dialogue and mutual respect in order to create value.

What is Eurovia’s development strategy for major projects in North America?

Paul-Gilles Parodi Major and complex projects are a priority for Eurovia, including public-private partnership (P3) and design-build projects. Our Group is advantageously positioned for these types of mandates: by targeting opportunities in proximity to our local operations, we can leverage our in-depth knowledge of local realities. Potential synergies with other VINCI business lines is something our clients also appreciate; they enhance our competitive edge and operational excellence, thereby reducing risk and ensuring overall project profitability.

What VINCI synergies are being applied to the Regina Bypass project?

Bruno Bernet There are many synergies since VINCI Concessions, VINCI Construction Terrassement, and Eurovia (through its subsidiary Carmacks) are all involved on this contract, in addition to two VINCI Construction subsidiaries for vertical drains and reinforced earth walls and VINCI Énergies for smart transport systems. In addition to this wealth of expertise, we carefully deploy our know-how through dialogue and mutual respect in order to create value.

What is Eurovia’s development strategy for major projects in North America?

Paul-Gilles Parodi Major and complex projects are a priority for Eurovia, including public-private partnership (P3) and design-build projects. Our Group is advantageously positioned for these types of mandates: by targeting opportunities in proximity to our local operations, we can leverage our in-depth knowledge of local realities. Potential synergies with other VINCI business lines is something our clients also appreciate; they enhance our competitive edge and operational excellence, thereby reducing risk and ensuring overall project profitability.

What VINCI synergies are being applied to the Regina Bypass project?

Bruno Bernet There are many synergies since VINCI Concessions, VINCI Construction Terrassement, and Eurovia (through its subsidiary Carmacks) are all involved on this contract, in addition to two VINCI Construction subsidiaries for vertical drains and reinforced earth walls and VINCI Énergies for smart transport systems. In addition to this wealth of expertise, we carefully deploy our know-how through dialogue and mutual respect in order to create value.

What is Eurovia’s development strategy for major projects in North America?

Paul-Gilles Parodi Major and complex projects are a priority for Eurovia, including public-private partnership (P3) and design-build projects. Our Group is advantageously positioned for these types of mandates: by targeting opportunities in proximity to our local operations, we can leverage our in-depth knowledge of local realities. Potential synergies with other VINCI business lines is something our clients also appreciate; they enhance our competitive edge and operational excellence, thereby reducing risk and ensuring overall project profitability.

What VINCI synergies are being applied to the Regina Bypass project?

Bruno Bernet There are many synergies since VINCI Concessions, VINCI Construction Terrassement, and Eurovia (through its subsidiary Carmacks) are all involved on this contract, in addition to two VINCI Construction subsidiaries for vertical drains and reinforced earth walls and VINCI Énergies for smart transport systems. In addition to this wealth of expertise, we carefully deploy our know-how through dialogue and mutual respect in order to create value.

What is Eurovia’s development strategy for major projects in North America?

Paul-Gilles Parodi Major and complex projects are a priority for Eurovia, including public-private partnership (P3) and design-build projects. Our Group is advantageously positioned for these types of mandates: by targeting opportunities in proximity to our local operations, we can leverage our in-depth knowledge of local realities. Potential synergies with other VINCI business lines is something our clients also appreciate; they enhance our competitive edge and operational excellence, thereby reducing risk and ensuring overall project profitability.

What VINCI synergies are being applied to the Regina Bypass project?

Bruno Bernet There are many synergies since VINCI Concessions, VINCI Construction Terrassement, and Eurovia (through its subsidiary Carmacks) are all involved on this contract, in addition to two VINCI Construction subsidiaries for vertical drains and reinforced earth walls and VINCI Énergies for smart transport systems. In addition to this wealth of expertise, we carefully deploy our know-how through dialogue and mutual respect in order to create value.
ETF, a subsidiary of Eurovia, is providing maintenance services for a period of 20 years for railway infrastructure, including tracks and catenaries, for Lines 3 and 6 of the metro system in Santiago, Chile. This represents 76 km of electrified tracks and 15 km of tracks for two depots.

Infrastructure is a shared and precious asset. We take care of it over the long term and meet user expectations on a daily basis.
What’s your next move?

— MAINTAINING FOR EUROVIA, THIS MEANS...

...providing simple, cost-effective, and ease-to-apply solutions that foster the circular economy through various in-place roadway-recycling techniques, including cold mixes – such as Recyclovia – and warm mixes. Eurovia also provides full-service offers that include diagnostics, works, and even financing.

— CONTRACTS THAT INCREASINGLY EXTEND UPSTREAM AND DOWNSTREAM RESPECTIVELY FROM THE DESIGN AND CONSTRUCTION PHASES

In 2015, as part of contractual agreements, Eurovia provided upkeep and maintenance services for 70,000 km of roadway in various countries in Europe and the Americas. These agreements included purchase-order mandates, design-build-maintain contracts, and public-private partnership (P3) projects. The latter, which cover time frames of 25 to 30 years, are of growing interest to communities that seek partners able to offer financing and infrastructure-management services and guarantee high-quality services for end users.

— BEYOND TRADITIONAL UPKEEP AND MAINTENANCE, WE DELIVER INNOVATIVE NETWORK-MANAGEMENT SERVICES

In support of its role as network manager in P3 contracts, Eurovia implements specific and highly responsive problem-detecting and problem-solving tools of all kinds of situation, including weather conditions (winter maintenance, in Canada for example), accidents, road deterioration, and waste. In the Borough of Hounslow in Greater London – incidents and complaints are recorded and investigated by an information system that ensures total traceability. Whenever problems emerge, a control centre informs teams in the field for immediate corrective action.
What’s your next move?

— SMART COATINGS
FOR INFORMED AND EFFECTIVE INFRASTRUCTURE MANAGEMENT

Infrastructure-maintenance contracts with performance stipulations allow the United Kingdom, Spain, Romania, Chile, the United States, and perhaps other countries in the future, to optimize the use of resources dedicated to network maintenance.

Such contracts benefit from Eurovia’s extensive capacity to innovative, especially with regard to infrastructure sustainability and safety. Recent innovations include the Viagrip® smart coating, which enhances skid-resistance, and Smartvia, a system that facilitates road infrastructure management by collecting real-time data, thus quantifying “the health” of the asset.

What’s your next move?

IN FACTS

ADJUSTING TO ALL ENVIRONMENTS

In northern Chile’s desert climate, asphalt mixes are subjected to the extreme heat and high salt content in the air typical of arid zones.

As a result, roadways crack, and the wearing course loses texture. As part of its long-term maintenance contracts, Bitumix, Eurovia’s Chilean subsidiary, fills in cracks in the roadway twice a year and replaces the wearing course every five or six years.

* Source: OCDE

KEY FIGURES

70,000 Km
OF ROADS UNDER MAINTENANCE AND SERVICES CONTRACTS

0.8%
PORTION OF THE GNP OF OECD COUNTRIES DEDICATED TO TRANSPORT INFRASTRUCTURE INVESTMENT*

75%
ESTIMATED VALUE OF FRANCE’S INFRASTRUCTURE AS A PORTION OF ITS GNP**

IN FACTS

ADJUSTING TO ALL ENVIRONMENTS

In northern Chile’s desert climate, asphalt mixes are subjected to the extreme heat and high salt content in the air typical of arid zones.

As a result, roadways crack, and the wearing course loses texture. As part of its long-term maintenance contracts, Bitumix, Eurovia’s Chilean subsidiary, fills in cracks in the roadway twice a year and replaces the wearing course every five or six years.

* Source: OCDE

12 months
IS, ON AVERAGE, HOW LONG ROAD MARKINGS LAST IN ARID ZONES CHILE
FINANCING COMMUNITY PROJECTS WITH CROWDFUNDING

Collectivity.fr, the France’s first crowdfunding platform entirely dedicated to financing public projects, was launched in 2015. The borrowers are communities seeking to build local projects, and the lenders are individuals.

What difficulties do communities encounter these days in terms of investment?
Julien Quistrebert: The decline in state and public funding acts as a brake on their capacity to invest. From the borrower’s perspective, bank interest rates are low, but this situation won’t necessarily last. And small communities are having trouble finding bank financing under €100,000. We estimate that unmet funding needs range from €2,000 to €4,000 million. As a result, communities are deferring their investment-driven projects, which is unfortunate for their regions and for employment.

Why are you confident in this approach?
Julien Quistrebert: The main objective is to raise capital beyond the banking sector. With this risk-free product, we are targeting the bulk of the savings market. In addition, our product possesses features that are increasingly sought-after: it is socially responsible and transparent. Some lenders will also be users of the infrastructure whose construction is being funded. That gives us plenty of confidence. Regulations are not yet totally auspicious for the crowdfunding of public projects, but they do not impede it and they are sure to evolve favourably.

How is crowdfunding a solution?
Julien Quistrebert: It provides communities with a new source of significant funding without resorting to banks. This is an approach that should not be dismissed if we keep in mind the 2008 crisis, Dexia, and the communities that suffered due to toxic loans. In this case, lenders invest their savings in well-defined projects probably located in their own region. For the communities involved in this approach, this is a unique opportunity to communicate about their projects and show popular support for it. The crowdfunding process can even be used as a marketing strategy to promote investment in public projects.

On December 18, 2015, RD120 was opened for service. This new departmental route was built by Eurovia and VINCI Construction Terrassement teams. This project is one of the first public-private partnerships established with a French departmental authority to build a roadway infrastructure.

The new departmental route is closer to motorways A20 and A89. It facilitates the flow of traffic between the Cantal and Corrèze departments with enhanced road-safety conditions. The P3 contract, which was signed in July 2013, spurred the building of the 10-km route in record time, thanks to the more efficient management of construction activities and administrative procedures relating to preventive archeology and environmental protection requirements. The contract covered the financing during works phase, the design, construction and maintenance for a total of €23 million. It provides the community with guaranteed pricing and service levels for a 20-year period.
RAISING THE QUALITY OF PUBLIC SPACES WHILE REDUCING COSTS

The Borough of Hounslow in Greater London has opted for a private-public partnership to renovate and maintain its public spaces for a period of 25 years. The Mayor of Mulhouse stressed the importance of urban maintenance. What role will public-space quality play in urban regeneration?

Brendon Walsh Real estate players are paying close attention to this. Everything the community does or does not do directly impacts the value of its own investments. In this sense, we were right to call on the private sector. The P3 contract signed with Eurovia, which has already meant an immense improvement in roadways and public lighting, has allowed us to revolutionize our city centres and areas of activity over the past decade.

What do you expect in the future from this partnership?

B.W. That quality remains a priority and that we will not be disappointed. However, we will have to step up our efforts to ensure the same level of service with lower budget resources. I am really counting on the ability of our partners to innovate in terms of techniques, materials, and technologies: we must reduce costs in order to avoid problems in the future.

Why is the implementation of a transport infrastructure maintenance strategy a key issue for communities?

Jean Rottner To ensure a region’s power of attraction and its ability to spark innovation and provide a high-quality environment, we must apply an urban optimization economic model that requires us to monitor and control our transport offer and related dedicated infrastructure. It’s a matter of responding to energy-related challenges and providing enabling conditions for new urban mobility practices based on smart-city technologies and low-impact, positive-energy transport modes.

In Mulhouse, smart roadways and low-impact and natural infrastructure will soon be developed around a “green diagonal” space in the city centre. To ensure this project’s success, I have opted for a maintenance strategy for current structures, which is a more reliable and less costly option that is fully integrated with our long-term vision for development in our city. The multi-year roadway maintenance action plan will require strong political decisions and active partnerships with industry professionals, such as Eurovia. This is about implementing high added value techniques and using new materials in areas facing economic and regulatory constraints. It is up to us to support innovative urban management solutions.

Jean Rottner, Mayor of Mulhouse, Vice-President, Mulhouse Alsace Agglomération President, Fédération Nationale des Agences d’Urbanisme (FNAU)

Brendon Walsh, Director, Regeneration, Economic Development and Environment for the London Borough of Hounslow
We act responsibly in our management of natural resources, biodiversity, and landscaping.

In October 2015, a new gravel quarry in the Isère department (France) was inaugurated with 185 guests in attendance. The opening provided an opportunity to welcome local residents and students from the schools in the area.
What’s your next move?
— PRODUCING FOR EUROVIA, THIS MEANS...

...ensuring the availability of raw materials to build public utility equipment and infrastructure. It means constantly adjusting our techniques and processes to meet environmental requirements and community expectations. It means recycling to protect natural resources.

— MATERIAL RESOURCES: A MAJOR CHALLENGE WELL UNDER CONTROL
Quarrying is Eurovia’s second business line, placing the Company among the European leaders in material production. Access to raw materials has become increasingly complex, and Eurovia works in both directions to meet regional needs: flawless processing at its production sites, on the one hand, and mass recycling of construction materials, on the other, in efforts to value 100% of our resources.

— GRANULAT+ OR HOW TO APPLY THE PRINCIPLES OF THE CIRCULAR ECONOMY TO MATERIALS
On average, Eurovia already uses 15 to 20% of recycled materials and industrial by-products in roadway construction, and up to 60% in some cases. To promote recycling further, Eurovia collects waste materials and transforms them at its extraction sites. This is the Granulat+ approach, which has allowed quarries to become genuine resources for recycling materials. The increasingly popularity of Granulat+ throughout France earned it a VINCI Innovation Award in 2015.

— GRANULAT+ OR HOW TO APPLY THE PRINCIPLES OF THE CIRCULAR ECONOMY TO MATERIALS

— MULTIMODAL PLATFORMS STRUCTURED AROUND RAIL AND WATER
As much as possible, Eurovia transports aggregates by water and rail. For long-distance transport, the Company has established material storage, transformation, and sales platforms that use train and waterway transport. This is the case in Gennevilliers and Gonfreville (France), and Antwerp (Belgium) – a strategic distribution hub for markets in Northern Europe – and Metków in Poland.
What’s your next move?

— CLOSE COOPERATION AMONG LOCAL STAKEHOLDERS

Quarries must meet environmental specifications, which are systematically developed and monitored along with communities and local environmental protection associations. In France, quarries use various tools such as UNICEM’s Référentiel de progrès environnemental (environmental progress framework of the French union of quarry and building materials industries) or ecological quality index designed by the national museum of natural history in Paris, which is currently in the process of being deployed on Eurovia sites.

KEY FIGURES

<table>
<thead>
<tr>
<th>QUARRIES</th>
<th>ASPHALT-PRODUCTION PLANTS</th>
<th>INDUSTRIAL DIVISIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>328</td>
<td>96</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RECYCLING AND RE-PURPOSING FACILITIES</th>
<th>BINDER-PRODUCTION PLANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>154</td>
<td>47</td>
</tr>
</tbody>
</table>

Materials can account for up to 40% of infrastructure cost.

Aggregates rank second among the most frequently used resources in the world, after water.

<table>
<thead>
<tr>
<th>ANNUAL AGGREGATES PRODUCTION</th>
<th>ASPHALT PRODUCTION</th>
<th>THOUSAND TONS OF BINDER EVERY YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 MT</td>
<td>21 MT</td>
<td>700</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>YEARS OF AGGREGATES PRODUCTION RESERVE</th>
<th>THE NUMBER OF YEARS NEEDED TO OPEN A QUARRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>53</td>
<td>10</td>
</tr>
</tbody>
</table>
In what way is material transport a major issue for Grand Paris Express?

Claude Samson, President of AFILOG, an association that brings together all trades in the supply chain and logistics real estate.

In your opinion, what assets will enable Eurovia to rise to these challenges?

C.S. Railways and waterways must be used as much as possible. It is unfortunate that the most recent tramway lines in the Île-de-France region were not designed for carrying goods or materials to the city centre. Failing this, there would be opposition from the public to this transport system, which, nevertheless, is now expected. This is an issue both for society and the environment.

What does AFILOG advocate?

C.S. Railways and waterways must be used as much as possible. It is unfortunate that the most recent tramway lines in the Île-de-France region were not designed for carrying goods or materials to the city centre. However, Ports de Paris is striving to resolve this problem by creating new ports. So, at Vitry-sur-Seine, the port at Ardoines will first be used by the Line 15 project. Later, as planned, it will be used by companies in the area, including a fresh-food wholesaler.

In your opinion, what assets will enable Eurovia to rise to these challenges?

C.S. Given the timeframe and scope of the project, it makes sense to invest in infrastructure designed for the transport of materials, especially since this would result in the development, across Greater Paris as a whole, of an Eurovia-owned logistics framework that would be useful well beyond the projects. Eurovia is an infrastructure specialist, but the Company is also expert in managing project logistics and building public-private partnerships. If there is a company that is in a good position to meet these challenges, it is, without a doubt, Eurovia.

In what way is material transport a major issue for Grand Paris Express?

Claude Samson, the President of AFILOG, states that it is critical. Société du Grand Paris and the contracting authority STIF both recognize the need to adapt a true logistics organization to limit disruptions stemming from the transport of materials. Failing this, there would be opposition from the public to this transport system, which, nevertheless, is now expected. This is an issue both for society and the environment.
Signage, information, safety, and ease of use enhance the value of transport and urban infrastructure.
--- EQUIPPING FOR EUROVIA, THIS MEANS...---

... enhancing the functionality of infrastructure and public spaces. It means developing urban settings and roadways, improving road safety, and easing traffic flow.Eurovia delivers global and custom solutions that link infrastructure and users.

--- ON THE ROAD TO SMART MOBILITY---

Equipment supplier Signature Group contributes to many Eurovia roadway and urban-development projects, thereby helping the latter provide clients with a full-service offer. Some of Signature Group’s remarkable achievements in 2015 include the dynamic parking guidance system for car parks in the city of Lusail® (Qatar).

In addition, Signature Group contributes actively to Eurovia’s innovation dynamics, for example, the Vega solar-powered station for electric bikes and the Optipark® fast-parking solution.

Currently, other projects are under study in conjunction with start-ups, which aim to add value to Signature Group’s offer through digital and connected systems.

One of Signature Group’s strategic areas of development is intelligent transport systems, which already include variable-message panels, dynamic guidance systems, metering stations, and so on. Signature Group recently launched a research program with several partners to determine how to equip roadways in preparation for the self-driving vehicles of the future.

--- IN FACTS---

**KEY FIGURES FOR SIGNATURE GROUP**

- 10,000 WORKSITES A YEAR
- 17 SUBSIDIARIES IN FRANCE AND AROUND THE WORLD
- 80 COUNTRIES TO WHICH SIGNATURE GROUP EXPORTS
- 8 INDUSTRIAL SITES

**EUROVIA’S EQUIPMENT SUPPLIER**

Within Eurovia, Signature Group manages 17 companies specializing in 8 complementary fields and employing 1,400 people in 8 countries. Together, they are present in practically all market segments for urban and road equipment. In France, Signature Group also has a network of 30 sites, providing a strong local and national presence. Its proximity to clients allows Signature Group to develop and implement comprehensive solutions that meet their needs.
FROM EQUIPMENT TO CUSTOMER SERVICE

Eurosigns, a subsidiary of Eurovia UK Ltd, specialises in customer service through two main activities – signs and lettering – carried out for multiple industries and a variety of customer base.

Initially, Eurosigns produced road signs and panels. Later, the company diversified by creating its RVG brand focusing on vehicle graphics. RVG started with emergency services conspicuity vehicle graphics before branching out into commercial livery and personalized markings.

In 2015, Eurosigns provided signage components to the organizers of the Rugby World Cup, held in the United Kingdom. This event enabled the company to consolidate the experience it acquired during the 2012 Olympic Games held in London.

OFFERING MORE SERVICES BY ENDOWING THE CITY WITH EQUIPMENT

What do communities expect with respect to parking?

Benjamin Barataud

Throughout the world, communities are looking for new urban land-use planning approaches by improving traffic flow, building cities upward, and finding new sources of funding. In France, in 2018, comprehensive parking management (rates, payment amounts, recovery, and so on) will be entrusted to mayors. It will be a real revolution, leading to even more needs for monitoring and optimizing public spaces. Cities will want to reduce the impact of these worksites as well as construction and equipment-operation costs.

How does Optipark meet these needs?

B.B. Each space has a connected post, which detects the arrival of a vehicle and triggers a countdown. It emits a green light signal during the authorized parking time, and then turns red when that time expires. A remote payment option is available. A QR code enables users to see the parking time remaining on their mobile device and easily find their vehicle. Optipark is very easy to install, robust, and customizable according to the community. It makes it easier to control and report in real time on space occupation. This system is simple to deploy, even for small parking areas.

— A BUSINESS ACCELERATOR WITH OPEN INNOVATION INSTITUTE

The Open Innovation Institute is a Centrale Supélec chair whose purpose is to bring together innovative startups and corporations and provide them with methodological support for developing common projects. Signature Group participates in this business accelerator. The goal is to identify and develop new offerings for smart equipment and urban land-use planning to meet the needs and expectations of customers. Three startups were selected as part of a call for projects launched in the summer of 2015.

- ECOV – for its short-distance carpooling service with dedicated areas, destination display, and an application that provides a connection and payment service
- Akoustic Arts – for targeted sounds in public spaces, e.g. for visually impaired users
- Pysae – for a simple solution for real-time monitoring of bus networks, displays at bus stops, adapted to rural zones

In 2016, the viability of these projects will be tested, with the common objective of unifying urban equipment, digital applications, and improved user services.

What’s your next move?

What’s your next move?

Benjamin Barataud, Director of Optifib (Signature Group)

Optifib (a subsidiary of Eurovia) created Optipark, a simple and quick urban parking-management solution.

FROM EQUIPMENT TO CUSTOMER SERVICE

Eurosigns, a subsidiary of Eurovia UK Ltd, specialises in customer service through two main activities – signs and lettering – carried out for multiple industries and a variety of customer base.

Initially, Eurosigns produced road signs and panels. Later, the company diversified by creating its RVG brand focusing on vehicle graphics. RVG started with emergency services conspicuity vehicle graphics before branching out into commercial livery and personalized markings. In 2015, Eurosigns provided signage components to the organizers of the Rugby World Cup, held in the United Kingdom. This event enabled the company to consolidate the experience it acquired during the 2012 Olympic Games held in London.
From the laboratory to the field, from production to maintenance, innovation is the common thread that runs through all our business lines.

Inaugurated in 2003, Eurovia’s international research centre (Mérignac-Bordeaux) is the most recent centre dedicated to roadworks. It covers 4,000 m², including 1,800 m² of laboratory space. With its unique equipment in Europe, 250 different tests can be conducted, generating 4,500 tests per year, through its team of 35 researchers. The centre works with a worldwide technical network of 25 laboratories and 650 engineers and technicians.
What’s your next move?

— FROM DURABLE ROADS TO SMART ROADS: A PATH STUDDED WITH INNOVATION

Eurovia dedicates 65% of its R&D budget to improving sustainable economic development – protecting the natural environment, enhancing safety, and extending the longevity of infrastructure. Another key area of research is future or “fifth-generation” roadways. A tangible example of development is smart roads. With Smartvia (roads) and Smartvia Track (railways), Eurovia is at the leading edge of real-time, digital-sensor-aided collection and processing of information on the behaviour and state of infrastructure. In 2015, Smartvia Cryo, was born, an energy-independent and wireless sensor that is installed via core drilling into existing roads. The information it provides allows for appropriate steps to be taken to prevent road deterioration.

— COLLABORATIVE DYNAMICS FOR EFFECTIVE SHARING

Every year, some 20 R&D projects are launched, most often in partnership with leading schools, universities, institutional players, industries, and start-ups. The research centre and technical network are integrated worldwide, right down to the local divisions. This organization allows ideas to move quickly from testing to industrialization and facilitates the dissemination of innovations.

... developing new products and procedures every year that respond quickly to the many expectations of our clients and society. It also means being a leader in finding future mobility solutions.

— INNOVATING FOR EUROVIA, THIS MEANS...

161 PATENTS BY THE END OF 2015

65% PROPORTION OF THE R&D BUDGET ALLOCATED TO SUSTAINABLE DEVELOPMENT

250 PROJECTS

€4.5 M R&D BUDGET

IN FACTS

NOVATHERM: THE POWER-GENERATING ROADWAY

Eurovia has developed Novatherm, a roadway solution that features built-in thermal sensors designed to capture heat energy from two sources, namely, geothermal and solar energy. A result, in winter, these energy sources can be used as a snow-removal solution (melting snow on the roadway). In summer, this energy can provide heating to nearby infrastructure. In this manner, the roadway acts as an energy-exchanging device with the added benefits of being silent and invisible. Novatherm distinguished itself by earning a VINCI Innovation Award in 2015.

PAPYRUS TOUCH

Papyrus, a Eurovia software that enables worksite supervisors to enter their reports via their tablets, is used in about a dozen countries and provinces. In 2015, Papyrus Touch was launched, a new scalable solution that uses the full potential of touch screen tablets and their connectivity.
OPENING BID FOR TENDERS TO VARIANTS AS A MEANS OF FOSTERING INNOVATION

To bring innovation to public projects, variant bids are increasingly considered a useful tool in competitive tendering to promote innovative approaches designed to deliver enhanced value, thereby reassuring public sector clients. Accordingly, Professor Zander is working on a Franco-German initiative, in which Eurovia is taking part, designed to facilitate the implementation of a European analytical design method.

Should bids for tenders be more open to variants?
Ulf Zander: To my mind, feedback from different projects, both innovative and traditional, shows that variety offer a promising route. Openness to new products and processes should enable all project participants to work together on implementing innovative solutions. In spite of all the challenges that this involves, I am convinced that the potential gains are extremely interesting both economically and financially.

BAST (German Federal Highway Research Institute) and IFSTTAR (French institute for the science and technology of transport, urban development, and networks) are working together on road-structure design. How is this research going?
U.Z.: This work, which started several years ago, focuses on the sharing of knowledge and practices and on providing a better understanding of the differences between the two countries. For the purposes of comparison, calculations were performed concurrently using French and German methods. In concrete terms, this involves establishing common positions regarding the use of rational analytical design methods.

What future benefits do you expect?
U.Z.: I believe that it is high time to replace empirical methods, as used in Germany in road construction, with analytical approaches. It is the only way to rise to the challenges that will emerge in the near future and quickly and effectively benefit from our engineers’ enhanced expertise. At the same time, we will have to improve quality management and construction methods. The joint efforts of administrative bodies, industry, and specialized research institutes will then encourage the development of methods for building sustainable, high-quality roads, thus contributing to the increased availability of road infrastructure. •
Since 2010, Carrières et ballastières de Normandie (Eurovia) has restored the natural environment of its gravel quarry in Yville-sur-Seine (Normandy, France). This initiative has already helped to restore wet grasslands on 6 ha of the ballast pits. An additional 25 ha will be restored in 2016.

Our techniques and processes are constantly developing to provide better protection to resources, and the environment.
What’s your next move?

— SUSTAINING FOR EUROVIA, THIS MEANS...

...reconciling economic activities with protecting, natural resources, and the environment. It means bringing together employees, partners, and local residents in a constant process of innovation and progress, in all of the Group’s business lines.

— SUSTAINABLE DEVELOPMENT, THE GUIDING THEME FOR INNOVATION

Eurovia’s highly integrated organization fosters the dissemination of a strong sustainable development culture through a stream of constant innovation in terms of technologies, processes, and management. All business lines are involved: roadworks, with the economic use of materials to make roads, for example; maintenance, with the geothermal heating of roads, which does away with winter salting; and aggregate production through the deployment of Granulat+, a process that allows for 100% recovery of resources – natural quarry deposits, and inert worksite waste materials.

— ENVIRONMENTAL EXCELLENCE

In 2015, Eurovia devised an “Environmental Excellence” label. At labelled worksites, Eurovia is committed to implementing environmentally friendly measures based on the best practice of the sector. The “Environmental Excellence” label sets objectives to reach in five areas in accordance with local conditions: water and soil, greenhouse gases, waste, biodiversity, and relations with local residents.

— ACCEPTABILITY FOR OUR ACTIVITIES, A MAJOR ISSUE

Project acceptability has led to many managerial innovations, such as these two local cooperative approaches, which won a VINCI Innovation Award in 2015: evaluation by local residents close to road-maintenance sites in the Isle of Wight in the United Kingdom – based on dialogue and rules for appropriate interaction between work teams and local residents and stakeholders during the project’s operational phase – and restoration of wet grasslands at a gravel pit in Normandy in conjunction with the scientific community.
What’s your next move?

— BIODIVERSITY: A SUCCESSFUL PARTNERSHIP WITH FRANCE’S NATIONAL MUSEUM OF NATURAL HISTORY

In 2015 in France, the ecological quality index (EQI) for quarries, developed and tested with scientific support from the museum, had a very promising deployment. Starting in 2016, the partnership, which has been renewed for three years, will focus on the environmental quality of worksites. The EQI was tested in six Eurovia quarries before being extended to six additional sites in 2015. This deployment is fostered by EQI training provided to local partners by the museum.

— DESIGNING SUSTAINABLE DEVELOPMENTS

Through its subsidiary Cognac TP, Eurovia has developed eco-friendly engineering expertise to provide environmentally friendly features on infrastructure construction and rehabilitation projects (reroute waterways, apply offsetting measures, develop waterworks, and build wildlife crossings and fish passes) and to restore natural habitats (restore waterways, level or install weirs).

KEY FIGURES

<table>
<thead>
<tr>
<th>Metric</th>
<th>Percentage</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>63%</td>
<td>OF OUR PRODUCTION OF AGGREGATES COMES FROM ISO 14001 CERTIFIED QUARRIES</td>
<td></td>
</tr>
<tr>
<td>6.1 MT</td>
<td>OF MATERIALS RECYCLED IN 2015</td>
<td></td>
</tr>
<tr>
<td>52%</td>
<td>OF QUARRIES IN FRANCE HAVE JOINED FORCES TO CREATE A LOCAL COOPERATION AND MONITORING COMMISSION</td>
<td></td>
</tr>
<tr>
<td>30%</td>
<td>OF QUARRIES IN FRANCE ARE INVOLVED IN PARTNERSHIPS WITH LOCAL NATURALISTS</td>
<td></td>
</tr>
<tr>
<td>11,162</td>
<td>pieces of data on flora and fauna provided by Eurovia’s French quarries to add to the national natural heritage inventory</td>
<td></td>
</tr>
<tr>
<td>63%</td>
<td>OF OUR PRODUCTION OF AGGREGATES COMES FROM ISO 14001 CERTIFIED QUARRIES</td>
<td></td>
</tr>
<tr>
<td>30%</td>
<td>OF QUARRIES IN FRANCE ARE INVOLVED IN PARTNERSHIPS WITH LOCAL NATURALISTS</td>
<td></td>
</tr>
<tr>
<td>52%</td>
<td>OF QUARRIES IN FRANCE HAVE JOINED FORCES TO CREATE A LOCAL COOPERATION AND MONITORING COMMISSION</td>
<td></td>
</tr>
<tr>
<td>6.1 MT</td>
<td>OF MATERIALS RECYCLED IN 2015</td>
<td></td>
</tr>
<tr>
<td>11,162</td>
<td>pieces of data on flora and fauna provided by Eurovia’s French quarries to add to the national natural heritage inventory</td>
<td></td>
</tr>
<tr>
<td>79%</td>
<td>OF QUARRIES IN FRANCE USE THE ENVIRONMENTAL PROGRESS REFERENCE TOOL FROM THE UNICEM ENVIRONMENTAL CHARTER</td>
<td></td>
</tr>
<tr>
<td>9,693 h</td>
<td>OF ENVIRONMENTAL AWARENESS TRAINING</td>
<td></td>
</tr>
</tbody>
</table>
BIODIVERSITY: A NEW CHALLENGE FOR QUARRY OPERATORS

The “Danger” extraction site in the Vendée region is one of the first sites where the ecological quality index (EQI) was applied. This tool was developed by France’s national museum of natural history, and its appropriateness for Eurovia site has been validated. CPIE Sèvre et Bocage (an organization in the Vendée region dedicated to nature conservation and environmental education) was selected to deploy it on this extraction site.

What is EQI?

Laurent Desnouhes It is a tool for evaluating biodiversity that was designed for developed sites. After identifying and counting the species present at a given site, we assign points based on thirteen criteria. These criteria are divided into three groups: diversity, natural heritage — in other words, the presence of rare, threatened or protected species — and function of the site within a broader environmental setting. The results are described in a report with supporting arguments. The report also contains our recommendations with respect to environmental development and management measures.

What were the results of the evaluation?

Claire Boucheron The site received a rating of 72/100, which is rather good. And the result for bird conservation, 10 out of 10, was excellent. The diversity of natural habitats and micro-habitats is interesting. Paradoxically, human activities can improve biodiversity in “drastic” environments, such as solid-rock quarries.

What were the highlights of your collaboration with the site operator?

Laurent Desnouhes and Claire Boucheron First of all, the quarry manager was very involved. It was not just a discussion among environmentalists. Next, our counterparts demonstrated great interest in the results and our recommendations. We felt they were committed to improving their rating! And they can do it since it involves rather simple management steps, including not removing water from wetland areas, leaving old buildings open for owls to nest in, removing invasive species. Ideally, employees would be trained to recognize wildlife and plant species. Since they’re the first to spot them, they’ll be even more motivated to respect adequate protective measures if they understand the reasons for doing so.

ENERGY TRANSITION IS MOVING FORWARD

Eurovia is committed to implementing an ambitious global plan, led by the Equipment department, to save energy in all of its business lines and countries in which it operates. Many of the selected solutions rely on digital tools. These tools are built into vehicles or machinery and monitor consumption in real time. When used in combination with eco-driving training, they can lead to fuel savings of up to 8%. These tools also help to optimize the distances covered. Gradual equipment renewal and controlled shutdown of inactive machines at worksites will eventually reduce idling time by up to 50%. In asphalt-production facilities, employees are trained to save energy. In addition, the deployment of "econometers," showing consumption rates in real time, makes it easier to adjust settings. Other solutions are being defined to reduce energy consumption and losses for each component at our facilities.

4,500,000 Litres
Drop in fuel consumption from 2014 to 2015

13,000 MWH
Drop in total energy consumption (gas and electricity) from 2014 to 2015

16,000 tonnes CO₂ EQ
Drop in greenhouse gas emissions from 2014 to 2015
What’s your next move?