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2018 ANNUAL REPORT | WE ARE THE NEW GENERATIONS OF ENTREPRENEURS



# WE ARE THE NEW GENERATIONS OF ENTREPRENEURS

2018 ANNUAL REPORT







# **WE ARE THE NEW GENERATIONS OF ENTREPRENEURS**

**We believe in the strength of the team,  
we thrive with and for our customers,  
we move forward continuously  
and push back our own boundaries,  
we look to the future with confidence  
and optimism, we apply our expertise  
with passion and never compromise  
on standards, we focus our energies  
for the benefit of all new generations,  
and we build structures that make  
the world a better place.**



P.6

WE ARE

**DECISIVELY**

**DIFFERENT**

WE ARE

**PASSIONATE**

**ABOUT PEOPLE**

P.18

**365 DAYS**  
OF ENTREPRENEURS



P.30

WE ARE

**FINANCIAL**

**SO SOUND**

P.64

WE ARE

**SERIOUSLY**

**ADVENTUROUS**



P.40

WE ARE

**SINCERELY**

**COMMITTED**

P.54



WE ARE  
**DECISIVELY**  
**DIFFERENTS**



## 7 CORE BUSINESSES IN CONSTRUCTION & CIVIL ENGINEERING



## Serving regions and projects

NGE IS STRUCTURED TO DELIVER ITS COMPREHENSIVE SERVICE TO CITIES AND REGIONS THROUGH A GROWTH-FOCUSED MODEL.

**Thirteen multi-expertise regions** provide a local presence for public-sector and private-sector contracting authorities, and are structured into six operations departments and more than 100 operating locations.

**A major projects division** dedicated to the management and construction of major engineered structures. It encompasses the operational departments responsible for national major projects, multi-expertise major projects and major structures, as well as NGE Infranet, the subsidiary company responsible for optical fibre projects.

**An international presence** focused essentially on North and West Africa, Europe, Latin America and the Middle East. With a presence in many countries through its rail infrastructure activities, international projects are handled by NGE Contracting, by Générale Routière in Morocco and by France-based entities.

**National Specialist Subsidiaries (NSS)** whose expertise is available throughout France.

**A concession division** that provides contracting authorities with the project support they need under the terms of concession, public service delegation or partnership contracts.



# 2018 in numbers

**11,000+**  
EMPLOYEES

**50%+**  
OF EMPLOYEES HOLD SHARES  
IN THE GROUP

**10,000+**  
PROJECT WORKSITES

AN ORDER BOOK  
**UP 33%**  
ON 2017

**€100m**  
INVESTED IN PLANT  
& MACHINERY  
(30% FOR UNDERGROUND  
PROJECTS)

ACCIDENT PREVENTION:  
ACCIDENT FREQUENCY  
RATE  
**15.06**  
(18.71 IN 2017)

**€6.3m**  
DEVOTED TO INNOVATION  
(42% TO SUSTAINABILITY  
DEVELOPMENT  
PROJECTS)

**€555m**

URBAN  
INFRASTRUCTURES  
& EARTHWORKS (27%)

**€267m**

PIPELINES & OTHER  
UNDERGROUND  
NETWORKS (13%)

**€235m**

CIVIL ENGINEERING  
(12%)

**€245m**

ROAD BUILDING  
& ROAD EQUIPMENT  
(12%)

**€2bn**

BREAKDOWN OF REVENUE  
BY CORE BUSINESS

**€450m**

RAIL  
INFRASTRUCTURE  
WORKS (22%)

**€164m**

GEOTECHNICAL  
& SAFETY  
RELATED WORKS  
(8%)

**€112m**

BUILDING CONSTRUCTION (6%)

GOVERNANCE

NGE GOVERNANCE IS STRUCTURED AROUND THE STRATEGY BOARD CHAIRED BY JOËL ROUSSEAU, AN EXECUTIVE MANAGEMENT TEAM AND AN EXECUTIVE COMMITTEE CHAIRED BY ANTOINE METZGER.

WE PUT THE STRENGTH OF OUR INDEPENDENCE AND OUR COMBINED ENERGIES TO WORK FOR THE BENEFIT OF OUR CUSTOMERS AND ALL THE NEW GENERATIONS TO CREATE A BETTER WORLD.

JOËL ROUSSEAU  
Chairman of the Strategic Board



STRATEGY BOARD

Joël ROUSSEAU – CHAIRMAN OF THE STRATEGY BOARD

Emmanuèle PERRON, Vice-Chairman – Yvon CARDINAL – Francis CHATELAIN – Alain DUPONT – Antoine METZGER – Michel PAVOINE – Joël PERELLE – Gilbert ROUX – BPIFRANCE Y CM-CIC

THE MEMBERS OF THE EXECUTIVE COMMITTEE

- A** Thierry ROBERT

**B** Orso VESPERINI

**C** Antoine METZGER

**D** Jean-Sébastien LEONI

**E** Michel PAVOINE

**F** Francis CHATELAIN
- G** Bruno PAVIE

**H** Joël PERELLE

**I** Michel LAVÉDRINE

**J** Stéphane PEREZ

**K** Jean BERNADET

**L** Gilbert ROUX



Antoine METZGER  
CHAIRMAN

Gilbert ROUX  
VICE-CHAIRMAN

Michel LAVÉDRINE  
CHIEF OPERATING  
OFFICER

Jean BERNADET  
Jean-Sébastien LEONI  
Stéphane PEREZ  
Orso VESPERINI  
DEPUTY CEOS

EXECUTIVE COMMITTEE

OPERATIONS COMMITTEE

CENTRAL SERVICES COMMITTEE

“We strive to nurture and promote the values that unite us and enable us to expand without compromising the essential soul of our Group. There are now 11,000 of us, and we continue to succeed in remaining a united family of entrepreneurs working in more than 12 countries worldwide. We have a duty to protect, pass on and promote this mindset. It was certainly hard at work on all our projects and initiatives of 2018, and continues to set us distinctively apart from others in our business environment. This is the context in which we continue to progress and apply consistently high standards as we put the strength of our independence and our combined energies to work for the benefit of our customers and all the new generations to create a better world”.



# INTERVIEW WITH Antoine Metzger



**ANTONIN**

"I work in an NGE region that was completely restructured following the introduction of the NOTRe law, so we have had to build everything from scratch. It's made things really interesting".

FOUR EMPLOYEES NEW TO NGE MET UP WITH ANTOINE METZGER TO DISCOVER HIS PERSPECTIVE ON LAST YEAR AND HIS FORWARD VISION FOR THE GROUP.



**WALTER**

"It's not so much the figure of 2 billion that I remember, but rather our growth. The ability to get projects off the ground and bring together all the material and human resources needed to achieve our goal".



**This performance reflects the ambition we have always been driven by. Even through the global financial crisis, we never stopped expanding.**

**ANTOINE METZGER**  
Chairman of NGE

**THÉO**

"It's a pretty good illustration of what being an entrepreneur actually means: having ideas and taking them through to a successful conclusion".



## WHAT WERE THE MAJOR HIGHLIGHTS OF 2018?

**Antoine Metzger** ▶ It was the year in which we passed the symbolic milestone of €2 billion in annual revenue. This performance reflects the ambition we have always been driven by. Even through the global financial crisis, we never stopped expanding. We've developed new areas of expertise and acquired the skills required to do so. We are now reaping the benefits of positioning ourselves

in fast-growing markets. Internationally, we have increased our presence in some countries. We are progressively demonstrating our expertise as we become operational in more and more countries. We have always moved forward without arrogance and by cultivating the values we believe in, which include the team unity and cohesion essential for success. For us, collective benefit will always outweigh individual success.

effectively to their needs. The continued ramp-up of major projects such as the French National Superfast Broadband rollout and the Grand Paris Express infrastructure projects also contribute to this performance. The contribution to total revenue generated by our international operations was also up by 20% year-on-year. This significant increase reflects our successes in Africa and Latin America, with highlights including the handover of Panama City Tramway Line 2, and the Crossrail project in the UK, which is Europe's biggest construction project and contributes around half of our international business volumes. Performance from our National Specialist Subsidiaries varied across the piece. A few very large projects depressed the profitability of certain entities, which will have to become more selective in terms of new business, at the same time as ensuring that the capital investments they make are profitable, especially in the context of the Grand Paris Express projects. In the rail engineering and road equipment markets, NGE subsidiaries continue to expand into new markets, such as sports flooring and rail signalling systems.



ANDRÉA

"Straightforward relationships, management accessibility and freedom of action are realities in this business. That freedom is a real luxury!"

●●● WHAT RESOURCES HAVE YOU PUT IN PLACE TO FACILITATE THIS DYNAMIC PERFORMANCE?

**A. M. >** We've continued to invest in innovation that benefits our customers and operators. That approach to innovation spans our plant fleet, training facilities to upskill our people in all our core businesses, and of course the developments we're now introducing to improve the way we care for, and protect, the natural environment. We've also had to plan ahead in order to identify and recruit the right people. Over the past three years, we've hired 2,000 people per year on average in France,



ANTONIN

"We're lucky to have great freedom of action, whether you look at recruitment or indeed business development. The doors are open here and people smile".



and our workforce has expanded by nearly 40% over that period. All of which has required a considerable level of investment, because we ensure that every induction is completed under the best-possible conditions. We understand that this stage is crucial if our new employees are to find their bearings and be able to express their talents to the full. Because the culture of delegation is a reality in this company, it takes time and energy for our new employees to feel comfortable about exercising their own initiative and become an entrepreneur in their own right.

WALTER

"When I arrived, people were expecting me. I'm part of a young team that's lucky enough to be able to rely on the support of a team of more experienced people, which I find reassuring in my new job".



WALTER

"I see NGE essentially as a group of leaders that isn't afraid to take risks".

HOW DO YOU SEE THE MONTHS AHEAD?

**A. M. >** Having delivered year-on-year growth of more than 10% over the past three years, we will continue to grow, but at a reasonable pace that will allow us to manage our strengths, achieve our goals and deliver on our commitments. Above all, I want all our people to work in unity and share in the pleasure of building structures that they can be proud of in the future. With today's excellent solid order book, we can approach the future with real confidence. From €3 billion at the beginning of 2018, our order book had grown to more than €4 billion at the beginning of 2019, which means that we will be

delivering a high production volume, but never at the expense of our fundamental values of safety, quality and profitability. We'll also be taking a more selective attitude to future projects by favouring and promoting those that create maximum value. Lastly, our new high-growth businesses are now maturing, and will contribute 30% of our revenue by 2020, despite the fact that they simply didn't exist three years ago. Daring to take risks, having the ability to adapt as a team, and inventing tomorrow alongside our customers and partners are our core strengths. We are the New Generations of Entrepreneurs. ●

Above all, I want all our people to work in unity and share in the pleasure of building structures that they can be proud of in the future.

ANTOINE METZGER  
Chairman of NGE

SHORT PROFILE

**Antonin Arvy**, Area Manager in the Centre Val de Loire region, joined NGE in May 2018.  
**Andréa Rouquette**, Quality Coordinator, joined NGE in June 2018.  
**Walter Toison**, joined NGE in May 2018 as International Pricing Research Manager.  
**Théo Echadour**, Site Engineer, recruited following his PFE qualification in July 2018.



WE ARE  
**PASSIONATE**  
**ABOUT PEOPLE**





WITH 65% OF ITS EQUITY OWNED BY MANAGERS AND EMPLOYEES, NGE REMAINS MASTER OF ITS OWN DESTINY. THE FOURTH EMPLOYEE SHARE OWNERSHIP CAMPAIGN SAW EMPLOYEES ONCE AGAIN EXPRESSING THEIR CONFIDENCE IN THE FUTURE OF THE GROUP.

**EMPLOYEE SHAREHOLDING**  
**A financial model based on independence and sharing**



**EVERY DAY, I MAKE MY CONTRIBUTION BY PHYSICALLY WORKING FOR NGE; IT'S GREAT TO DO THAT BY INVESTING IN THE GROUP TOO. IT'S SOMETHING TO BE PROUD OF!**

**SÉBASTIEN FAUVERNIER**  
Machinery Operator

**6,870**  
employee shareholders

**11.6%**  
of equity capital is owned by employees

**BECOMING A SHAREHOLDER MEANS BECOMING A JOINT OWNER OF NGE, CONTRIBUTING TO ITS COHESION AND HELPING TO BUILD ITS SOCIAL LINKS.**

**ISABELLE VALETTE**  
Design Manager

**A mark of trust**

In 2018, around 5,600 employees (800 more than in 2017) subscribed for shares in NGE, increasing the total number of employee shareholders to 6,870.

**A win-win pact**

The success of this campaign among all employees, regardless of job and level of seniority, provides an excellent illustration of the NGE culture of entrepreneurship. As a guarantee of the Group's long-term future, employee loyalty and financial independence, employee share ownership is seen by its teams as a sound investment, thanks to its profitability.

**In France and abroad**

This year, NGE extended its shareholding scheme to include the teams of its two largest subsidiaries in Morocco and Mexico. So the 2018 campaign was the first in both these countries, and was conducted under exactly the same conditions as the French campaign.



**1 out of 2**  
linesmen



**3 out of 4**  
staff and supervisors



**9 out of 10**  
managers

Subscribed for NGE shares in 2018.



THE SHORTAGE OF TALENTED INDIVIDUALS MAY BE A REALITY TODAY, BUT NGE STILL RECRUITED SEVERAL THOUSAND PEOPLE IN 2018. TO ACHIEVE THAT, THE GROUP HAS CAPITALISED ON ITS DISTINCTIVE DIFFERENCES AS AN EMPLOYER AND FOCUSED ON INDUCTION, WHILE SUPPORTING ITS TEAMS... WITH TALENT.

## TRAINING

### Planning today for the skills of tomorrow

#### Attracting the best

New work packages for the Grand Paris infrastructure projects, new regional contracts and a surge in areas of expertise like optical fibre... to meet the needs of its customers, NGE recruited around 3,500 people in 2018. The majority of these now work in optical fibre, subsurface contracting, civil engineering and foundation works. Against a background of full employment and a shortage of resources, recruiting 3,500 new people requires a proactive policy. To raise its profile among the best candidates, the Group forged partnerships at a very early stage with leading graduate schools (including internationally), university institutes of technology, vocational colleges and other educational institutions. These are supplemented by initiatives implemented alongside local employment agencies to recruit jobseekers and unemployed people, especially in high-demand skills such as formworkers and optical fibre cable layers.



#### PLATE FORME

is the NGE in-house training facility providing engineering courses and employee training.

#### Training specific to our areas of expertise

With 4.5% of its payroll devoted to training, NGE is one of the highest investors in training within the construction and civil engineering industry. The way skills and careers are changing makes training a non-negotiable asset: two-thirds of the €12 million invested in 2018 was devoted to in-service training on regulatory issues, skills development and business ethics. More than 9,000 of our 11,000 employees attended at least one training course during the year, with more than two-thirds receiving their training via the Plate Forme in-house training facility. In 2018, NGE also welcomed more than 520 employees under the terms of work/study, vocational and basic training contracts. For example, the Group's optical fibre business now employs 450 people, whereas three years ago the figure was just 40. 80% of those new recruits have been trained in-house by NGE.

#### Supporting talent of every kind

NGE acts in three ways to build team loyalty as we prepare for the future: a workplace quality of life that far exceeds the industry average (see page 24), effective career management and international mobility.

In 2018, NGE implemented a new system to manage Group talent consistently and flexibly. Conducting annual appraisals, evaluating the results and identifying high potential: the resource and competencies planning is highly structured at NGE. Configured during 2018, this system will become operational before summer 2019.

The same applies to encouraging employee mobility. A working group was formed in 2018 to identify all barriers on mobility and put forward an action plan for implementation in 2019. The goals set for the working group were to build team loyalty, boost skills and meet the need of the company.

NGE recruited around  
**3,500**  
people in 2018

Nearly **1** person  
in **5**  
was recruited  
on completion of a work/  
study course

In 2018, NGE invested  
around **€12m**  
in training; an amount  
equivalent  
to 4.5% of payroll

**160**  
training programmes  
are offered by the Plate  
Forme in-house facility



THOSE WHO WORK HERE AGREE: NGE IS A FRIENDLY COMPANY THAT'S GREAT TO WORK FOR. THE LATEST WORKPLACE QUALITY OF LIFE (WQL) SURVEY CONDUCTED BY GREAT PLACE TO WORK® (GPTW) PUT THE GROUP TOP OF ITS RANKING OF CONSTRUCTION AND CIVIL ENGINEERING COMPANIES FOR MOST CRITERIA

## WORK-LIFE BALANCE

### A company that's great to work for

**C**onsidered as fundamental to feeling good in the job you do and therefore doing that job well, work-life balance has always been an NGE priority. So the Group conducted an independent survey in 2018 to measure the reality of work-life balance through the eyes of its employees.

#### An independent and accredited survey

This survey allows NGE to compare its performance against other companies employing more than 5,000 people and conducting the same survey. There are two types of comparison: with other construction and civil engineering companies, and those companies achieving the highest results. 65% of employees agree that NGE is a great place to work, compared with 58% for the rest of the industry. With around 80% committed to the company and proud to work for NGE, the thing that employees appreciate most is the friendly working environment, followed by the trust that managers place in their teams.

#### Ratings equal to, or higher than, the best-performing companies

Whether the questions are about pride in their employer, friendliness in the workplace or credibility, respect and fairness – the five topics measured by the survey – NGE often ranks equal to, or above, France's top companies within the GPTW panel, and often far ahead of other construction and civil engineering companies. These scores are explained by the core values of the company and its proactive stance on WQL.

#### Paths to progress

Although very good overall, these results do reveal some disparities between Group entities. So a working group has been formed to identify good practices and ensure that they provide the inspiration needed by those with room for improvement.



**THESE GOOD RESULTS SHOULD DEFINITELY ENCOURAGE US WE ARE LUCKY TO HAVE PEOPLE WITH SUCH COMMITMENT TO THE COMPANY AND THE WORK WE DO. SO LET'S BUILD ON THIS MOMENTUM AND WORK TOGETHER TO GO EVEN FURTHER.**

**3,510**  
employees took part  
in the survey

**2 out of 3**  
employees agree  
that NGE is a great place  
to work

**82%**  
of employees are proud  
of NGE's achievements

**79%**  
are proud to work  
at NGE

**80%**  
of employees believe  
that management trusts  
them without constantly  
checking on them



# THE FACE of the New Generations of Entrepreneurs

WHETHER THEY ARE ENGINEERS, LABOURERS OR STAFF, NEW TO THE GROUP OR HAVE BUILT THEIR CAREERS WITH US, ALL HAVE CHOSEN TO BE ENTREPRENEURS. THAT FACT IS CLEAR FROM THEIR WORDS AND CAREER PATHS..



**CHRISTELLE DARBOUX**  
Accountant  
working in  
the finance  
department  
at NGE  
Headquarters

**MY PRIORITY IS TO MAKE SURE THAT SITE MANAGERS ARE FREE TO FOCUS ON THEIR OWN TASKS."**

**YOUR CAREER PATH IN A FEW WORDS**  
I joined the Group as a work/study trainee in 2005, and now I'm an accountant for joint ventures. NGE has allowed me to work independently and become a specialist.

**THE MISSION YOU'RE MOST PROUD OF**  
I enjoy answering questions from site managers and telling them whether an invoice has been paid or received. That leaves them free to focus on their own tasks.



**MICKAEL REDORGER**  
Optical Fibre  
Technician  
working in  
the Grand  
Est region  
of France

**WHAT NGE HAS DONE FOR YOU**  
Not only has NGE introduced me to a new profession, but it has also trained me and helped me to develop my career. The company has put its faith in me.

**THE PROJECT YOU'RE MOST PROUD OF**  
Pulling cables so that all homes can be connected to the fibre optic cable network is really rewarding work. I'm making my own personal contribution to closing the digital divide, and that's something I'm proud of.

**THE COMPANY HAS PUT ITS FAITH IN ME."**



**FRANCK AMOREAU**  
Earthworks Senior  
Site Foreman  
in the Isère region –  
Major Environmental  
Projects Branch

**AT NGE, WHAT MATTERS ARE PEOPLE, VALUES AND PROACTIVITY."**

**YOUR CAREER PATH IN A FEW WORDS**  
Today, I provide leadership for 25 people. In 2005, I was a labourer. I had my school leaving qualification, but I wanted to learn the job from the ground up.

**WHAT NGE HAS DONE FOR YOU**  
Most companies chase after graduates. At NGE, what matters are people, values and proactivity. That's quite a rare thing.



**AMBRE PASTOR**  
Site Civil Engineer  
working on the  
Grand Paris Express  
Line 14 South  
project

**WHY DID YOU CHOOSE NGE?**  
Because here, there's no hesitation in entrusting young people with ambitious projects that offer opportunities and let them take on real responsibilities very quickly.

**WHAT YOU'VE DONE FOR NGE**  
Every time NGE has put its trust in me, I've always wanted to prove myself to be up to the challenge, move forward and excel myself to ensure a successful project outcome.

**I'VE ALWAYS WANTED TO EXCEL MYSELF TO SUCCEED IN THE CHALLENGES I'VE BEEN SET. THAT'S WHAT'S HELPED ME TO PROGRESS."**



THE FACE  
of the New Generations  
of Entrepreneurs.



**LOÏC MURAT**  
Operations  
Director  
in Mexico

**HAVING JOINED THE GROUP AS A SITE SUPERVISOR, I'M NOW THE OPERATIONS DIRECTOR. THAT'S WHAT NGE MEANS TO ME! //**

**THE PROJECT YOU'RE MOST PROUD OF**  
The Cuenca tramway in Ecuador. We had less than a year to complete nearly 10 kilometres of track that had been abandoned by the previous contractor.

**WHAT NGE HAS GIVEN YOU**  
NGE has allowed me to develop my career very quickly, first in Cuenca, and now as Operations Director for Mexico. And in less than two years!

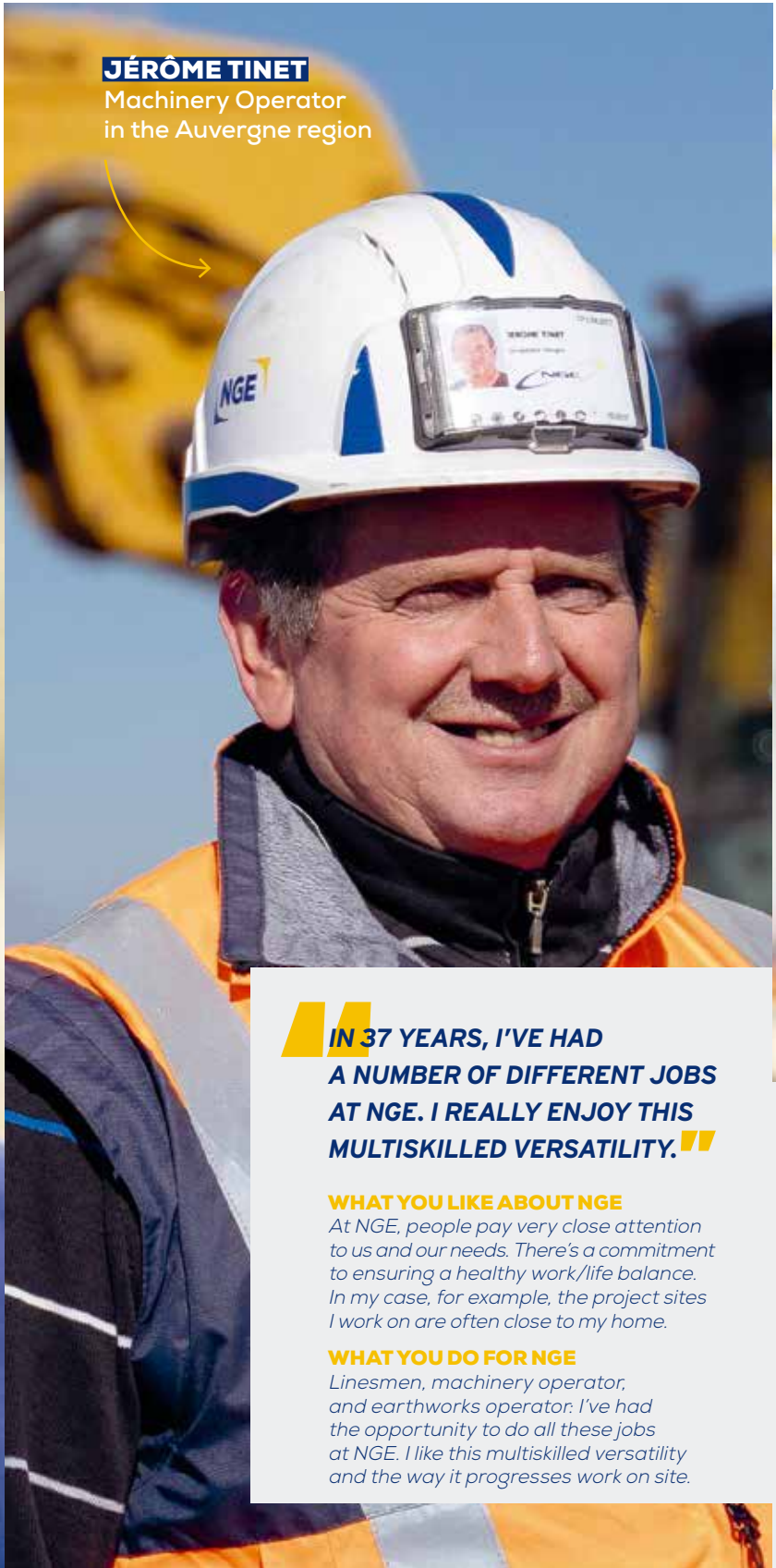


**BOUAZZA MOUSSAFIR**  
Rail Operations  
Director based  
in TSO HQ  
in Chelles

**WHAT YOU'VE GIVEN TO NGE**  
I love mixing old cultures with new. I really enjoy bringing people together. That's how the magic happens on every worksite; I put people on the right track.

**WHAT NGE HAS GIVEN YOU**  
Rail engineering has become my passion thanks to NGE. Because the rail industry isn't something you can learn at college. Everything I've learned I owe to NGE.

**RAIL ENGINEERING HAS BEEN MY PASSION FOR 28 YEARS. A PASSION TO WHICH I'VE DEVOTED ALL MY ENERGY FOR ALL OUR CUSTOMERS. //**



**JÉRÔME TINET**  
Machinery Operator  
in the Auvergne region

**IN 37 YEARS, I'VE HAD A NUMBER OF DIFFERENT JOBS AT NGE. I REALLY ENJOY THIS MULTISKILLED VERSATILITY. //**

**WHAT YOU LIKE ABOUT NGE**  
At NGE, people pay very close attention to us and our needs. There's a commitment to ensuring a healthy work/life balance. In my case, for example, the project sites I work on are often close to my home.

**WHAT YOU DO FOR NGE**  
Linesmen, machinery operator, and earthworks operator. I've had the opportunity to do all these jobs at NGE. I like this multiskilled versatility and the way it progresses work on site.



**ALEX RICHARD**  
Construction  
Site  
Supervisor  
based  
in Laval

**WHAT YOU DO FOR NGE**  
In the construction industry, you have thousands of opportunities to ask yourself questions that can help you move on and apply innovation, especially when you love the job you do.

**WHAT YOU LIKE ABOUT NGE**  
The values of NGE mirror my own. And I love the multi-expertise aspects of what we do, because it makes us much stronger.

**I'M PASSIONATE ABOUT THE JOB I DO. I TRY CONSTANTLY TO INNOVATE, AND AVOID TAKING THINGS FOR GRANTED. //**



# 365 DAYS OF ENTREPRENEURS



## URBAN MOBILITY

Replacing Caen's rubber-wheeled tramway with a new system running on rails in just 20 months: it's a record!



Join us to relive the highlights of 2018 and discover how we continue to deliver on our commitments all day, every day.





### EASING TRAFFIC FLOW

Construction of an overpass above the A4 motorway at Nogent-sur-Marne, as well as access ramps to the new bridge.



### SECURING THE WATER SUPPLY

Replacement of an 800-metre pipeline, part of which is beneath the Avre footbridge over the Seine, designed by Gustave Eiffel.



### CONNECTING ROADS

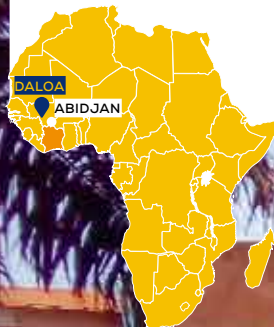
Rehabilitation of the pavement layers of the CESAM (Autoroute de la Maurienne Maintenance and Safety Centre) interchange on the A43.





SUPPORTING  
GLOBAL  
DEVELOPMENT

The urban community  
of Daloa (the third most  
populous city of Côte  
d'Ivoire): new roads  
and drainage.







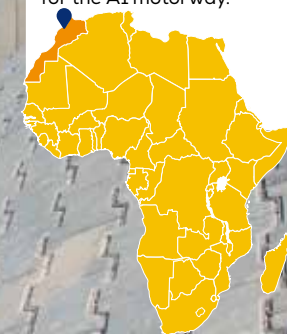
### MAKING ROADS SAFER

Pushing a bridge into place as part of the project to widen 17 kilometres of the A63 in the Landes to 2x3 lanes.



### FACILITATING ACCESS

Construction of the first slide-in bridge in Morocco for the A1 motorway.



### CONNECTING COMMUNITIES

Opening up the Pas de l'Ours valley in the Queyras region of the Alps by rebuilding the RD947 road.



### GETTING READY FOR THE 2024 OLYMPICS

Renovation of the Boutroux sports complex (in the 13<sup>th</sup> arrondissement of Paris) by reusing materials from demolition.





## RETHINKING EXISTING SPACES

Renovating, upgrading energy performance and extending the Palais du Grand Large.

SAINT-MALO



## CONSOLIDATING EXISTING STRUCTURES

Retention works (installation of two levels of buttress) for the Atrium (8-storey office building) project.

PARIS

ANTONY



## IMPROVING MOBILITY

Catenary regeneration on 180 kilometres of the RER C line between Paris and Brétigny-sur-Orge.



## HERITAGE CONSERVATION

Refurbishment of the Freyssinet bridge across the Seine; a 100% concrete structure, including the hangers.



WE ARE **SERIOUSLY**  
**ADVENTUROUS**





WITH DOUBLE-DIGIT GROWTH, NGE HAS BECOME A MAJOR FORCE IN THE OPTICAL FIBRE MARKET OVER THE LAST THREE YEARS, BOOSTED BY THE FRENCH SUPERFAST BROADBAND PLAN. WE HAVE THE ABILITY TO HANDLE PROJECTS END-TO-END, FROM NETWORK DESIGN TO FUNDING, INSTALLATION AND OPERATION.

## FIBRE Superfast expertise

A series of contracts have underlined the expertise of the Group in fibre optic network installation. NGE already held a number of so-called 'first generation' contracts when the France Superfast Broadband Plan was announced, but since then, the Group has established an extremely strong track record and was awarded three new contracts in 2018. Winning the contract to design and build the superfast electronic communication network for the department of Hérault commits NGE to installing 256,000 connections in its most remote communities by 2022. The Group also operates in this market as a concession holder, which is an effective way of engaging with public-sector stakeholders, as it is already the case in the Grand Est region. Two new successes came in the final quarter of 2018. This time, in the departments of Gironde and Charente-Maritime, where the Group has agreed to install around 100,000 connections over six years and five years respectively. These new contracts are the result of close collaboration between NGE Infranet and the Aquitaine regional management teams; a perfect illustration of the multi-expertise

advantage combined with a thorough knowledge of the local fabric. Under the terms of these contracts, NGE has committed to work with local employment agencies to integrate and train people who are either looking for a career change or currently unemployed.

### A mine of opportunities

Although the work underway today gives the Group forward visibility of more than five years, NGE is also positioning itself to win new contracts with telecoms operators. But with requests flowing into the NGE regions and those of operators seeking public initiative networks, the Group has every reason to be confident about the future.

#### HOLDING ALL THE CARDS

NGE Infranet, the Group subsidiary company specialising in optical engineering, has confirmed NGE in its role as a global force in the optical fibre market. It offers high-performance solutions in four distinct areas of the market.

1. The design and engineering of FttH<sup>(1)</sup> networks, with five design offices close to major project worksites.
2. The rollout of these networks, from infrastructure construction to installation and connection.
3. Network maintenance, security and operation.
4. Network funding through NGE Concessions.

(1) FttH: fiber to the home.

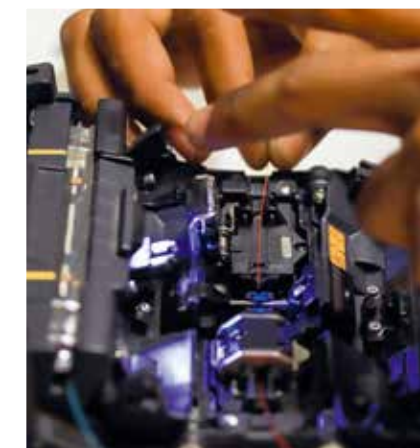
WE'VE BECOME A KEY STAKEHOLDER IN THE OPTICAL FIBRE MARKET IN JUST THREE YEARS. WE'VE ACQUIRED AND INTEGRATED THE SPECIALIST SKILLS OF OPTICAL ENGINEERING SO THAT - IN COMBINATION WITH OUR OTHER AREAS OF EXPERTISE - WE CAN OFFER TOTAL SOLUTIONS.



450  
employees,  
including  
150 hired  
in 2018

2 MILLION  
connections  
to be installed

€90m  
in revenue, compared  
with €35m in 2017





WITH 16 WORK PACKAGES, INCLUDING SIX MAJOR PACKAGES, 26 KILOMETRES OF TUNNELS, SIX TUNNEL BORING MACHINES AND 37 ENGINEERED STRUCTURES, THE GRAND PARIS EXPRESS IS BOTH A COMMERCIAL FEAT AND A TECHNICAL ACHIEVEMENT FOR NGE.

## GRAND PARIS The worksite of the century

**T**wo hundred kilometres of rail track, 90% of which is underground, 68 stations, four new lines, €38 billion, 15 years of work, two million passengers... If there's one colossal project underway in Europe today, it's the Grand Paris project.

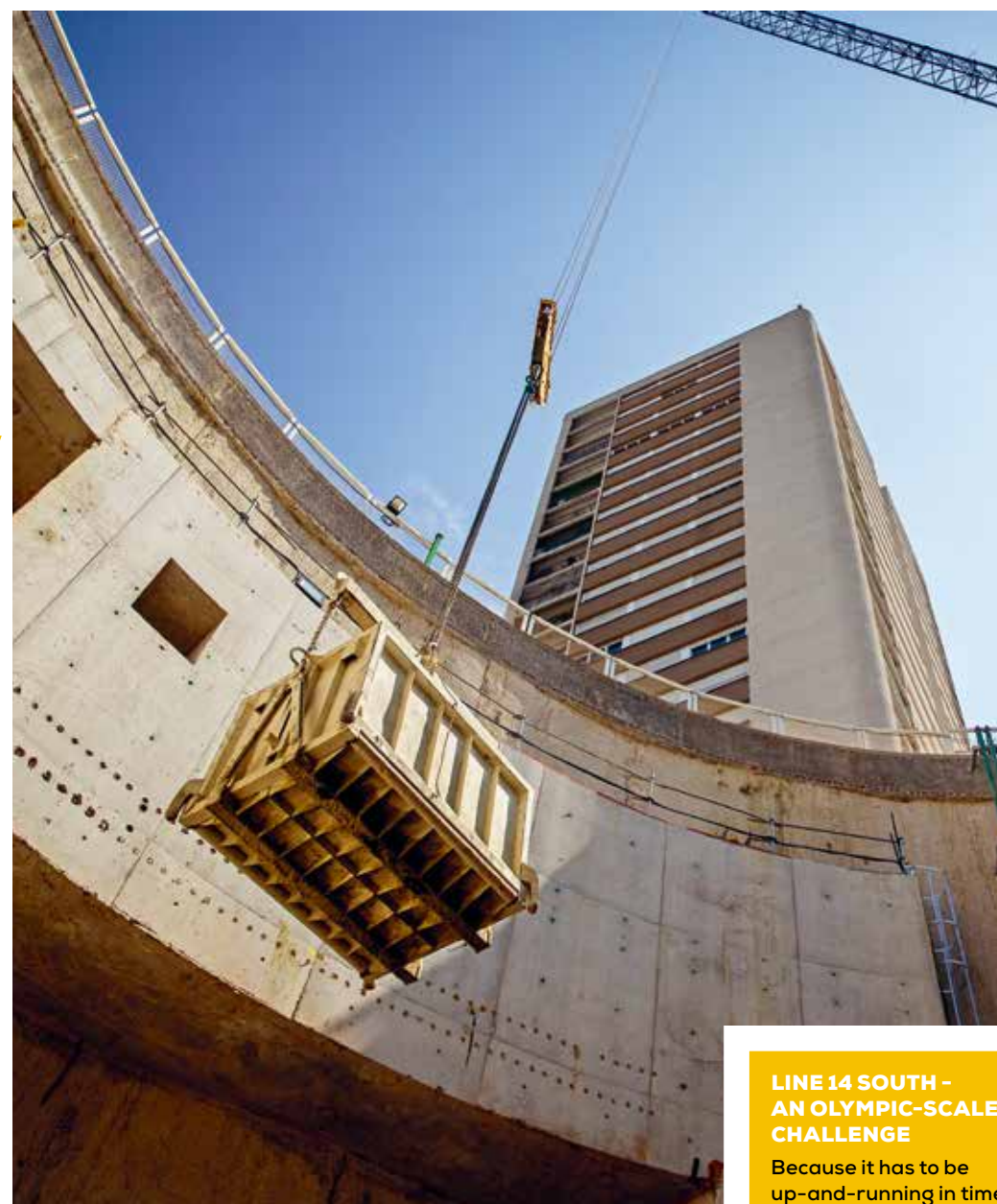
### NGE is in the driving seat for six major Grand Paris work packages

NGE has been part of this project since the first pickaxe hit the ground, with 16 work packages awarded to date, including six major packages: packages 1 and 2 on Line 16 in Aulnay-sous-Bois, package 4 on Line 14 South in Orly, packages T2C on Line 15 South and GC01 on Line 11 in Noisy-Champs, and the Haussmann Saint-Lazare tunnel intersection in Paris.

Whether the Société du Grand Paris (SGP), RATP or SNCF Réseau, what project owners appreciate most about NGE is its entrepreneurial 'can-do' attitude, its ability to manage very large projects, its high degree of responsiveness and its proactive approach to innovation. For example, the Group is the first to fabricate and install segments in fibre-reinforced concrete liners, which have a higher level of fire and crack resistance, at the same time as being faster to produce. It was also the first to offer a new system that enables continuous analysis of excavated spoil: Diagnosol Express®. The system received an award from SGP for its ability to provide continuous detection of pollutants in natural soils, and direct them very quickly to the appropriate recovery or storage channels.

#### LINE 11, DHUYS STATION

Construction of a tunnel boring machine and underground station access shaft.



#### LINE 16, WORK PACKAGE 2: A SOCIAL AND TECHNICAL CHALLENGE

With four stations, 11 kilometres of tunnel, two tunnel boring machines and a contract value of €720 million over five years, this section of Line 16 is the largest NGE work package in terms of the volume of work involved. The teams worked on the tendering process for more than two years to be sure of winning the contract in February 2018, and starting work last October. The project has been a steep technical challenge from the very beginning. It involved inviting worldwide tenders for the supply of two tunnel boring machines, and start work on preparing for their arrival between now and 2020. Most of the different areas of expertise available within the Group will contribute to this project for a shorter or longer period of time: subsurface contracting, civil engineering, earthworks, diaphragm walling and other foundation structures, as well as soil injections and auscultation-based topographic surveys. As the only line to serve Seine-Saint-Denis, Line 16 also presents NGE with a social challenge, because the Group will provide training and induction to bring unemployed people into the workplace and help those retraining for a new career.

**11 KM**  
of tunnel to be cut  
by tunnel boring  
machines

**11** engineered  
structures

**2** tunnel boring  
machines

**€720m**  
contract value

#### LINE 14 SOUTH - AN OLYMPIC-SCALE CHALLENGE

Because it has to be up-and-running in time for the 2024 Olympics, this extension of Line 14 to Orly must be completed on time come what may. To ensure that this happens, the tunnel boring machine had to be specified and ordered as soon as the contract was awarded last February to ensure its delivery 12 months later. The complete tunnel boring machine is scheduled to be commissioned this April.

**4 KM**  
of tunnel to be cut by tunnel  
boring machines partly  
beneath Paris Orly airport

**1** tunnel boring machine

**€203m**  
contract value

#### WHEN ART PUSHES THE BOUNDARIES

Just the challenge for two high-profile graffiti artists: a tunnel boring machine. In handing over the Line 14 tunnel boring machine to artists Lek & Sowat, NGE has given it a new identity as a star of ephemeral art. So here's the graffiti version of the massive cutting wheel.



**16** work packages

**6** tunnel boring machines  
co-owned by NGE

**€3.2bn**  
contract value, including  
€700 million attributable to NGE



UP 14% ON 2017, REVENUE FROM OUR REGIONS CONTINUES TO STRENGTHEN AS THE ORDER BOOK GROWS. ONCE AGAIN, THE GROUP OWES THIS SUCCESS TO ITS MULTI-EXPERTISE MODEL AND LONGSTANDING REGIONAL IDENTITY. THESE NUMBERS AND IMAGES TELL THEIR OWN STORY.

## THE REGIONS

### An excellent year for our regions

**A**t €863 million, combined revenue from our regions was up by 14% in 2018, compared with market growth of just 8%. So for the fourth consecutive year, NGE outperformed its targets, at the same time as strengthening its presence in the sector. The same dynamic impetus is reflected in the 38% year-on-year increase in the regional order book at 1 January 2019.

#### Consistency, local presence and multi-expertise

NGE owes all these successes primarily to its consistency and tenacity, regardless of market conditions. Far from being discouraged when the market dipped to its lowest level, the Group continued to invest in preparing for the future: a local presence at regional level with new locations and the introduction of a 100% multi-expertise offer spanning the full diversity of its specialist expertise: urban infrastructures, earthworks, pipelines and other underground networks, civil engineering, road infrastructures and power supply. It's a strategy that proved to be absolutely in line with what the market wanted when the recovery in orders came. It also enabled the regions to retain their resources and customers, at the same time as benefiting from some incidental aspects of the Grand Paris project in the Île-de-France region.

13  
REGIONS

3,500  
WORKSITES

Our regional order book was up

38%  
year-on-year  
at 1 January 2019

€863<sub>m</sub>  
in revenue, reflecting  
year-on-year growth of  
14%



#### 1 BIORREFINERIA (LA MÈDE) PACA REGIONAL DIVISION

Total awarded NGE the contract to re-purpose its La Mède facility for its first biorefinery in France. This earthworks, foundations and civil engineering project involved 70 people working for an entire year on a worksite subject to draconian requirements.

#### 2 BASCULE BRIDGE - SÈTE LANGUEDOC-ROUSSILLON REGIONAL DIVISION

A landmark feature of Sète since it was built in 1923, the port's counterweighted bascule bridge will be given a new lease of life by the civil engineering teams of NGE. Handover is planned for July this year, following completion of 13 months of work on site.

#### 3 SPLITTING OF THE A10/A85 - TOURS CENTRE-VAL DE LOIRE REGIONAL DIVISION

A toll station, two bridges over the traffic lanes and a technical services building, 90,000 m³ of excavated spoil, 100,000 m³ of backfill and 25,000 tonnes of surfacing asphalt... These are just a few of the key figures for this multi-expertise project carried out despite motorway traffic and handed over to its operators this February.

#### 4 RINGROAD WIDENING - BORDEAUX AQUITAINE REGIONAL DIVISION

Thanks to the work done by our NGE teams, the 95,000 people who use the Bordeaux ring road every day can - at last - enjoy the benefits of a third lane between Mérignac and Eysines. This 100% multi-expertise worksite completed and delivered last autumn involved earthworks, wastewater drainage, road surfacing and road equipment.

#### 5 GRADE-SEPARATED ROUNDBOUT - SAINT-SAULVE HAUTS-DE-FRANCE REGIONAL DIVISION

When it is officially opened this summer after two years of on-site work, this roundabout will have involved no fewer than 60 people working in six areas of specialist expertise, including special foundations and rail infrastructure engineering. It is the first work package of a Valenciennes northern bypass project, due to complete in 2024.

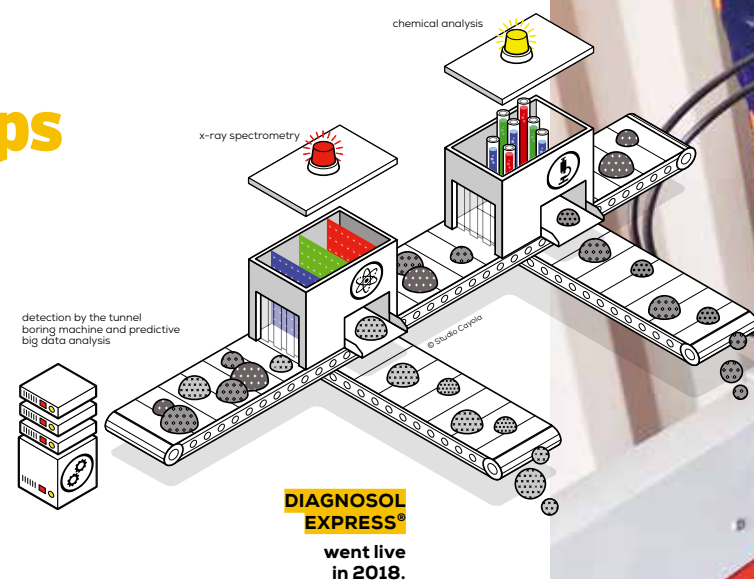


NIT IS TO MEET THE NEEDS OF ITS CUSTOMERS, WORK COLLABORATIVELY AND SAVE TIME ON SITE THAT NGE IS EMBRACING THE BEST OF DIGITAL TECHNOLOGY.

## DIGITAL TRANSFORMATION

### Innovation at our fingertips

In 2018, NGE accelerated the digital transformation of every area of Group expertise. Since January last year, some on-site monitoring reports, construction reports, safety inspections and environmental reports are no longer printed, but are entered as data throughout the day before being transmitted online from an ordinary smartphone. This transition has been made possible by infinitely customisable standard forms. Despite being optional, the app has been introduced very successfully and widely adopted in three of our regions, as well as on the Grand Paris worksites. Site supervisors, branch managers and quality, safety and environment managers have all praised and embraced this paperless solution. That's because it saves them time and allows them to share more reliable information, at the same time as being more eco-friendly.



#### BIM or design in five dimensions

Structural modelling, extracting quantities from models, working collaboratively with customers, and project phasing and monitoring... The Building Information Modelling (BIM) systems that have proved so successful in the construction industry have been embraced and adapted by NGE for the public contracting environment. This design tool works in five dimensions, that include 3D structural design, as well as managing costs and lead times. NGE use the system in 2018 for some Grand Paris work packages and for construction work on the SYCTOM energy recovery unit in Saint-Ouen.

#### Diagnosol Express® analyses the excavated spoil in the shortest-possible time

Developed in response to the high expectations expressed by the Société du Grand Paris (SGP) around the issue of identifying



*"The digitalisation process is being driven primarily by field operator acceptance and adoption. By testing these new systems, the teams can see at first-hand how they can be released from time-consuming duties to focus on their real jobs. This way, they become the most persuasive ambassadors for our digital transformation."*

**Paul Sancey**, Head of Innovation and Chief Digital Officer

**MOBILE APP**  
adopted  
by operators.



In 2018,

**30,000**  
forms and ongoing reports  
were completed online

**4 TO 5 HOURS**  
instead of 4 to 5 days:  
that's the time it takes  
Diagnosol Express®  
to identify the pollutants  
present in natural soils

pollutants in natural soils and channelling them as quickly as possible to the most appropriate recovery or storage facilities, Diagnosol Express® was used live for the first time last year on work package 2 of Line 15. It was a perfect opportunity to confirm the viability of the solution. Once it has been approved by the SGP later this year, it will be put to work on two major Grand Paris work packages: the Line 14 worksite in Orly and the Line 16 worksite in Aulnay-sous-Bois.

#### Augmented reality drawings on a tablet

The ability to overlay actual construction on infinitely orientable 3D drawings is a major step forward in avoiding errors and omissions. NGE invested in an augmented reality startup during 2018. Its smartphone and tablet app should be available to our building construction company's managers this year, before being rolled out to other areas of the Group.



## PORT-BARCARÈS A first in France

BY 2030, PORT-BARCARÈS WILL LOOK VERY DIFFERENT, WITH A NEW MARINA, A NEW URBAN CORE AND 2,000 NEW HOMES ON AN ARCHIPELAGO OF ISLANDS. THE ENTIRE DEVELOPMENT IS 100% SMART, SUSTAINABLE AND CONNECTED, BENEFITING BOAT OWNERS, RESIDENTS AND LOCAL AUTHORITIES. IT'S ALL THANKS TO AN UNPRECEDENTED PUBLIC-PRIVATE PARTNERSHIP. THE ILLA CATALA DEVELOPPEMENT SEMOP<sup>(1)</sup> CREATED IN JULY 2018.



"Boat sharing, pneumatic waste collection, smart wastewater drainage system, smart multi-service terminals and smartphone access to harbour services are just some of the services we proposed for the future marina. Services like these will cut operating costs, provide boat owners with greater convenience and make it possible to manage the harbour sustainably."



**STÉPHANE OFFNER**  
Innovation, Research  
& Development Project Manager  
at NGE; the man responsible  
for the smart marina segment  
of the Port-Barcarès project



**ALAIN FERRAND**  
Mayor of Barcarès  
and Vice-Chairman  
of Perpignan Méditerranée  
Métropole

"Thanks to Illa Catala, we can now rely on the support of NGE, a construction and civil engineering company famous for its commitment to delivering major projects alongside local and regional authorities. This type of public-private partnership is the first of its kind in France. Its structure means that the local authority remains an active stakeholder in the management of the project, at the same time as being able to draw on the industry skills and expertise of a private operator."

"Having taken charge of the project in July last year, we had 18 months to secure all the necessary permissions, acquire the land, tie-up the funding package and prepare the urban planning package. Some work is already scheduled for 2019, and we have taken over operations via our Port-Adhoc subsidiary company. Earthworks and the civil engineering works required for the aqueduct, roads and utilities networks will begin in 2020, as will dredging and other preparatory works."



**MARTIAL GERLINGER**  
CEO of the Illa Catala  
SEMOP and Head  
of Concessions at NGE



### FROM MISSION LITTORAL 21 TO ILLA CATALA

Following in the footsteps of neighbouring resorts, such as Cap d'Agde and La Grande Motte, which were largely built in the 1960s, Port-Barcarès sought to reinvent itself in the 2000s, and again more recently as part of the Mission Littoral 21 project to regenerate the coastal and maritime economy of Occitanie. NGE responded to a call for tenders issued by the town for a public-private partnership in the legal form of a SEMOP. The resulting semi-public company is owned 44% by the local authority, 28% by NGE and 28% by Vinci Construction.

Its aim is to realise the full potential of the town, harbour and lagoon, as well as create a huge leisure centre. The project is a unique opportunity to create a harbour destination for the 21st century. Secure, tech-savvy, dredged and accessible via an aqueduct, it will offer residents a completely new residential community and all the services users expect of a smart marina. Convinced of the value of this financial package and the bold ambition of the project, the Port-Barcarès local authority appointed the NGE-led consortium to create and deliver it.

(1) SEMOP: a semi-public partnership formed for a specific public project.



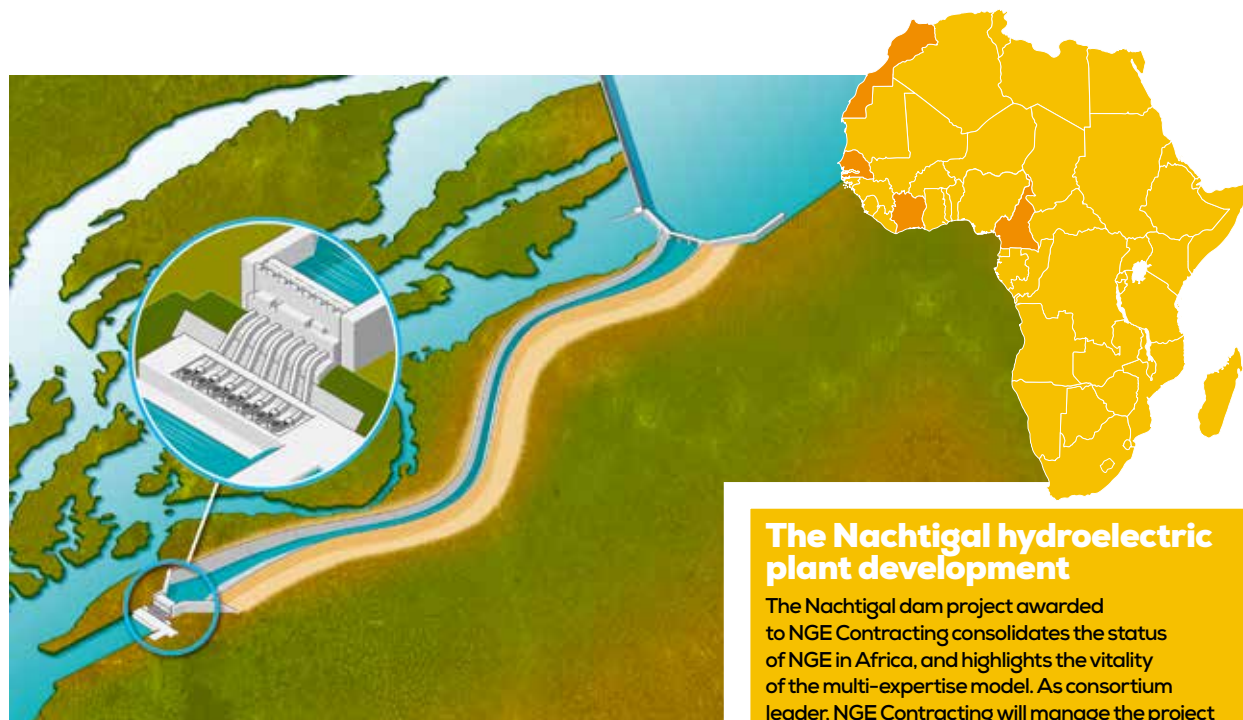
SINCE THE NGE / TSO MERGER, THE GROUP HAS WON A MUCH LARGER NUMBER OF INTERNATIONAL CONTRACTS. IN RAIL ENGINEERING, OF COURSE, BUT ALSO FOR MULTI-EXPERTISE PROJECTS LIKE THOSE IN MOROCCO, ECUADOR AND CÔTE D'IVOIRE, WHERE PROJECTS ARE UP-AND-RUNNING. THE LATEST IS THE NACHTIGAL DAM AND HYDROELECTRIC PLANT IN CAMEROON.

## INTERNATIONAL Committed beyond our borders

**+22%**  
Year-on-year increase  
in international revenue  
for 2018

### French-speaking Africa

Following the initial impetus provided by Morocco, the Group's presence in French-speaking Africa is expanding as a result of new contract wins in Côte d'Ivoire, Senegal and, most recently, Cameroon. Our Moroccan subsidiary has diversified, and is now a multi-expertise company in its own right, and with its own ambitious infrastructure projects. In Côte d'Ivoire, NGE is expanding with the emphasis on earthworks, civil engineering and bridge projects, while in Senegal, the teams are working on the Dakar TER regional express and other multi-expertise projects.



### The Nachtigal hydroelectric plant development

The Nachtigal dam project awarded to NGE Contracting consolidates the status of NGE in Africa, and highlights the vitality of the multi-expertise model. As consortium leader, NGE Contracting will manage the project alongside Moroccan partner SGTm and leading Belgian construction company BESIX.

**"THE INTERNATIONAL ORGANISATIONAL STRUCTURE IS REALLY PAYING OFF. IN 2018, IT HELPED US TO STRENGTHEN OUR MULTI-EXPERTISE MODEL OUTSIDE FRANCE, IDENTIFY NEW DRIVERS FOR GROWTH AND BOOST SYNERGIES BETWEEN THE TEAMS OF TSO AND NGE CONTRACTING. AND WE'VE ALSO CONSOLIDATED OUR DOMESTIC OPERATIONS IN EUROPE, LATIN AMERICA AND AFRICA".**



### UK

NGE has extended its Crossrail adventure in London with the construction of the associated rail maintenance depot. The Group plans to build on its local presence to expand further in the country that contributed 40% of international revenue in 2018.

### Latin America

Having completed Line 1 of the Panama City underground in 2014, NGE delivered Line 2 with a few days to spare before the World Youth Day opening ceremony. The Group has also just completed the first international multi-expertise rail project with handover of the Cuenca tramway in Ecuador. In Mexico, NGE has very quickly established itself as a leading force in the market, and is the only company to work with all four of the country's major operators.





WE ARE  
**SINCERELY**  
**COMMITTED**







*"For the work on the A63, we insisted on a proactive commitment to employment integration, and NGE had no hesitation in signing up to that. After working with us to identify the type of profiles needed, trainees attended their in-house training facility, and were then hired under permanent contracts of employment for the full period of the project. Because the company is fully aware of what employment integration and training actually mean, we've progressed together on the basis of an excellent understanding. All of which benefits people struggling to find employment."*

**Béatrice Darget**, Employment Integration and Social Clauses Officer for the Landes Department

## EMPLOYMENT INTEGRATION

### A lever that sets us apart

WHETHER IT BE FOREIGN STUDENTS, REFUGEES OR UNEMPLOYED, NGE HAS ALWAYS RELIED ON DIFFERENCE AND INTERACTION TO REACH OUT TO PEOPLE STRUGGLING TO FIND EMPLOYMENT. IT'S A COMMITMENT THAT HAS DELIVERED BENEFITS FAR BEYOND STRAIGHTFORWARD SOCIAL SOLIDARITY.

**EMPLOYMENT INTEGRATION** reflects a longstanding NGE commitment to bring unemployed people back into the workforce.



**THE FIRST INTAKE OF STUDENTS IN CASABLANCA** for whom NGE funded 100 living expenses grants.



**W**ith two decades of commitment to employment integration initiatives, NGE hired around 500 unemployed people during 2018 to work on approximately 20 projects. Long-term unemployed, young people with no training, refugees and jobseekers retraining for new careers... all receive between two and six months of training. During this period, they learn a trade and safety good practices on a training course that leads to a qualification. It also provides an opportunity for them to absorb the culture of NGE and learn more about its expertise. Over the last

two years, NGE has provided all the training required to qualify more than 50 people to work on rail catenary projects. Plate Forme, the Group training centre, has also provided training for specialist tunnel miners, formworkers, fibre optic cable installers and many other trades. Employment integration provides not only a valuable springboard for those who receive the training, but also twin benefits for NGE: new human resources in a jobs market of full employment, and a head start on tenders for new contracts. For the last two years, public contracting authorities have given preference to socially committed entrepreneurs with a local presence. Entrepreneurs who want and understand how to work with public employment agencies, and entrepreneurs who have the ability to train people and bring them into the world of work, this is what NGE is about.

### Training and integrating refugees

What better evidence of employment integration could there be than making a personal contribution to the worksites of the Grand Paris infrastructure project! The experience of 12 refugees who were welcomed in by NGE having fled Eritrea, Syria and Afghanistan tells

**NGE hired MORE THAN 500 people under employment integration initiatives in 2018**

**12 REFUGEES from Syria, Afghanistan and Eritrea have been trained as formworkers by NGE**

its own story. Initially provided with introductory training as formworkers, they spent a year alternating a fortnight at AFPA (the vocational training centre for adult learners) with a fortnight on site. Having gained their professional qualifications, they were hired on permanent worksite contracts. Driven by the FNTP (the French National Public Contracting Federation), this initiative is likely to be extended in 2019.

### Grants for École Centrale Casablanca students

As sponsor of the first intake of students for the École Centrale graduate school in Casablanca, NGE funded living expenses grants for 100 students in 2018, nearly half of whom were first-year students. It's a commitment that makes sense for a Group that employs more than 1,000 people in Morocco through its subsidiary company Générale Routière. The aim of this sponsorship is to accelerate the pace of upward social mobility for these young people, who are seen by NGE as a valuable talent pool.



VITAL FOR THE FUTURE OF OUR PLANET, THE ENVIRONMENT IS EQUALLY CRUCIAL TO THE FUTURE OF NGE, ITS APPEAL AS A CONTRACTOR AND EMPLOYER AND ITS LONG-TERM FUTURE. THE GROUP IMPLEMENTED ITS FIRST GLOBAL ENVIRONMENT PLAN IN 2018.

## ENVIRONMENT

### An ambitious, but realistic, plan

#### Eco-responsible worksites

Because engineered structures have a profound impact on the environment, and because they are built for the benefit of future generations, NGE ensures that every one of its work sites is eco-responsible with no greenwashing. This commitment is even stronger when NGE is the decision-maker responsible for PPP and Concession project design. The Saint-Flour bypass that will unlock access to the communities of Aurillac and Murat provides an excellent example. Not only was the natural world taken fully into account well before the first pickaxe hit the ground, but it also dictated the pace of work on site. So after a four-season inventory of wild plants and animals, NGE relocated protected species, removed fish temporarily, protected sensitive ecosystems and created offset areas. And the same applies to projects where NGE carries out the on-site work and contributes its expertise, like the project to widen the A63 motorway in the Landes region, where the Group has created wildlife refuges and breeding sites. In addition to these measures, innovative systems are being introduced on worksites to help protect and conserve our planet. For example, Diagnosol Express®, which provides real-time analysis of pollutants present in excavated spoil to ensure that they are diverted as quickly as possible to the most appropriate recovery and reclamation channels (see page 48). The same principle is also applied through the Rue des Matériaux app; an online market developed by NGE that will eventually facilitate the recycling of materials, plant and equipment.

#### A Group with a plan

Following introduction of its first environmental plan in 2018, NGE has ensured that all its operating entities have taken ownership of it and implemented it at local level. NGE senior executives have embarked on a wide-ranging tour of the regions as part of this initiative. A new Responsible Purchasing policy has also been introduced. Lastly, and to maximise both the impact and consistency of its actions from 2019 onwards, a cross-functional department has been set up to coordinate all Group CSR initiatives and provide leadership for all operational and central services entities.

**BYPASS**  
for Saint-Flour.



"On the A63 project, solutions are in place to collect and filter water to prevent suspended solids from entering natural watercourses. To protect semi-aquatic animals and fish, we've developed fisheries and used plant engineering to remediate riverbanks. Lastly, all growing plants were clearly marked in conjunction with an ecologist so that they could be removed, stored and replanted."

**Romanic Bobebe**, Quality, Safety & Environment Engineer



**A63**  
Water collection and filtering solutions.

€2.6<sub>m</sub>

That was the total amount committed in 2018 by NGE to innovative projects directly affecting the environment

That's equivalent to

42% of the total innovation budget

## 2019-2021 FIVE NGE ENVIRONMENTAL COMMITMENTS

In addition to the initiatives implemented in 2018, NGE is rolling out a new three-year plan that addresses the environmental goals set by the UN in its 2030 Agenda for Sustainable Development.

AN INCREASINGLY FUEL-EFFICIENT AND CLEAN PLANT, MACHINERY AND VEHICLE FLEET.  
8% LOWER ENERGY CONSUMPTION BY 2021

RECOGNISED LEADERSHIP IN FRANCE FOR MATERIALS RECOVERY.  
1 MATERIALS RECOVERY FACILITY IN EACH MULTI-EXPERTISE REGION BY 2021.

A LONG-TERM COMMITMENT TO ENVIRONMENTAL RESEARCH.  
AT LEAST 1/3 OF THE R&D BUDGET DEVOTED TO THE ENVIRONMENT AND BIODIVERSITY OVER A 3-YEAR PERIOD.

CONSERVATION OF NATURAL RESOURCES.  
50% OF ALL WASTE RECOVERED AND RECYCLED BY 2021.  
10% LESS DRINKING WATER CONSUMED BY 2021.

ECO-RESPONSIBLE EMPLOYEES.  
100% OF EMPLOYEES INFORMED AND TRAINED BY 2021.



DOWN BY MORE THAN THREE POINTS  
DESPITE INCREASING EMPLOYEE  
NUMBERS, OUR FREQUENCY RATE<sup>(1)</sup>  
FOR OCCUPATIONAL ACCIDENTS  
IN 2018 UNDERLINES THE NGE  
COMMITMENT TO THE HEALTH  
AND SAFETY OF ITS TEAM MEMBERS.  
AGAINST A BACKGROUND OF INTENSE  
ACTIVITY AND THE INFLUX OF MANY  
NEW EMPLOYEES, KEEPING UP  
THIS MOMENTUM IS A COLLECTIVE  
IMPERATIVE FOR EVERYONE  
IN THE GROUP.

## HEALTH & SAFETY

### Shared vigilance

In 2018,  
the frequency rate was  
**15.06**  
(18.71 in 2017)

Next target:  
a rate below  
**10** by 2021

(1) Frequency rate:  
 $\frac{\text{no. of lost-time accidents} \times 1,000,000}{\text{total number of hours worked}}$



**"WE MUST ALL LOOK  
OUT FOR EACH OTHER  
AND IMPROVE OUR  
SHARED VIGILANCE".**

#### Fewer work-related accidents or injuries that lead to long term or short term absences

With a frequency rate of just 15.06 in 2018, compared with the industry average of 40 in construction and 30 in public works contracting, NGE is one of the highest-performing companies. This improved rate reflects the determination of the Group to make no compromises on safety. This proactive commitment is clearly stated in the NGE ambition of reducing the rate to below 10 by 2021. To help achieve this target, the Group will focus in 2019 on two major areas of occupational accident prevention: compliance with crucial safety rules and the provision of additional support for temporary employees.

#### Digitalised safety systems

Digital technology is now being used to boost efficiency in accident prevention and safety promotion. The digital reporting of inspections, safety induction sessions for new employees and 15-minutes safety briefings all help to accelerate data processing, and therefore sharing of best practices. These systems leave accident prevention officers free to focus on their core tasks, become more responsive and work even more closely alongside on-site teams. In 2019, NGE plans to digitalise the single risk assessment document and the safety/environmental induction sessions for new employees to ensure that worksite

operations managers and employees have direct contact with Group best practices and the latest accident prevention/safety issues.

#### Protecting the health of our people

To help with the physical effects inherent in certain jobs, NGE has introduced a specific response plan for employees aged 50 and over whose responsibilities involve them in potentially damaging working movements and postures. It includes reducing the weight of loads to be carried, identifying repetitive tasks and automating handling processes.

#### Close supervision of underground working

With six tunnel boring machines soon to be in action for the Grand Paris project, NGE is focusing specifically on underground worksite safety. Exercises were conducted with the Paris fire brigade (BSPP) throughout 2018 to learn effective rescue techniques and evacuation routes. A workplace first aiders training course focusing specifically on underground environments will be introduced shortly. Once approved by CARSAT<sup>(2)</sup>, NGE will become only the seventh accredited training centre in France for this type of safety instruction.

#### NGE is one of the first companies to set up its own CSE

The early-stage introduction of the NGE Social & Economic Committee (CSE) has freed up the time and energy needed to create a new body dedicated entirely to safety issues: the Health, Safety and Working Conditions Committee (CSSCT). Its members focus exclusively on how best to respond and improve practices on the basis of worksite feedback.



**MARION DEMANGE,**  
QSE Engineer

**"In six months, I provided safety and accident prevention information to around a hundred employees on the Line 14 worksite. They understand from the outset that my job is to help them stay safe, so they are very happy to receive this initial safety information. It's crucial to build this kind of trust-based relationship at an early stage, because it leaves me free to provide daily supervision of their on-site safety."**



WITH WOMEN ACCOUNTING FOR BETWEEN 4% AND 19% OF EMPLOYEES DEPENDING ON ENTITY, GENDER DIVERSITY AT NGE IS A HIGHLY VARIABLE REALITY AND ONGOING PRIORITY. IT'S AN ISSUE ON WHICH THE GROUP IS FOCUSING A VERY REAL COMMITMENT AND SIGNIFICANT RESOURCES TO ENSURE THAT IT EMPLOYS FOUR TIMES MORE WOMEN BY 2022 THAN IT DOES TODAY.

## GENDER DIVERSITY

### A priority commitment

**D**oubling the number of women in management and production at NGE by the end of this year - and quadrupling it by 2022 - is a challenging target. But it's a crucial one, because it's important to change the way the construction and civil engineering industries are regarded and the role of women working in them, and to attract women to enter what is still a male-dominated workplace.

#### A working group backed by resources

To meet these challenges, NGE formed a working group in 2017. Known as 'NGE Mixité', this group generated great enthusiasm in 2018, attracting unsolicited applications and forming two working subgroups to focus on worksite leadership and production personnel. Its first measures were also implemented during the year: Women on worksites are now provided with appropriate personal protection equipment, and every worksite now has its own

changing facilities for women. Tutors and mentors are being introduced to encourage more women to join the Group. With thousands of new hires expected over the coming years, NGE plans to use this lever to increase the proportion of women in its workforce.

#### NGE becomes the first construction and civil engineering group to join the InterElles circle

This commitment is also reflected in the fact that NGE became a member of the InterElles circle in October 2018. NGE is the first construction and civil engineering group to join this organisation devoted to promoting workplace gender diversity and equality. Formed 17 years ago with a membership of 14 other major hi-tech and innovative companies, including Canon, Dassault Systèmes, Engie and Orange, its network is focused on increasing gender

Of the 200 people working on national major projects,

more than **19%** are women

#### THE INTERELLES CIRCLE

NGE attended the organisation's annual general meeting for the first time in 2018, represented by Mathilde Roux (pictured here in the background).

#### SIMON PERRIN, site engineer

"The guys on the work site behave differently with a woman in charge than with a man. It's something deeply rooted in construction and civil engineering. But the lines are shifting as new generations come through. At my engineering school - ISA BTP - there was a 50-50 gender balance among the student population."

#### SASKIA VAN PROOIJEN, environment officer

"Here, there's a very strong feeling that everyone is equal, regardless of whether you're a site supervisor, engineer or labourer, man or woman, older or younger. That's why I always tell my friends: come and see for yourself... there's nothing to be afraid of. No one gets any hassle here, and everyone's respected."

**Multiplying the number of women in management and production**

**x2**  
by the end of 2019

**x4**  
by the end of 2022

#### AGATHE DESTANG, site engineer

"Managing men - and well-qualified men at that - has turned out to be easier than I expected. They listen to me because I listen to them. And whether you're a man or a woman, it's the same, especially when you're fresh from engineering school. It's important not to get above yourself."

**36%**  
of those hired following internship are women

diversity in science and technology, encouraging career development for women, and lobbying government and other public authorities. Becoming a member of this network reflects the NGE commitment to help change the way construction and civil engineering are regarded, demonstrate how innovative they are, raise their profile among women - especially engineers - and swap best practices.

In 2018, NGE also renewed its membership of Elles Bougent and took part in the sixth national *Sciences de l'Ingénieur au Féminin* day in November. This event holds discussion sessions between secondary school students and practising engineers to encourage younger people to embrace new vocations. Four women from the Group will also compete for the ESTP Awards in 2019, which are sponsored by NGE. These awards are presented to former ESTP students who excel in their professional practice.



WE ARE **FINANCIALLY**  
**SOUND**





CONSOLIDATED  
income statement

In thousands of euros	31/12/2018	31/12/2017
<b>Income from Operating Activities</b>	<b>2,028,293</b>	<b>1,868,588</b>
Other Income from Activities	46,912	40,168
Purchases consumed	(380,459)	(325,734)
Personnel expenses	(542,270)	(494,863)
External expenses	(1,010,949)	(957,420)
Taxes and Duties	(24,611)	(21,947)
Amortisation expense	(75,960)	(75,501)
Provisions	(223)	6,874
Change in work-in-progress and finished product inventories	2,202	719
Other Operating Revenue and Expenses	5,387	3,581
<b>OPERATING INCOME FROM ORDINARY ACTIVITIES</b>	<b>48,322</b>	<b>44,465</b>
Operating Income from Ordinary Activities	2.4%	2.4%
Other Operating Income and Expenses	(5,824)	(6,557)
<b>OPERATING INCOME</b>	<b>42,498</b>	<b>37,908</b>
Income from Cash and Cash Equivalents	62	63
Cost of Financial Debt - Gross	(9,719)	(10,148)
<b>NET COST OF FINANCIAL DEBT</b>	<b>(9,657)</b>	<b>(10,085)</b>
Other Financial Income and Expenses	367	(8,281)
Share of Net Income from Associates	(2,885)	(185)
Tax expense	(1,832)	4,619
<b>NET INCOME</b>	<b>28,491</b>	<b>23,976</b>
- Group share	25,479	24,352
- Non-controlling interests	3,013	(376)
<b>EARNINGS PER SHARE ATTRIBUTABLE TO COMPANY SHAREHOLDERS</b>		
Earnings per share - basic (Group share)	3.88	3.71
Earnings per share - diluted (Group share)	3.88	3.71

In thousands of euros	31/12/2018	31/12/2017
<b>CONSOLIDATED NET INCOME</b>	<b>28,491</b>	<b>23,976</b>
Other comprehensive income that may not be subsequently recycled to net income		
Actuarial adjustments	(892)	112
Re-measurement of fixed assets	16,522	
Other comprehensive income that may be subsequently recycled to net income		
Fair value change on Hedging Instruments	(144)	1,140
Translation adjustment	381	(494)
Income tax on comprehensive income	(5,332)	(432)
<b>NET INCOME AND GAINS AND LOSSES RECOGNISED DIRECTLY IN EQUITY</b>	<b>39,026</b>	<b>24,302</b>
Comprehensive income attributable to owners of the parent	36,014	24,712
Comprehensive income attributable to non-controlling interests	3,013	(410)





CONSOLIDATED STATEMENT  
of financial position



Assets

In thousands of euros	31/12/2018	31/12/2017
Goodwill	273,232	293,442
Intangible Assets arising from concessions	5,369	3,310
Other Intangible Assets	1,359	1,940
Property, Plant and Equipment	417,948	403,547
Investments in associates	7,953	8,376
Available-for-sale financial assets	22,277	19,023
Other financial assets	40,066	48,556
Other non-current assets	10,069	8,777
Deferred tax assets	1,927	7,748
NON-CURRENT ASSETS	780,200	794,719
Inventories	51,080	27,847
Customer receivables	870,029	675,648
Advance payments	13,323	7,499
Other current assets	165,949	147,526
Current tax assets	1,209	4,880
Cash and cash equivalents	273,387	193,290
CURRENT ASSETS	1,374,977	1,056,690
TOTAL ASSETS	2,155,177	1,851,409

Liabilities

In thousands of euros	31/12/2018	31/12/2017
Issued share capital	52,580	52,580
Bonuses	22,648	22,648
Reserves	194,124	170,375
Net income for the period	25,479	24,352
SHAREHOLDER EQUITY - GROUP SHARE	294,831	269,955
Non-controlling interests	6,255	12,022
TOTAL EQUITY	301,086	281,977
Long-term loans and other borrowings	304,391	305,254
Long-term provisions	79,587	90,465
Deferred tax liabilities	2,410	5,311
NON-CURRENT LIABILITIES	386,388	401,030
Current loans and borrowings	74,873	65,280
Bank overdrafts	130,393	125,795
Short-term provisions	6,110	2,658
Advances and payments on account received	79,770	48,371
Trade payables	693,526	548,844
Other current liabilities	476,635	371,825
Current tax liabilities	6,396	5,629
CURRENT LIABILITIES	1,467,703	1,168,402
TOTAL LIABILITIES	2,155,177	1,851,409



CONSOLIDATED  
cash flow statement

The consolidated cash flow statement is presented using the indirect method in accordance with IAS 7 amended and ANC recommendation 2013-03 of 7 November 2013. Using this method, the net income of consolidated companies is adjusted for the effects of non-cash transactions and items of income or expense associated with investment or financing cash flows. The interest and dividends paid by non-consolidated companies are shown in the financial and investment cash flows respectively.

There was no non-available cash at 31 December 2018.

In thousands of euros	31/12/2018	31/12/2017
CONSOLIDATED NET INCOME	28,491	23,976
Net amortisation, depreciation and provisions	92,202	76,928
Other operating income and expenses	(1,176)	919
Gains and losses on disposals	(53,797)	1,996
Share in net income of companies accounted for using the equity method	2,885	185
Dividends received (from shares in non-consolidated companies and companies accounted for using the equity method)	(443)	(73)
NET CASH FROM OPERATING ACTIVITIES AFTER TAX	68,162	103,931
Tax expense (including deferred taxes)	1,832	(4,619)
NET CASH FROM OPERATING ACTIVITIES BEFORE TAX	69,994	99,312
Change in tax payable	(47)	(2,662)
Change in operational Working Capital Requirement	33,698	(43,777)
NET CASH FLOW FROM OPERATING ACTIVITIES	103,645	52,873
Disbursements related to acquisitions of property, plant and equipment and intangible assets	(99,104)	(87,178)
Receipts related to disposals of property, plant and equipment and intangible assets	11,968	6,742
Investment in assets relating to concessions	(2,140)	(1,227)
Income / Expenditure related to acquisitions of financial assets	65,402	(4,723)
Impact of changes in Group structure		(14,026)
Dividends received (from shares in non-consolidated companies and companies accounted for using the equity method)	612	152
Change in loans and advances granted	(12,094)	(5,806)
Change in amounts due to non-current asset suppliers	5,024	5,141
NET CASH FLOW FROM INVESTMENT TRANSAC-TIONS	(30,332)	(100,924)
Dividends paid to the shareholders of the parent	(9,990)	(9,990)
Dividends paid to non-controlling interests in consolidated companies	(1,414)	(1,260)
Receipts from new borrowings	80,207	194,138
Repayment of borrowings	(67,119)	(182,108)
NET CASH FLOW FROM FUNDING TRANSACTIONS	1,684	780
Impact of exchange rate fluctuations	502	(1,282)
CHANGES IN NET CASH	75,497	(48,553)
CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE PERIOD	67,495	116,048
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	142,994	67,495





NON-FINANCIAL REPORT

key performance indicators



NGE performance indicators	Unit	2018	2017	Change
ECONOMY & GOVERNANCE: KEY FIGURES				
Total revenue	€m	2,028	1,869	8.5%
Proportion of Rev covered by QSE certification	%	80.4%	76.4%	14.2% <sup>(1)</sup>
Total investment in hardware (plant, equipment, vans and cars – Exc. IT and buildings)	€m	100	98	2%
Innovations under development	Nb	73	62	18%
HUMAN RESOURCES				
Workforce	Nb	11,049	10,703	3.2%
Percentage of which are women	%	9%	8%	21.3% <sup>(1)</sup>
Percentage employed under Permanent Full-Time Contracts	%	95%	96%	2.2% <sup>(1)</sup>
Percentage employed under Fixed-Term Project-Specific Contracts	%	4%	3%	33.2% <sup>(1)</sup>
Work/study contracts (apprenticeship + vocational training contracts)	Nb	520	352	47.7%
Number of employees joining	Nb	3,460	3,523	-1.9%
Number of employees leaving	Nb	2,827	2,003	41.1%
Number of tutors	Nb	297	277	7.2%
Total number of training hours (inc. work/study)	Nb	332,689	254,363	30.8%
Percentage represented by apprenticeships	%	56%	52%	40.8% <sup>(1)</sup>
Number of trainees trained (inc. work/study trainees)	Nb	9,834	8,145	20.7%

(1) By value.

NGE performance indicators	Unit	2018	2017	Change
OCCUPATIONAL HEALTH & SAFETY				
Frequency rate for lost-time occupational accidents	Rate	15.06	18.71	-3.65
Occupational accident severity rate	Rate	0.82	0.90	-0.08
Number of lost-time occupational accidents	Nb	286	323	-11%
Number of non-lost-time occupational accidents	Nb	244	199	23%
Number of days lost	Nb	15,527	15,599	-0.5%
Number of travel-related accidents	Nb	55	46	20%
Number of near misses and incidents reported	Nb	1,675	978	71%
Number of absences for occupational illnesses	Nb	53	46	15%
Number of worksite safety inspections conducted by managers (RDs and above)	Nb	2,111	1,461	44%
ENVIRONMENT				
Direct GHG emissions from the machinery fleet (plant + trucks)	TeCO <sub>2</sub>	149,427 <sup>(2)</sup>	73,855	-
Average CO <sub>2</sub> emissions from the Segauto fleet	g/km	114	120	-5%
No. of environmental accidents (pollution, pipeline leaks, etc.)	Nb	286	239	20%
Number of emergency exercises conducted	Nb	94	72	31%
Number of environmental regulation infringements	Nb	74	62	19%
Number of environmental complaints	Nb	9	7	29%
Number of worksite environmental inspections conducted with managers (RDs and above)	Nb	508	302	68%
GHG emission reductions as a result of using rail transport	TeCO <sub>2</sub>	986	854	15%
QSE				
Number of worksite QSE inspections	Nb	4,142	3,090	34%
Number of 15-minute QSE briefings led by TLs & SMs	Nb	10,229	8,069	27%

(2) Direct GHG emissions from the machinery fleet (plant + trucks) 2018 indicator. Change in reporting scope and method.



2018 PROGRESS UPDATE  
on the Global Compact

NGE CONDUCTS BUSINESS ON THE BASIS OF RESPECTING THE ENVIRONMENT AND ALL ITS STAKEHOLDERS (EMPLOYEES, PARTNERS AND CUSTOMERS) FOR THE BENEFIT OF CURRENT AND FUTURE GENERATIONS.

*"Shrinking and controlling its environmental footprint, promoting occupational safety, social cohesion and employee personal and professional fulfilment, working to support regional development, and full compliance with business ethics are all integral to NGE strategy. NGE has been a signatory to the United Nations Global Compact for several years. As a signatory, the Group supports and applies the ten principles of the Global Compact grouped together into four fundamental themes: human rights, working conditions, environmental protection and anti-corruption. We are renewing our commitment to the Global Compact and expressing our commitment to progress its principles through our strategy and corporate culture."*

Antoine Metzger, Chairman of NGE

Correspondence table

HUMAN RIGHTS		
1. Businesses should support and respect the protection of internationally proclaimed human rights	Creation of a cross functional department to coordinate CSR initiatives	page 58
2. Make sure that they are not complicit in human rights abuses	Responsible purchasing policy	page 58
INTERNATIONAL LABOUR STANDARDS		
3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	Employee shareholding Introduction of the CSE and CSSCTs	pages 20-21 page 61
4. The elimination of all forms of forced and compulsory labour	Employee training and induction Employment integration Recruitment of refugees Gender diversity	pages 22-23 pages 45/56-57 pages 56-57 pages 62-63
5. The effective abolition of child labour	Responsible purchasing policy	page 58
6. The elimination of discrimination in respect of employment and occupation	Workplace Quality of Life survey Combating the physical effects of certain jobs	pages 24-25 page 61
ENVIRONMENT		
7. Businesses should support a precautionary approach to environmental challenges	Eco-responsible worksites Environment Plan	page 58 page 59
8. Undertake initiatives to promote greater environmental responsibility	The biorefinery project in the PACA region of France The Palais du Grand Large project Environment Plan	page 47 page 38 page 59
9. Encourage the development and diffusion of environmentally friendly technologies	Re-use of materials Continuous analysis of pollutants Digitalisation in all areas of the multi-expertise model	page 37 pages 44/48-49 page 48-49
ANTI-CORRUPTION		
10. Businesses should work against corruption in all its forms, including extortion and bribery	Business ethics training	page 22



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