Workforce-related, social and environmental information

VINCI develops and builds structures in the public interest and for long-term use. These structures have a major impact on the regions where they are located and the quality of life of their residents. The Group's activities, by their nature, must therefore strive to deliver strong overall performance, not only in technical, economic and financial terms, but also with respect to social and environmental outcomes. For this reason, VINCI addresses the related issues in all its business lines.

VINCI's sustainable development policy complies with two complementary principles. The first is to reduce the environmental impact of projects and ensure that the socio-economic benefits of the Group's activities on local populations and regions are long-lasting. The second is to work with the stakeholders in the Group's businesses to come up with the most efficient solutions serving the public interest in an economy of scarcity.

The Group has been shaping its stakeholder approach since 2012, laying down its sustainable development values and commitments in the "Together" Manifesto. Available in 31 languages, the Manifesto lays down a set of shared guidelines to be applied in all of VINCI's businesses, with the aim of aligning the actions of its operating entities and teams around the world.

VINCI's sustainable development policy is collective and proactive. The aim is to give each business unit the opportunity to highlight its actions to enhance social and environmental performance, and to identify its strategic priorities. These priorities are then set out in an action plan.

To respond to the current climate emergency and fulfil the Group's leadership role, in 2019 VINCI reviewed its environmental goals and ultimately redefined its target to reduce its greenhouse gas emissions within its direct scope (Scopes 1 and 2). The Group pledges to reduce the direct impact of its business activities, setting a first milestone for 2030 to scale back its emissions by 40% from 2018 levels.

The human side of VINCI's businesses was also strengthened during the year through flagship initiatives like the Give Me Five programme and other measures to respect, protect and promote human rights.

This policy is also discussed on pages 22 to 30 of this Annual Report. Additional, regularly updated information is available on the Group's website at www.vinci.com, in particular examples of the innovative approaches implemented by the Group's companies, arranged by category and type of challenge.

This chapter contains VINCI's non-financial performance statement published in line with Articles L.225-102-1 and R.225-104 to R.225-105-2 of the decree passed in July 2017, which transposed Directive 2014/95/EU of 22 October 2014, known as the Non-Financial Reporting Directive into French law

The non-financial performance statement includes the following information:

- the Group's business model, as described in the "Direction and strategy" chapter of the Annual Report, page 15;
- the description of the Group's main overall performance commitments, presented in the "Sustainable development" chapter of the Annual Report, pages 22 to 30;
- the description of the main non-financial risks, presented in chapter D, "Risk factors and management procedures" of the Report of the Board of Directors, pages 178 to 190;
- the description of the programmes and action plans implemented by VINCI to address its social and environmental issues, and the results of these programmes, including key performance indicators, presented in this chapter of the Report of the Board of Directors.

Material CSR issues were identified by the Environment Department and the Social Responsibility Department, in collaboration with the Audit and Internal Control Department. Environmental issues were also identified through a materiality assessment as well as interviews conducted in 2018 with about 40 internal and external stakeholders. These issues, their actions and their key performance indicators, are presented in the summary table on the following page.

Summary table – Non-financial performance statement

Issue	VINCI's response	Action plans	Key performance indicators	Coverage in chapter E
Health, safety and security of employees, temporary staff and subcontractors	- Zero accidents objective at all levels - Create a Group-wide safety awareness culture	Network of occupational health and safety specialists in business lines Health and safety training Mapping of the Group's major risks Reporting procedure and analysis of near misses, severe accidents and fatal accidents	- Percentage of companies with no lost-time workplace accidents - Lost-time workplace accident frequency rate (employees and temporary staff) - Lost-time severity rate (employees)	1.2 Pages 195-198
Employability and skills development	- Promote sustainable employability by developing skills and sharing the benefits of performance			1.3 Pages 198-203
Labour relations	Ensure continuity in labour relations via a decentralised organisation to better reflect the needs of each business line Foster innovation in labour relations and new forms of dialogue	- Online platform for the European Works Council (EWC) - Innovative training for the Executive Management Council (EMC) and EWC members - CSR Committee for the EWC - Consultation Committee for the EMC - Collective agreements	- Percentage of collective agreements outside France - Number of employees worldwide serving as employee representatives	1.4 Pages 203-204
Inclusion and diversity	Overarching inclusion objective: prevent all forms of discrimination and promote equality Develop a diversity culture Promote gender equality Support people with disabilities	- Network of diversity coordinators - Training to develop inclusive management - Self-assessment tool on discrimination - Accreditation for certain Group companies - Targets relating to the proportion of women in management and senior leadership roles - Work to support the inclusion of people with disabilities	- Number of companies with diversity accreditation - Gender equality index in France - Percentage of women managers - Percentage of female senior executives (management and executive committees) - Percentage of managers and non-managers with disabilities	1.5 Pages 204-206
The Group's socio- economic footprint in regions	- Involvement and development in regions, work to improve acceptability of Group projects - Uphold social cohesion in regions through professional integration - Relations with civil society	- Measurement of the socio- economic footprint of businesses in France and for a number of major projects - Creation of VINCI Insertion Emploi (VIE), launch of the Give Me Five programme and other actions to promote integration - Dialogue, consultation and exchange with stakeholders, regional leaders, customers and users	- Number of jobs supported in France and contribution to GDP - Number of people participating in ViE integration programmes - Number of integration hours under ViE programmes - Total amount paid by Group foundations to prevent exclusion and promote integration	2.1 Pages 209-216
Relations with suppliers and subcontractors	Develop a responsible purchasing initiative Support the development of suppliers and subcontractors Take social and environmental criteria into account in Group purchasing	- Strengthened governance of responsible purchasing - Publication of a practical guide on responsible purchasing - Supplier self-assessment questionnaire and CSR improvement plans	Percentage of purchases incorporating responsible purchasing criteria Percentage represented by SMEs among the Group's approved suppliers	2.2 Pages 216-218
Respect for human rights	- Commitment to respect the rights of people and local communities that could be impacted by VINCI projects	- Analysis and mapping of human rights risks associated with business activities - Publication of VINCI's Guide on Human Rights - Launch of an e-learning module - Prevention and evaluation programmes	- Percentage of staff who have received VINCI's Guide on Human Rights - Number of human rights assessments	2.3 Pages 218-219

Summary table - Non-financial performance statement (cont.)

Issue	VINCI's response	Action plans	Key performance indicators	Coverage in chapter E
Business ethics	- Group-wide training approach coordinated at the highest level of the organisation - Code of Ethics and Conduct, Anti-corruption Code of Conduct, Guide on Human Rights, and statement on occupational health and safety - Programme to teach new concepts and drive exemplary management	- Ethics and Compliance Club - GDPR Representatives Club - Ethics e-learning and classroom training - Dissemination of framework documents (Code of Ethics and Conduct, Anti-corruption Code of Conduct, etc.) - Whistleblowing procedure, VINCI Integrity system - Third-party assessment process through a questionnaire and quality audit	- Number of employees trained on ethics	2.4 Pages 219-221
Climate change	- Reduce direct greenhouse gas emissions by 40% - Act throughout the value chain by reducing Scope 3 carbon emissions - Integrate climate resilience in practices and solutions	- Integration of eco-design throughout the project life cycle - Transition to more electric vehicles in the fleet and upgrade of machinery and heavy goods vehicles - Self-consumption of electricity via renewable energy generation - Signing of power purchase agreements (PPAs) and purchases of guarantees of origin - Replacement of remote sites hooked up to the power grid with more energy-efficient remote sites - No-stop electronic toll lanes - Use of plant-based fuel at coating plants - Development of expertise in energy performance	- Carbon intensity in tCO₂eq/€m of revenue - Tonnes of CO₂ equivalent saved by electronic toll lanes - Energy intensity in MWh/€m of revenue - Total fuel consumption - Greenhouse gas emissions (Scopes 1, 2 and 3 in tCO₂eq) - Monitoring of energy consumption - Amount of electricity from renewable energy sources (in MWh)	3.2 Pages 225-230
Circular economy	- Limit extraction of virgin materials in favour of recycled materials - Promote construction techniques and materials that economise on natural resources - Improve waste sorting and recovery	- Use of recycled materials and limitation of the extraction of virgin materials - Purchase of reused or reconditioned materials - Use of low-carbon concrete and biosourced materials - Development of innovative techniques and materials that economise on natural resources - Waste recycling platforms for construction worksites at Eurovia - Development of circular economy solutions - Stakeholder relations and collaboration with professional organisations on the environmental impacts of raw materials	- Consumption of asphalt mixes to maintain VINCI Autoroutes motorways (in tonnes) - Amount of recycled mix to maintain VINCI Autoroutes motorways (in tonnes) - Breakdown between hazardous and non-hazardous waste - Percentage recovery of hazardous and non-hazardous waste - Percentage of asphalt mix made with reclaimed asphalt pavement at Eurovia - Number of worksite waste recycling platforms at Eurovia - Percentage of recycled materials production in total aggregate production at Eurovia	3.3 Pages 230-233
Natural environment	- Assess and avoid noise pollution and environmental incidents in the Group's business activities - Reduce water consumption, especially in areas of water stress - Initiate a programme to achieve a zero net loss of biodiversity	Reduction of noise and light pollution Prevention of water pollution Reduction of water consumption in areas of water stress Prevention of the loss of natural land Limitation of the fragmentation of natural habitats and maintenance of ecological connectivity Restoration of the ecological balance of wetlands and waterways Control and removal of invasive non-native species and conservation of local plant life	- Number of partnerships in effect - Percentage of motorways in France with systems to protect against accidental pollution - Consumption of water purchased and water from boreholes in cu. metres - Percentage reduction in the use of phytosanitary products at VINCI Autoroutes - Number of crossings for small and large wildlife and fenced sections in km installed along VINCI Autoroutes motorways - Percentage of quarries that have created a local committee for consultation and monitoring - Percentage of quarries that have formed partnerships with local naturalists - Number of data on flora and fauna sent to the national inventory of natural heritage (INPN) by Eurovia quarries	34 Pages 233-237

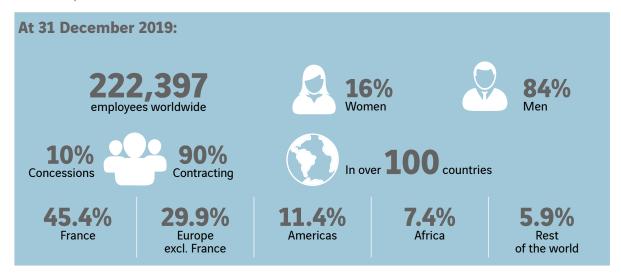
VINCI's duty of vigilance plan, developed to meet the requirements of Law no. 2017-399 of 27 March 2017 on the duty of vigilance of parent companies and subcontracting companies, is presented in this chapter on pages 237 to 258.

Workforce-related performance 1.

1.1 VINCI's employees, drivers of the Group's performance

VINCI's economic development policy is based on a complementary set of short- and long-term business activities performed through a decentralised organisation. The Group's employees are vital to the success of its business model. Its operating methods therefore prioritise people over systems and are based on the view that sustained business success requires an ambitious approach to human resources.

Operating in more than a hundred countries in 2019, VINCI increased its workforce by 5% to 222,397 employees from its total headcount in 2018 (211,233 employees). This increase reflects business growth and the acquisition and integration of new companies within the Group. Staff employed by European entities as a percentage of the total workforce came to 75% in 2019. Staff employed outside Europe stood at 25%, similar to 2018.



At 31 December 2019, VINCI's workforce consisted of 43,127 managers (19% of the workforce) and 179,270 non-managers (81% of the workforce). Since 2014, the percentage of managers has remained stable at 19%. Over the same period, the percentage of female staff rose from 14.2% to 16% of total staff (15.4% in 2018). Out of all female staff, 20.3% are managers (see paragraph 1.5, "Inclusion and diversity", page 204, on the objectives and actions concerning the role of women in the Group).

Workforce at 31 December 2019 by category, gender and business line, with change

				20	019					2018	2019/2018
	VINCI Autoroutes	VINCI Airports c	Other oncessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.	Total	%	Total	Change
Managers	1,061	1,586	457	16,158	5,669	17,370	826	43,127	19.4%	40,172	+7.4%
Men	665	1,047	311	13,420	4,807	13,662	446	34,358	79.7%	32,164	+6.8%
Women	396	539	146	2,738	862	3,708	380	8,769	20.3%	8,008	+9.5%
Non-managers	5,034	12,081	1,123	66,102	39,637	54,775	518	179,270	80.6%	171,061	+4.8%
Men	2,922	8,122	603	57,797	35,264	47,493	150	152,351	85.0%	146,508	+4.0%
Women	2,112	3,959	520	8,305	4,373	7,282	368	26,919	15.0%	24,553	+9.6%
Total	6,095	13,667	1,580	82,260	45,306	72,145	1,344	222,397	100.0%	211,233	+5.3%
Men	3,587	9,169	914	71,217	40,071	61,155	596	186,709	84.0%	178,672	+4.5%
Women	2,508	4,498	666	11,043	5,235	10,990	748	35,688	16.0%	32,561	+9.6%

1.1.2 Types of employment contract, and changes

At end-2019, 191,746 staff were employed under permanent job contracts and 30,651 under non-permanent contracts (primarily fixedterm contracts in France). The Group's business lines make use of temporary staff to adjust labour needs to the pace of their business activities. In 2019, 14,979 temporary staff (full-time equivalent) worked for VINCI in France, a rise of 4.7% from 2018, in line with the Group's business growth. Permanent jobs accounted for 95% of employment in France. VINCI promotes the integration of young people on work-study programmes, allowing them to link the theoretical knowledge acquired during courses delivered by training centres with practical on-the-job experience. It signed the "Charter in favour of training through work-study programmes" with France's Ministry for Apprenticeship and Professional Training in 2011. On average over the year, 5,677 young people received training under work-study programmes within the Group in 2019 (5,029 in 2018).

Workforce at 31 December 2019 by type of employment contract and business line, with change

				20	19					2018	2019/2018
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.	Total	%	Total	Change
Permanent job contracts (*)	5,913	11,704	1,250	74,407	41,947	54,170	1,193	190,584	86%	181,359	+5%
Site contracts (**)	-	-	-	224	127	811	-	1,162	0%	1,133	+3%
Non-permanent job contracts (***)	100	1,920	300	4,279	1,913	15,721	63	24,296	11%	22,992	+6%
Work-study programmes	82	43	30	3,350	1,319	1,443	88	6,355	3%	5,749	+11%
Total	6,095	13,667	1,580	82,260	45,306	72,145	1,344	222,397	100%	211,233	+5%
Temporary staff (full-time equivalent)	4	850	14	9,037	4,349	14,184	33	28,471	13%	27,561	+3%

(*) Unlimited-term contracts for France. (***) Contract type specific to France. (***) Fixed-term contracts for France.

1.1.3 Recruitment and departures

Employee turnover of approximately 28% in 2019, which is in line with that of the sector, is explained by the expiry of worksite contracts, in particular outside France. This reflects a Group recruitment policy adapted to new worksites.

Recruitment

Worldwide, the proportion of permanent employment contracts (permanent job contracts, unlimited-term contracts, site contracts) among new hires rose from 53.6% in 2018 to 54.6% in 2019. VINCI again pursued its recruitment policy in 2019. In particular, 6,030 young people were hired, accounting for more than 18% of all new hires in permanent jobs. VINCI hired 62,064 people worldwide in 2018, including 33,858 in permanent jobs (11,371 in France).

VINCI promotes local employment and career progression within the Group. Intragroup staff transfers totalled 2,448 in 2019, (2,298 in 2018), of which 93% within a business line and 7% to another business line.

Reasons for departure

Contracting business operations take place at temporary worksites over a relatively short period. They typically employ a large number of people whose contracts expire once the project is completed or who seek employment with another local company to avoid having to move. In the Concessions business, particularly in the motorways business line, the seasonal variations in activity also explain the number of departures, which are included under the line item "expired contracts".

Departures by reason and by business line, with change (*)

				20)19					2018	2019/2018
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction		Total	%	Total	Change
Expired contracts (**)	780	1,404	120	3,355	3,327	13,710	174	22,870	42%	22,241	+3%
Resignations	49	697	173	6,156	2,844	5,575	77	15,571	29%	13,406	+16%
Redundancies	-	27	2	318	334	1,222	-	1,903	4%	1,258	+51%
Dismissals	35	238	41	2,148	1,692	3,082	17	7,253	13%	5,848	+24%
Other reasons (***)	104	263	57	2,724	1,030	2,435	89	6,702	12%	6,235	+7%
Total	968	2,629	393	14,701	9,227	26,024	357	54,299	100%	48,988	+11%

1.1.4 A Group committed to promoting social and professional integration

Given the diversity of regions and businesses in which the Group operates, VINCI is highly attentive to the social and professional integration issues that it encounters on the ground day to day, and to the increasing focus given to these issues by local authorities in their bidding processes. Several years ago, the Group thus created a dedicated entity, VINCI Insertion Emploi (ViE), which supports the longterm unemployed and aims to make integration a source of added value for all stakeholders (see paragraph 2.1.2, "Measures put in place by VINCI to maintain social cohesion in communities and develop employment", page 210).

Group performance in terms of social and professional integration

- Number of hours worked by employees on integration programmes managed by VINCI Insertion Emploi (ViE): 1,033,253 in 2019 (804,678 in 2018)
- Number of full-time equivalents managed by ViE: 2,375 in 2019 (2,107 in 2018)

1.2 Health, safety and security of employees, temporary staff and subcontractors

1.2.1 General health and safety policy

Due to the nature of its business activities, guaranteeing optimal safety for its employees is a key issue for VINCI. Achieving zero accidents remains VINCI's priority in this area. Reiterated in VINCI's Manifesto, the goal applies to all individuals - employees, temporary staff or subcontractors - working on a VINCI worksite or site under operation (see paragraph 4.3, "Duty of vigilance with regard to health and safety", page 240).

To reach this goal, VINCI's health and safety policy relies on managers to be directly accountable for bringing all employees on board in supporting a safety culture. The Group does this by giving special focus to training its managers. This policy is implemented on the ground by a community of more than 2,500 health and safety coordinators and managers.

VINCI's health and safety policy includes diverse initiatives, such as 15-minute safety sessions that bring together all individuals involved at a worksite, analysis of near misses and accidents, training for worksites employing multiple nationalities (over a million hours of training on health and safety are provided every year), drug and alcohol abuse programmes, and road safety awareness. The business lines define and implement initiatives and measures adapted to their activities.

At Group level, the health and safety coordination system ensures the implementation of VINCI's H&S policy. This worldwide system brings together the heads of health and safety networks in all the business lines. It aims to foster the sharing of best practices, improve the reliability of H&S indicators, and devise new ways of making progress, in keeping with each business activity's specific situation. Working closely on the ground, accident prevention Pivot Clubs and internal collaborative platforms help disseminate and monitor health and safety measures for the community of H&S coordinators and managers.

^(*) Excluding changes in consolidation scope. (**) Expiry of fixed-term, site or work-study contract, or retirement. (***) Includes termination during trial period and mutually agreed contract termination for France.

Employee representatives also play a key role in health and safety. Occupational health and safety is a priority focus in each stage of relations between Group companies and employee representative bodies. The statement on occupational health and safety, defined in collaboration with the Group's H&S coordination team, was signed by the Chairman and Chief Executive Officer and the Secretary of the European Works Council in 2017. It sets out guidelines for applying VINCI's health and safety policy, stressing the importance of the zero accidents objective, and the essential and fundamental steps to be taken: risk analysis; wearing of protective equipment; application of procedures, operating methods and work arrangements; and safety awareness. The document also provides measures for progress and initiatives within Group companies to explore ways of improving health protection and the prevention of occupational risks. This statement upholds the shared belief that progress can only take place with the support of all employees and their representatives by promoting a culture of workplace safety. The employee representatives of each entity are kept informed of these issues in a transparent manner. They are also expected to contribute ideas for actions that could improve working conditions and occupational risk and accident prevention. At Group level, every Group Works Council and European Works Council meeting opens with an update on health and safety issues. Dialogue on these issues between employees, their representatives and management is pursued at the local level across all business activities, as shown with the partnership between the French Professional Agency for Risk Prevention in Building and Civil Engineering (OPPBTP) and Eurovia to design a one-week training programme for employee representatives in France.

In 2019, VINCI progressed further in promoting a safety culture for all employees, disseminating safety guidelines, identifying major risks, as well as reporting and analysing both accidents and near misses. The DEEP tool continued to be developed within VINCI to identify and classify direct causes (unsafe acts and conditions), indirect causes (human and organisational factors) and root causes (management and systemic deficiencies) of workplace accidents and near misses with high potential severity. This tool reinforces the actions taken to control these risks and implement new measures. The purpose is not merely to reduce the number of accidents, but to develop a daily prevention and safety culture as well. Taking further steps in this area, VINCI joined the Institute for an Industrial Safety Culture (ICSI) in 2018 and the Foundation for Industrial Safety Culture (FonCSI) in 2019 to take part in a research programme on ensuring safety in the future and how to fund it. Safety events are held regularly every year worldwide in all VINCI business lines.

of Group companies had no lost-time workplace accidents in 2019

VINCI companies that operate infrastructure implement policies aiming to achieve zero accidents or limit the consequences of accidents that occur at customer sites or are caused by customers. For example, the VINCI Autoroutes Foundation for Responsible Driving conducts studies and raises large-scale public awareness about the risks of driving under the influence of alcohol or when affected by inattention due to drowsiness, fatique or distraction. VINCI Airports and VINCI Autoroutes also develop risk prevention policies for other companies involved in operating their infrastructure. Lastly, VINCI companies establish partnerships with leading national health and safety organisations (e.g. OPPBTP in France) and actively contribute to adapting these policies to their respective core business and industry, including the French National Federation of Public Works (FNTP) and the Association of French Motorway Companies (ASFA).

Group performance in terms of health and safety

- Lost-time workplace accident frequency rate, worldwide:
 - VINCI employees (*): 5.90 in 2019 (6.10 in 2018 and 7.51 in 2014)
 - Temporary staff: 16.24 in 2019 (15.03 in 2018 and 23.02 in 2014)
- Lost-time workplace accident severity rate (VINCI employees)(*): 0.38 in 2019 (0.42 in 2018 and 0.49 in 2014)
- Percentage of Group companies with no lost-time workplace accidents in 2019: 72% (72% in 2018 and 69% in 2014)
- Number of training hours in health and safety: 1,595,107 in 2019, 36% of training hours (1,480,115 and 39% respectively in 2018)

Lost-time workplace accident frequency rate = (number of lost-time workplace accidents × 1,000,000)/number of hours worked. Lost-time workplace accident severity rate = (number of days lost due to workplace accidents × 1,000)/number of hours worked. (*) These indicators were verified with a reasonable level of assurance.

1.2.2 Health and safety of VINCI employees

The main goal of the Group's health and safety policy is to anticipate and prevent risks to the health and safety of VINCI employees. Training, awareness and employee support campaigns are among the various measures taken to promote health and safety.

The Group's approach to health and safety policy also consists in ensuring the quality of hygiene, health, safety and quality of life in the workplace, and ensuring the redeployment of employees who have suffered a workplace accident or illness. For example, VINCI established Trajeo'h in 2008. This organisation aims to better integrate people with disabilities into the company and facilitate the redeployment of incapacitated staff as well as the recruitment of workers with disabilities.

With respect to occupational health actions, the Group's initiatives, campaigns and reports focus mainly on substance abuse, workstation ergonomics and musculoskeletal disorders. A number of measures have been taken to upgrade equipment and tools and to implement flexible work arrangements, especially at worksites, to reduce workers' exposure to risks of musculoskeletal disorders. Health studies are conducted at Eurovia when new chemicals are introduced. Managers at VINCI Energies are educated about psychosocial risks. The latest technological enhancements are surveyed, and numerous innovations are being developed to reduce arduous work and physical efforts for employees: exoskeletons at Eurovia and VINCI Construction, machines for laying and removing traffic cones at VINCI Autoroutes, and baggage handling equipment at VINCI Airports.

Lost-time workplace accident frequency of temporary staff worldwide and by business line, with change $^{(*)}$

	2019	2018	2019/2018 change
Concessions	20.44	29.68	-31.1%
Contracting	16.13	14.81	+8.9%
Total	16.24	15.03	+8.1%

^(*) Temporary staff lost-time workplace accident frequency rate = (number of lost-time workplace accidents involving temporary staff × 1,000,000)/number of hours worked by temporary staff.

1.2.4 Health and safety of subcontractors

Subcontracting accounted for €9.1 billion in 2019, around 19% of Group revenue. In VINCI's business activities, subcontracting is multifaceted and practised at different levels, and some VINCI companies also act as subcontractors. Under such complex circumstances, many VINCI companies have signed agreements with their subcontractors, including a specific evaluation of their performance with regard to the health and safety plan. VINCI's Subcontractor Relations Guidelines underscore the Group's determination to ensure that the employees of its partner companies work under the same safety conditions as those of its own staff. The guidelines are primarily disseminated by the regional Pivot Clubs where the regional managers of the Group's businesses meet regularly and exchange ideas. In fact, some divisions have introduced policies limiting levels of subcontractors. Other actions taken by VINCI to enhance the health and safety performance of its subcontractors are presented in section 4, "Duty of vigilance plan", page 237.

1.2.5 Security of personnel

Given the large number of countries where the Group operates, some businesses may be affected by various forms of social or political unrest (acts of terrorism, armed conflicts, riots, strikes, etc.), by malicious acts and petty offences (worksite vandalism, theft), or even by serious crimes (assault, kidnapping). The local geopolitical and social context as well as the local security conditions can change rapidly and unexpectedly. This is one of the main factors causing security conditions to worsen for the Group's employees and subcontractors.

The Group's Security Department is responsible for assessing, preventing and supporting the management of these risks by recommending necessary measures, including:

- ongoing monitoring of the geopolitical, social and security context, security risk mapping of all countries worldwide, and communication of information to company and project management staff;
- security risk assessment from the start of the bidding process;
- specific recommendations for the protection of individuals and property (hosting, accommodation and transportation conditions adapted to the local context, site access protection, etc.);
- security training and information programmes;
- awareness programmes for travelling and expatriate employees;
- monitoring tools for travelling and expatriate employees;
- audits and special protection plans based on the local context;
- application of crisis management measures;
- discussions with customers on the conditions of partial or total discontinuation of activities.

1.3 Employability and skills development

1.3.1 General employability and skills development policy

Coordinating a decentralised group efficiently requires managers with an entrepreneurial mindset: managers who are independent and accountable, who can respond directly to customer needs at the local level, and who can make a wide range of decisions. Group employees are also encouraged to take initiative beyond their purely technical and operational expertise, to help the organisation move forward. Sustainable employability and employee upskilling represent key drivers to help VINCI prepare for the future and meet the many challenges that lie ahead. In addition to those involving the digital transformation and its impact on the ways the Group's businesses are carried out, the challenges faced specifically by managers include addressing international business expansion and the expectations of new generations (being useful in an organisation that promotes the importance of the freedom to act, diversity, ethics).

To enhance its visibility for new talent and to boost the loyalty of its employees, VINCI launched a Group employer brand campaign in 2018, working with the business lines. This campaign is designed to reinforce actions taken in the Group's countries of operation. Through the promise of this campaign, "You will enjoy working with us", VINCI boldly expresses the advantages of its management model and its values. The campaign aims to meet the following objectives:

- prepare for the long term with its future employees by enhancing its appeal and image in the eyes of younger generations, particularly engineering and business school students in France and around the world;
- foster employee loyalty, especially that of recent hires, by reminding them of the multiple career prospects and opportunities to express their strengths above and beyond their current position and company division.

The use of employee surveys and discussion workshops is expanding in order to measure employees' knowledge about safety and improve the policies and actions implemented. In 2019, Eurovia conducted a worldwide survey, enabling more than 30,000 employees to express their views on the extent to which a safety culture has been adopted at their divisions and to discuss these issues with their managers.

Lastly, online tools have been developed to improve the communication of information (reporting risk situations, near misses and accidents, e.g. at VINCI Energies with the Safety Up application) and numerous e-learning modules are available for the continuous training of employees.

These large-scale efforts have paid off, as safety performance indicators have improved significantly.

Frequency and severity rates of lost-time workplace accidents by business line, with change

	Frequen	cy rate (*)	Severity	/ rate (**)
	2019	2018	2019	2018
Concessions	7.45	11.31	0.37	0.55
VINCI Autoroutes	4.26	4.45	0.61	0.66
VINCI Airports	8.35	14.61	0.31	0.57
Other concessions	9.42	15.79	0.14	0.15
Contracting	5.73	5.75	0.39	0.41
VINCI Energies	4.42	4.79	0.28	0.29
Eurovia	7.50	7.15	0.58	0.59
VINCI Construction	6.04	5.92	0.39	0.44
Group	5.90	6.10	0.38	0.42

^(*) Lost-time workplace accident frequency rate = (number of lost-time workplace accidents × 1,000,000)/number of hours worked.
(**) Lost-time workplace accident severity rate = (number of days lost due to workplace accidents × 1,000)/number of hours worked

In 2019, occupational illnesses recognised in the Group were responsible for 63,245 days lost out of a total of 52 million days worked.

Number of days lost through recognised occupational illnesses and the severity and frequency rates, with change

		Group			Of which France			
	2019	2018	2019/2018 change	2018	2018	2019/2018 change		
Days lost through recognised occupational illness	63,245	62,149	+1.8%	62,853	61,789	+1.7%		
Recognised occupational illness frequency rate (*)	0.81	0.80	+1.3%	1.97	1.87	+5.3%		
Recognised occupational illness severity rate (**)	0.16	0.17	-5.9%	0.41	0.42	-2.4%		

^(*) Occupational illness frequency rate = (number of recognised occupational illnesses × 1,000,000)/hours worked.

(**) Occupational illness severity rate = (number of days lost through occupational illness × 1,000)/hours worked.

1.2.3 Health and safety of temporary staff

Under the terms of the Group's framework agreement in France with its partners, temporary employment agencies are required to play their part in meeting the aims of the Group's health and safety policy, and in particular its zero accidents objective.

The most recent list of approved temporary employment agencies (TEAs) in France came into effect on 1 January 2016, with a four-year validity period. These firms are listed in the Group's framework agreement primarily based on occupational health and safety criteria. The contracts with listed TEAs were renewed in 2019. During the negotiations, all companies were asked to complete an ethics and vigilance questionnaire including a section on human rights. An improvement plan on service quality and safety was tailored to each TEA and added to the negotiation process. This enhanced improvement plan was drawn up based on past results. It contains specific additional measures to improve the safety of temporary staff and indicators to monitor safety performance. For example, these measures may include surveys of temporary staff; feedback reports on prevention, awareness and training actions led by the company; or improved records of staff safety documents (Carte BTP - a professional identification card for construction site workers, Pasi - a safety passport for temporary workers, etc.). Based on the outcome of these negotiations, the framework agreements with these companies will be renewed for three years.

The gap between the workplace accident frequency rates of VINCI employees and temporary staff reflects differences in the jobs performed, in safety awareness, and in technical know-how and experience. Reports on workplace accidents involving temporary staff enable VINCI companies to take concrete action to prevent them from recurring, such as the safety passport for temporary workers developed by VINCI Construction. The frequency rate for temporary staff workplace accidents reached 16.24 in 2019. The use of temporary staff increased in line with the Group's workforce. Worldwide, the number of temporary staff rose from 27,561 in 2018 to 28,471 in 2019 (full-time equivalent).

VINCI is ranked in the **Top 10** most attractive employers and is No. 1

(*) 2019 Universum survey of engineering students in France.

in the construction industry (*)

Following on from this campaign, VINCI proactively develops its ties with higher education institutions on social media and in job forums to build meaningful relationships with future talent. For example, the VINCI Camp events were designed in partnership with the Foundation of the National Institutes of Applied Sciences (Insa) for students from the six Insa engineering schools. The talks and workshops at these events presented the "VINCI Way" and encouraged these future engineers to embrace a humanistic approach towards a more sustainable world. Alonqside these efforts, VINCI uses innovative internal tools to facilitate recruitment processes, such as Trust[in], an online recruitment agency that creates pools of potential recruits through professional social media platforms, and Agiléo, which promotes the recruitment, redeployment or mobility of the Group's employees with disabilities.

The Group also focuses on the successful and efficient integration of the nearly 34,000 new hires every year. New onboarding programmes have thus been introduced, such as the "Get on Board" module open to all employees and available via the Group's online learning platform. These programmes are strengthened by induction events organised by the business lines as well as Group-wide "Welcome to VINCI" orientation days.

To support its growth, in particular outside France, since 2010 the Group has applied employee development plans adapted to its forwardlooking management of jobs and skills. VINCI believes in the importance of developing employee skills and creating opportunities, thus motivating employees to be proactive in shaping their career, while taking into account the Group's decentralised structure. The VINCI Jobs tool was designed to optimise the job application experience with VINCI companies, aggregating all the Group's systems and managing the hiring and internal mobility process end to end. Salary reviews, annual appraisals and people reviews are now also used across the Group, mainly via the VINCI Talent Information System (Vitalis).

On top of the many career opportunities within the Group, Leonard, VINCI's forward-thinking entrepreneurial innovation platform, offers an intrapreneur programme that supports Group employees in developing new products or services. Launched in 2017, Leonard has already guided four groups of intrapreneurs through the programme's incubation and acceleration phases. Eight new companies and innovative projects have been created, including the Trust[in] agency.

As part of the digitisation and transformation of its businesses, VINCI focuses on skills transfers and steers the future development of its businesses by engineering sustainable career paths. Each business line is associated with technical, relational and organisational expertise. A matching process aligns employee abilities and skills with business activities to offer career opportunities adapted to the Group's employees by taking advantage of their specific skills. This project is in an experimental phase within three VINCI Autoroutes scopes.

All of VINCI's initiatives taken to support its present and future employees are in keeping with the overarching objective of maintaining social cohesion within the regions where the Group operates. These initiatives are strengthened by the professional integration programmes implemented within and outside the Group (see paragraph 2.1.2, "Measures put in place by VINCI to maintain social cohesion in communities and develop employment", page 210).

Group performance in terms of employability and skills development

- VINCI is ranked among the Top 25 most attractive employers in France (LinkedIn France 2019 Top Companies ranking)
- Percentage of permanent jobs (*) in new hires: 54.6% in 2019 (53.6% in 2018)

(*) Permanent job contracts, site contracts.

1.3.2 Skills development and training

The development and continuous enhancement of skills increase the value of human resources across the Group and drive performance, while promoting individuals' employability and career development. Training and skills acquisition are essential ways to quarantee that the fundamentals of the Group's culture are shared and that knowledge and expertise are passed on between employees, at all VINCI companies and in all countries where the Group operates. These programmes help VINCI meet its customers' needs, be the best partner to them, and maintain a high level of operational performance among staff. They are also designed to promote the integration and career advancement of every employee by offering an individualised approach, with technical training and meetings devoted to personal and professional development.

Training is being revolutionised by the digital transformation and fast-changing ways of carrying out business activities. Through its flexibility, digital technology is powering new ways of learning and updating skills. VINCI works to prevent a digital divide by making these new technologies widely available to its employees.

Skills development is driven by the need of each business activity to improve productivity and adapt to the transformation of techniques and technologies. With the trend towards ever more complex and comprehensive engineering structures, new training needs arise as business lines work more closely together and content is adapted to the Group's international growth.

The "learning company" of today's digital age is a concept that VINCI hopes to cultivate, essentially in giving managers an active role in developing the skills of their teams.

of training on average per employee

Group performance in terms of training

- 4,422,865 hours of training provided in 2019 (3,816,306 in 2018)
- Average number of training hours per employee: 20 (including 23 for managers; 20 for non-managers)
- 160,536 employees trained, i.e. 73% of the workforce in 2019 (69% in 2018)
- Percentage of training courses given at internal training centres (*): 25% (23% in 2018)

(*) VINCI Academy, Parcours ASF, Parcours Cofiroute, Parcours Escota, VINCI Airports Academy, VINCI Energies Academy, Eurovia Academy, Cesame, Centre Eugène-Freyssinet, Centre Sogea-Satom, VINCI Construction Grands Projets.

Breakdown of training hours by subject, with change

				2019				2018	2019/2018
	Managers	Non- managers	Men	Women	Total	%	Of which France	Total	Change
Admin and support	139,890	194,326	217,898	116,318	334,216	7.6	186,228	308,390	+8.4%
Diversity	4,720	25,946	23,557	7,109	30,666	0.7	6,315	23,014	+33.2%
Environment	10,195	31,860	30,995	11,060	42,055	1.0	17,796	36,967	+13.8%
Ethics and vigilance	21,583	26,114	34,487	13,210	47,697	1.1	19,138	12,312	0.0%
Health and safety	209,692	1,385,415	1,463,473	131,634	1,595,107	36.1	806,756	1,480,115	+7.8%
Languages	67,406	80,136	96,521	51,021	147,542	3.3	45,106	140,216	+5.2%
Management	178,423	133,713	255,579	56,557	312,136	7.1	178,044	271,538	+15.0%
Technical	313,174	1,519,041	1,592,620	239,595	1,832,215	41.4	780,705	1,474,475	+24.3%
Other	27,929	53,302	57,141	24,090	81,231	1.8	40,708	69,279	+17.3%
Total	973,012	3,449,853	3,772,271	650,594	4,422,865	100.0	2,080,796	3,816,306	+15.9%
Hours of training per employee	23	20	20	19	20	-	21	19	+5.3%

Data checked by the Statutory Auditors, see page 266 of the 2019 Annual Report.

VINCI Academy actions

VINCI Academy designs and rolls out cross-business training courses for VINCI executives and high-potential managers, and for the Group's central functions, in association with leading institutions (London Business School, HEC, Sciences Po, etc.) and with the business lines, which are responsible for developing their own training courses, through dedicated structures, to meet their specific business needs. Exchanges between VINCI Academy and the business lines, as well as actions to ensure the overall consistency of the programme within the Group, are organised by the six business line ambassadors or in the context of training Pivot Club meetings. At Group level, VINCI Academy targets operational staff, executives and future executives, as well as staff within central functions (HR, finance, legal). Its training actions reinforce those led directly by business line academies. In all, over 4,000,000 hours of training were provided across the Group in 2019 for 160,536 employees (73% of the workforce).

Up!, VINCI's online learning solution launched in 2016, is designed to serve as a comprehensive knowledge base for disseminating the Group's approaches and expertise. The tool includes required modules for certain staff members, such as anti-corruption training for all individuals who have signed the Code of Ethics and Conduct, and courses to help employees take a more proactive role in their training. Its rollout continued at business units throughout 2019, featuring an e-learning course on human rights and another on inclusion and diversity. A classroom training pilot programme on diversity issues, which aims to cultivate a more inclusive management approach within the Group, is being tested.

Thanks to digital technology, it is now possible to provide distance learning that can reach as far as worksites on the other side of the world if necessary. For example, an SPOC, or small private online course, on temporary structures took place one hour a week for five weeks, producing highly conclusive results. A strong community of employees around the world was created, giving rise to a discussion space for the 180 trainees, who all received a training certificate at the end of the course.

Training actions implemented by business lines

Business lines also initiate training actions and develop innovative learning tools.

For example, VINCI Autoroutes launched a digital learning development programme to expand its range of training courses. This programme meets the goal of providing its companies' employees with ongoing training opportunities through new self-study formats, which they can use outside the workplace. Training content covers a wide range of topics designed for employees from all business lines and departments, including construction, human resources, prevention, viability, IT, tolls, services, legal issues, sustainable development, customer management, and traffic information and safety.

The VINCI Energies Academy is also upgrading its learning methods with digital tools and modular workspaces to promote interactivity. collaboration and creativity. Based on sharing and interaction, this training approach emphasises collective learning capacity while enabling trainees to take a proactive role in the learning process. One of VINCI Energies's key training courses was redesigned and now offers a new format in which participants, organised into workshops, can share their work in real time using interactive screens.

VINCI Airports has created an advanced management training course in the form of a business game, which aims to improve the understanding of VINCI's best practices in financial management, cost management and investments, using performance indicators adapted to the business line. Participants work in teams to manage the operations of an airport over five years and, through this new simulation learning format, develop their ability to learn collectively based on real-life situations.

Innovation is a key focus of the training programme at Eurovia, which has launched several training courses on this topic in France since 2018 to support the company's development plan. The programme features a seminar for division managers called "The Keys to Innovation", to help them explore innovation and the startup ecosystem while introducing the fundamentals of design thinking.

VINCI Construction is rolling out its "Ville sous la ville" (City under the City) training course for the Grand Paris projects. The course aims to create, strengthen and foster a culture of underground works and foundations. It is mainly offered to civil works engineers, methods engineers and design/civil works coordinators. More than 200 employees have already taken the course. Its four independent modules, each lasting two to three days, are fully adapted to the Grand Paris programme. Participants can therefore more easily understand the various activities and their interactions in production.

VINCI is also developing other innovative training methods to offer employees learning formats that are better adapted to their needs. Virtual classroom training is being developed and is planned for the medium term, in particular at VINCI Energies. For example, the Group is experimenting with virtual and augmented reality, the structured and didactic form of work-based training known in France as formation en situation de travail (Fest), robotics and artificial intelligence at some business lines before rolling them out more widely. Virtual classroom training is being developed and is planned for the medium term, in particular at VINCI Energies. This format would bring back the "physical" presence of the instructor while saving time and meeting remote learning needs.

1.3.3 Remuneration and sharing the benefits of the Group's performance

The Group's commitment to sharing the benefits of its performance with employees is another important way that it fosters sustainable employability. A tenet of the VINCI Manifesto, this approach is a key driver in attracting talent and building employee loyalty.

VINCI's remuneration policy gives considerable autonomy to Group companies while establishing common principles for sharing the benefits of company growth and rewarding individual performance. Focused in particular on developing employee share ownership through collective share ownership and long-term incentive plans, VINCI's approach encompasses both individual and collective remuneration (profit-sharing, incentive plans, insurance and retirement plans, adapted to the conditions and legislation in each country where the Group operates).

Remuneration

All employees, regardless of position, are rewarded in accordance with their responsibilities and performance. The Group's main human resources directors meet on a monthly basis to share best practices and set forth quidelines relating to remuneration and employer social contributions, which vary depending on the labour laws of each country and are different for the manager and non-manager categories. Gender and occupational pay gaps are analysed each year at Group level and at business lines to ensure equal pay for the same job and the same potential for development (see paragraph 1.5.2, "Measures to promote gender equality", page 205).

Through profit-sharing, incentive plans and employer contributions, the Group paid out about

€460 million to its employees

Group performance in terms of remuneration

- Payroll expenses: €10,775 million in 2019, i.e. 23% of revenue (€9,987 million, i.e. 23% of revenue in 2018)
- Average annual salary within the Group: €38k in 2019 (€37k in 2018)
- Average annual salary of non-managers within the Group: €31k (€30k in 2018)
- Average annual salary of managers within the Group: €63k (€65k in 2018)

Remuneration and employer social contributions worldwide

	То	tal	Mana	agers	Non-m	Non-managers		
(in € thousands)	2019	2018	2019	2018	2019	2018		
Average VINCI salary	38	37	63	65	31	30		
Men	38	37	66	68	32	30		
Women	34	33	51	50	28	27		
Employer social contributions	31%	33%	36%	38%	28%	31%		

Long-term incentive plans

For several years, VINCI has set up a long-term incentive plan, in the form of performance shares that vest after three years provided the beneficiary has remained with the Group. Every year, nearly 10% of the Group's managers benefit from the plan (see the Report on corporate governance, paragraph 5.3.1, "Existing performance share plans", page 172). The performance conditions for these plans include the evaluation of VINCI's performance compared with that of the CAC 40 as well as internal performance criteria. Whether these conditions have been met is determined at the Shareholders' General Meeting. An environmental criterion was added to these conditions in 2019 based on the Group's CDP Carbon score. This plan thus contributed to attracting and enhancing the loyalty of nearly 4,200 of the Group's key or high-potential managers, by involving them directly in the Group's performance and strategy.

Employee share ownership

Developing employee share ownership is one of VINCI's main commitments. In 1995, the Group set up an ambitious employee savings plans in France and abroad, the Castor Fund. From its inception, these plans have included an advantageous employer contribution policy designed to encourage savings by employees within the lowest pay bracket, thus enabling a broad range of employees to share in VINCI's performance. This attractive system put in place by the Group applies an employer contribution rate that varies depending on the country.

For example in France the maximum annual employer contribution breaks down as follows:

- -200% up to €500;
- -100% from €501 to €2.000:
- -50% from €1,001 to €4,000.

The employer's maximum annual contribution per employee thus amounts to €3,500. The total employer's contribution for the Castor Fund was nearly €237 million for France in 2019.

In December 2019, VINCI paid out an exceptional flat employer contribution of €400 to each Group employee in France, totalling €40 million. As a result of this operation, all Group employees in France are shareholders.

Initially implemented for French employees, the employee savings plan was rolled out internationally beginning in 2012 for employees of subsidiaries in which VINCI owns more than a 50% stake. Adjustments were added to comply with regulations in each country concerned, while guaranteeing equal access to the plan, irrespective of the employee's professional situation. The plan was extended to four additional countries in 2019 (making a total of 35 countries), and five new countries will be covered in 2020.

The Castor Fund achieves multiple goals. Apart from being a remuneration tool, it is a means of sharing the benefits of growth, while helping to attract talent, enhance the Group's appeal and foster employee loyalty. It is also a vector of VINCI's corporate culture worldwide, meeting with success both in France and internationally.

of Group employees are covered by the Castor Fund programme (88% in 2018)

The importance that the Group attaches to employee share ownership is also reflected in the number and frequency of share offerings. Across the world, 90% of all employees are given the opportunity to subscribe to an employee share ownership programme at least once a year, whereas such programmes are rarely offered by other companies on an annual basis.

Profit-sharing, incentive plans

In addition to this employee share ownership programme, other employee benefits are offered, mainly in France, such as profit-sharing and incentive plans, and a supplementary pension plan. At the end of 2019, 96.5% of employees in France benefited from incentive plans and/or profit-sharing agreements (97% in 2018). VINCI distributed higher amounts in France under profit-sharing and incentive plans than in the previous year (a total of €169.7 million in 2019, up from €163.4 million shared from the Group's growth in 2018). This means that a large majority of Group employees in France benefit directly from the performance of their local employer.

Retirement plans

In France, the Group's collective retirement savings plan, Perco Archimède, enhances the range of savings plans offered by VINCI. This plan was established to allow employees to offset reduced income from mandatory pension plans and to save for retirement under more attractive terms than they could obtain individually, with employer matching contributions of 100% for up to €400. They are able to receive a lump-sum payment or annuity upon retirement, can choose to manage their investment themselves or opt for guided management and may select from a wide range of investment vehicles in accordance with their particular savings or investment profile. Employer contributions to the Group's collective retirement savings plan totalled €5.4 million in 2019 for France, up 14% from the €4.8 million contributed in 2018.

In 2013, VINCI established a fixed-contribution supplementary pension plan in France for executives and other management-level personnel. Called Reverso, this plan complements Perco Archimède. Financed 50/50 by the employee and the company, it is available to all Group subsidiaries in France and combines the technical, financial, social and tax advantages of a company pension plan with those of an individual plan. At end-2019, Reverso covered 688 companies that requested to sign up to the plan, amounting to 27,500 employee subscribers. VINCI's contribution to the plan totalled €10 million in 2019.

Group performance in terms of sharing the benefits of performance

- Coverage of the Castor Fund worldwide: 35 countries in 2019^(*) (31 countries in 2018)
- Total employer's contribution for the Castor Fund in France: €237 million in 2019 (over €185 million in 2018)
- Employer's contribution for the Castor Fund worldwide: €59 million
- Number of employees worldwide having invested in the company: 125,000 employees in 2019 (105,000 in 2018)
- Percentage of employee share ownership in VINCI's share capital: 8.8% in 2019 (9.1% in 2018), making employees the largest shareholder in the
- Total amount paid by the Group to employee share ownership, incentive, profit-sharing and collective retirement plans in France: €470 million in 2019 (€413 million in 2018)

(*) Australia, Austria, Bahrain, Belgium, Brazil, Cambodia, Canada, Chile, Czech Republic, Dominican Republic, Finland, Germany, Greece, Hong Kong, Indonesia, Italy, Luxembourg, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Norway, Peru, Poland, Portugal, Romania, Singapore, Slovakia, Spain, Sweden, Switzerland, United Arab Emirates, United Kingdom, United States.

Relations between management and labour

1.4.1 General policy regarding dialogue between management and labour

The Group has always operated using a decentralised organisational and management approach, including for labour relations. One of VINCI's priorities in its dialogue between management and labour is to develop close relations that are relevant and adapted to each business, giving labour representatives a real role to play at each business unit. In order to encourage dialogue that is sensitive to the realities of the economic and labour context in which each business line operates, labour representatives and the Group have opted for the implementation of employee representative bodies at business lines. This employee representation system is well suited to VINCI's decentralised organisation, and is set out in the agreement to promote dialogue between management and labour within the Group. Three of these business line bodies had been set up by the end of 2019.

Although management and labour actively engage in dialogue locally at VINCI subsidiaries, dialogue also takes place at Group level through two bodies, the Group Works Council and the European Works Council:

- The Group Works Council, which covers French companies (45% of the Group's workforce), is comprised of 30 representatives, 17 alternate representatives and 5 trade union representatives, all from different business lines. Two plenary meetings are held each year, and the officers meet every two months. These meetings offer the opportunity to engage in transparent dialogue and discuss many issues, such as workforce-related information, the Group's financial position, its future outlook as well as Group events and news. Trade unions are provided with financial resources to fulfil the duties assigned to representatives from the business units. Financial assistance is also paid every year to the trade unions represented on the Group Works Council. This amount was revised upwards to €230,000 in 2019, from €220,000 in 2018, a 5% increase.
- The European Works Council takes up discussions at the European level (*) that originally initiated within the various local or national organisations. The council's mandate, renewed in 2018 under an agreement signed by 15 out of 16 organisations, makes provisions for 29 full members and 29 alternate members from 15 countries in which VINCI operates. The European Works Council, which meets at least once a year, has the unique role of information and dialogue with employee representatives at the European level. Its primary purpose is to improve the rights of workers to information and consultation. It is an essential element in the policy to promote dialogue between management and labour across all the Group's European subsidiaries. To ensure that European Works Council members are properly informed and trained on corporate social responsibility (CSR) issues and to involve them in implementing CSR measures taken by the Group, a CSR commission was created in 2018. This commission met four times in 2018 and twice in 2019 to introduce, explore and debate social and environmental issues for the Group.

The Group's commitment to dialogue between management and labour is enshrined in its Manifesto. VINCI's general policy reflects its fundamental principles:

- recognising the role played by trade unions in the Group and the right of employees to belong to a union;
- achieving a constant balance between union involvement and close links with professional activities;
- facilitating communication and meetings between trade union representatives and employee representative bodies;
- ensuring that employee and trade union representatives are properly informed and trained by involving them in the Group's major initiatives (e.g. in the areas of health, safety, sustainable development, gender equality, and employing people with disabilities).

On 7 February 2019, the agreement to promote dialogue between management and labour, renegotiated by the Group Works Council, brought further support for these principles by creating a basic set of actions designed to support and encourage this dialogue within VINCI companies in France. The main changes involve the recommendations set forth by labour representatives and by the Group following the effective application of labour legislation. For instance, companies and organisations with over 50 employees are recommended to set up a health, safety, and working conditions committee (CSSCT), while the current legal minimum is set at 300 employees. Furthermore, companies of any size are recommended to hold a regular economic and social committee meeting every month, and to check the organisation's progress on prevention, health and safety indicators at every meeting.

In 2019, employee absences due to strikes totalled 7.517 days, of which 4.857 in France, out of a total of 52 million days worked in the year (compared with 5,161 days and 2,682 days respectively, out of 48 million days worked in 2018). Salary demands, mainly stemming from national actions, were the main cause of the strikes.

1.4.2 Measures taken to promote dialogue between management and labour, and their results

Social innovation at VINCI: inventing new forms of dialogue and exchange

As a driver of growth and progress, social innovation builds new forms of dialogue that promote discussion and transparency. The Group is setting up an online discussion platform, based on the one currently reserved for the members of the European Works Council, which will be extended for wider use. This tool will facilitate exchanges between council members as well as the sharing of information about their work with the employees of VINCI's European subsidiaries. A design thinking workshop between council members was held in 2019 to discuss ways to improve the platform and raise the council's visibility among VINCI employees.

Three-day training sessions are available every year for the European Works Council. Training topics in 2019 included collective intelligence, the council's role and communication, different forms of dialogue between management and labour, and cultural differences. The Group also tested a "hybrid" meeting format to discuss the VINCI Manifesto. The 2019 meeting focused on the duty of vigilance and its implementation within the Group.

In France, the Group Works Council set up a special consultation committee in 2019 to discuss VINCI's upcoming move to its new headquarters, called l'archipel. Made up of employee representatives from business units, the committee deals with issues affecting all entities concerned by the move. Several committee members participated in a design thinking workshop to plan the media centre at l'archipel.

Collective agreements signed in 2019

The collective agreements negotiated and signed by VINCI companies are a concrete example of the Group's decentralised approach to human resources management, which takes account of the realities on the ground and aims to improve working conditions, health and safety, and the organisation of working hours. In 2019, more than 36% of the agreements related to employee remuneration. Among the other collective agreements, many involved flexible work arrangements, with 118 agreements signed in 2019. The number of agreements relating to union rights rose from 93 in 2018 to 223 in 2019.

In countries that have not ratified the International Labour Organisation's conventions on trade union rights, VINCI companies are working to give employees the means of expressing themselves, for example in Qatar (see paragraph 4.4, "Duty of vigilance with regard to human rights", page 245).

collective agreements signed

Group performance in terms of relations between management and labour

- Number of employees worldwide serving as employee representatives: 9,023 of which 84% in France (versus 8,274 and 84% respectively in 2018)
- Percentage of collective agreements outside France in 2019: 12% (19% in 2018)

1.5 Inclusion and diversity

1.5.1 General policy to promote inclusion and diversity

Making uniqueness and differences added values at VINCI

A key point in the VINCI Manifesto, the Group's corporate culture relating to diversity is derived from a policy of broad inclusion. As such, preventing any form of discrimination and promoting equality are its top two priorities. As part of this commitment, VINCI endeavours to increase the proportion of women in the Group and improve access to career opportunities for people of all social, ethnic, educational and geographical backgrounds. The Group firmly believes in promoting the diversity of profiles and ensuring that all staff can follow an adapted career path.

Creating a strong diversity culture

Several governing bodies have been formed to build a sustainable culture of diversity throughout the Group. VINCI's Diversity Department was set up in 2004 and tasked with two main responsibilities. In collaboration with the human resources departments at each business line, the first was to design integrated tools that could be used by all subsidiaries, and the second was to raise the awareness of all business lines about the shared values of inclusion and respect for differences. The Inclusion and Diversity Department has also been working with the regional human resources Pivot Clubs since 2008 to structure the means of action implemented and share best practices identified within the Group.

In 2011, a network of 300 inclusion and diversity coordinators was created to support the Inclusion and Diversity Department in its endeavours and ensure that its strategy is applied locally. Since then, it has led awareness initiatives and encouraged the development of effective tools to support inclusion within each business line and region. The coordinators are trained on specific issues and regularly pool know-how during inclusion and diversity days or via their collaborative platform. Together, they aim to develop policies and initiatives that can be rolled out across the Group. Two coordinator meetings were held in 2019. Overseeing the entire network, the Inclusion and Diversity Department helps it structure its influence and gain recognition for its contribution to inclusion within the Group. Outside experts, influential figures and internal initiators of best practices are invited to speak at network meetings. Coordinators identify and define inclusion issues within their scope. Solutions are then planned, and their application supported by the network. For example, in 2019 the management of Grenoble Alpes Isère Airport (VINCI Airports) received a white paper on diversity prepared by the network of coordinators. The coordinators studied the airport's diversity actions during an on-site learning expedition and wrote the white paper to formulate additional proposals.

To encourage inclusive management at all levels of the organisation, the Group continues to identify discrimination risks through two key initiatives: the Diversity label and the "VINCI fights discrimination - what about you?" digital platform.

The Diversity label is awarded by an outside organisation (Afnor Certification, in France). The certification process examines action plans focused on preventing discrimination, promoting inclusion and diversity, and respecting equality. This valuable tool enables the Group to identify risks of discrimination and promote its best practices in human resources management. At end-2019, 13 companies were certified, representing 9.3% of the workforce in France. In the United Kingdom, two companies, i.e. 52.6% of the workforce, received awards for their diversity performance from the National Centre for Diversity. The Group is currently working to roll out the Diversity label to other countries

The self-assessment tool "VINCI fights discrimination - what about you?" is an application developed by VINCI's Human Resources Department to measure how well a company, business line or department fares when tested for discrimination. The platform is divided into nine modules covering nine facets of professional life: recruitment, induction and integration, managing jobs and skills, training, remuneration, departures and sanctions, dialogue between management and labour, quality of life in the workplace, and diversity policy. These facets are broken down into 150 situations in which discrimination could potentially arise. All Group employees can access the platform via a dedicated website and answer the self-assessment questionnaire to determine the likelihood of each situation. The results are used to measure the entity's resilience to discrimination and suggest any priority actions that need to be implemented. The French version has been available since 2016, and a universal version for all countries is being developed with the support of the regional human resources Pivot Clubs and the Inclusion and Diversity Department.

Diversity is an integral part of dialogue between management and labour. Seventy-nine collective agreements (up 21.5%) were signed on inclusion and diversity in 2019.

Group performance in terms of inclusion and of diversity

- Percentage of people who completed the self-assessment on the "VINCI fights discrimination what about you?" platform in 2019: 69% (74.8% in 2018 and 60.7% in 2017)
- Percentage of logins to the "Diversity policy advanced" module out of all modules on the platform in 2019: 3.6% (3.5% in 2018 and 2.8% in 2017)

1.5.2 Measures to promote gender equality

Gender equality is one of the major components of the Group's inclusion and diversity policy. This policy permeates every aspect of an employee's career path, aiming to promote equality in employment, training, career development and pay increases. The Group has set two key targets for 2021 to drive this policy:

- Women holding at least 25% of management positions
- Double the number of women members on management and executive committees of the Group's business lines and divisions

This issue is endorsed at the highest level of the Group's organisation and discussed regularly at Executive Committee meetings. A document listing measures to be taken to help more women move into higher management roles has been drawn up by the Executive Committee. This document is intended to establish the Group's course of action and provide business lines and subsidiaries with steps to follow. Several initiatives were identified:

- perform people reviews at each business line for women occupying managerial positions in operational as well as central functions;
- for each vacant managerial position, especially in operations, systematically include at least one female applicant in the shortlist of
- simultaneously stress efforts to recruit women, especially outside France, and step up their training in management to help them reach executive positions more quickly.

VINCI's seven companies with over 1,000 employees disclosed their gender equality index in March 2019, and its 81 companies with between 251 and 999 employees did so in September 2019. Their positive results reflect measures already taken by the Group, with room for improvement remaining for companies with the lowest scores. The Group is continuing its efforts and plans to make further progress by gradually adapting the index outside France at all its companies operating internationally.

From 75 to 94/100

2018 Gender equality index France (Results for VINCI's businesses with more than 1,000 employees)

VINCL is also active in fighting stereotypes, for example through its campaign launched in 2018 in partnership with Elles Bougent. This non-profit organisation works to encourage women into the engineering professions. At 31 December 2019, 662 VINCI employees were registered to participate as company representatives in events for high school students to raise their awareness about working in technical fields.

Group performance in promoting gender equality

- Percentage of women managers in 2019: 20.3% (19.9% in 2018 and 19.3% in 2017)
- Percentage of women non-managers in 2019: 15% (14.4% in 2018 and 11% in 2017)
- Percentage of women managers on management and executive committees of the Group's business lines and divisions in 2019: 11.2% (8.6% in 2018)
- Percentage of women in the Group's total staff: 16% (15.4% in 2018 and 14.8% in 2017)

1.5.3 Measures to promote the employment and social integration of people with disabilities

VINCI's general accident prevention policy aims to ensure that everything possible is done to minimise workplace accidents and their consequences in terms of incapacity. Measures to promote the employment and social integration of people with disabilities have three main strands: the redeployment of incapacitated staff, the recruitment of people with disabilities, and the use of social enterprises (EA) and sheltered workshops (ESAT) that specifically employ people with disabilities.

This initiative is primarily driven by VINCI employees active in the Trajeo'h programme, a structure made up of eight organisations that cover all of metropolitan France. Programme members act as liaisons between people with disabilities, operational managers and human resources departments to facilitate the implementation of specific solutions adapted to each situation, such as adaptation of workstations, redeployment within the Group, career guidance or redeployment outside the Group. Yearly health committee meetings bring together representatives from human resources, occupational medicine and Trajeo'h to detect potential situations of disability as early as possible. Their role is to help incapacitated VINCI employees remain in employment and generally support Group companies in France in the area of disability. The eight organisations took on 829 of the requests received from VINCI employees in 2019, down slightly from 2018. However, redeployment within the Group was up 16%.

Group employees supported by Trajeo'h in France

Employees involved in the Trajeo'h organisations are provided with specific training on different types of disability to prepare them to better support people with disabilities: on-the-job impact of diabetes, cancer, multiple sclerosis, dyslexia, dyspraxia and dysphasia. The Group's Inclusion and Diversity Department plans regular coordination meetings for the eight organisations and oversees the entire Trajeo'h programme. VINCI is currently studying the prospect of expanding this programme internationally.

Group performance in promoting the integration of people with disabilities

- Percentage of managers with disabilities in 2019: 1.1% (1.1% in 2018 and 1.2% in 2017)
- Percentage of non-managers with disabilities in 2019: 2.0% (2.1% in 2018 and 2.2% in 2017)
- Number of employees with disabilities in 2019: 4,097 (3,982 in 2018 and 3,901 in 2017)
- Number of people supported by Trajeo'h: 829 (840 in 2018 and 744 in 2017)
- Number of people who remained in employment through Trajeo'h: 195 (215 in 2018 and 186 in 2017)

Additional detailed workforce-related information

1.6.1 Workforce

Workforce at 31 December 2019 by geographical area and by business line, with change

				201	9					2018	2019/2018
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.	Total	%	Total	Change
France	6,095	1,084	535	36,350	23,930	31,727	1,328	101,049	45.4%	98,928	+2%
United Kingdom	-	3,217	-	922	2,968	5,319	-	12,426	5.6%	9,091	+37%
Germany	-	-	29	11,699	3,770	327	9	15,834	7.1%	15,183	+4%
Benelux	-	-	-	5,878	543	201	4	6,626	3.0%	5,785	+15%
Central and Eastern Europe	-	2,162	44	3,421	5,247	3,977	-	14,851	6.7%	14,374	+3%
Rest of Europe	-	3,639	106	11,200	451	1,317	3	16,716	7.5%	15,788	+6%
Europe excl. France	-	9,018	179	33,120	12,979	11,141	16	66,453	29.9%	60,221	+10%
Americas	-	1,744	773	6,680	8,397	7,715	-	25,309	11.4%	23,258	+9%
Africa	-	-	-	2,305	-	14,218	-	16,523	7.4%	15,013	+10%
Rest of the world	-	1,821	93	3,805	-	7,344	-	13,063	5.9%	13,813	-5%
Total	6,095	13,667	1,580	82,260	45,306	72,145	1,344	222,397	100%	211,233	+5%

Workforce at 31 December 2019 by age and business line, with change

				20)19					2018	2019/2018
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.	Total	%	Total	Change
Under 25	111	1,248	182	9,301	4,139	6,685	158	21,824	10%	20,170	+8%
26-35	440	3,719	595	20,967	10,094	21,694	424	57,933	26%	54,858	+6%
36-50	2,516	5,758	621	30,601	17,014	28,074	506	85,090	38%	82,243	+3%
Over 50	3,028	2,942	182	21,391	14,059	15,692	256	57,550	26%	53,962	+7%
Total	6,095	13,667	1,580	82,260	45,306	72,145	1,344	222,397	100%	211,233	+5%

Workforce reduction and employment protection plans, redeployment efforts, rehiring and support measures

When the economic environment is challenging, and as VINCI's business activities cannot be relocated, senior management and human resources managers work together to ensure economic and social solidarity through job mobility and redeployment plans, which are facilitated by the Group's extensive presence. VINCI Insertion Emploi (ViE), the Group entity focused on social integration through work, leveraged its expertise in 2019 to support businesses that needed to reduce their workforce and help their employees develop a longterm career path. Also, when VINCI makes an acquisition, it strives to retain staff whenever possible, since they are the quardians of valuable skills and expertise, while benefiting from Group synergies to share resources and operate in networks. Some Group companies occasionally implement redundancy plans or redeploy employees. On the major sites, Group companies manage large-scale redundancy and staff redeployment moves. VINCI's Human Resources Department and local HR managers conduct monthly reviews of sites that are experiencing business or employment difficulties in and outside France, and define suitable employment policies with them.

1.6.2 Absenteeism

Employees were absent from work 3.7 million days out of 52 million calendar days in 2019. Absenteeism represented almost 7% of working days (8% in 2018). The percentage of non-occupational illnesses in absenteeism has been stable at about 60% for more than a decade (60.5% in 2019, 58% in 2018). The percentage of workplace accidents stood at 4% of total days of absenteeism (4.1% in 2018).

Days of absenteeism by cause and by business line, with change

				20)19					2018	2019/2018
(in number of calendar days)	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.	Total	%	Total	Change
Non-occupational illness	106,560	127,991	6,289	918,155	553,538	552,692	12,219	2,277,444	60.5%	2,128,404	+7.0%
Workplace accident	4,994	7,186	376	37,255	43,245	56,139	408	149,603	4.0%	150,840	-0.8%
Commuting accident	674	2,148	13	9,329	9,085	10,358	161	31,768	0.9%	29,928	+6.1%
Recognised occupational illness	1,133	288	-	13,449	22,503	25,872	-	63,245	1.7%	62,149	+1.8%
Maternity/paternity leave	3,930	39,097	4,920	133,276	64,702	96,107	7,443	349,475	9.3%	323,917	+7.9%
Short-term work	-	-	-	6,977	5,171	21,416	-	33,564	1.0%	38,805	-13.5%
Weather events	-	2	-	15,285	109,985	45,226	-	170,498	4.5%	247,530	-31.1%
Other cause	13,985	26,230	1,432	199,578	174,660	270,007	5,125	691,017	18.3%	703,309	-1.7%
Total	131,276	202,942	13,030	1,333,304	982,889	1,077,817	25,356	3,766,614	100.0%	3,684,882	+2.2%

1.6.3 Organisation of working hours

Organisation of working hours, with change

		2019	2018	2019/2018	
	Managers	Non-managers	Total	Total	Change
Total hours worked	71,084,392	317,950,292	389,034,684	359,680,812	8%
Of which overtime	454,344	23,172,184	23,626,528	19,721,927	20%
Number of part-time employees	1,314	6,117	7,431	6,530	14%

1.6.4 Training

Activity of internal training centres: number of training hours

Internal training centre	Number of classroom training hours in 2019	Number of classroom trainees in 2019	Number of e-learning training hours in 2019	Number of e-learning trainees in 2019	Total number of hours
VINCI Academy (*)	7,557	576	11,159	NS	18,716
Concessions	145,030	19,673	32,888	18,781	177,918
Parcours VINCI Autoroutes	142,444	19,378	11,453	12,488	153,897
VINCI Airports Academy	2,586	295	21,435	6,293	24,021
Contracting	54,006	31,239	28,026	904,666	-
VINCI Energies Academy	873,427	54,006	31,239	28,026	904,666
Eurovia Academy	117,000	4,470	3,275	NS	120,275
VINCI Construction	547,263	38,168	14,530	6,706	561,793
	1,026,014	74,255	75,286	46,807	1,101,300

^(*) VINCI Academy covers all VINCI Group business lines in France and abroad.

1.6.5 Mobility

Worldwide intragroup transfers

		2019							
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.	Total	Percentage of 2019 staff
Transfers within a business line	12	12	3	1,198	344	710	6	2,285	93%
Transfers to another business line	3	6	10	44	35	53	12	163	7%
Total	15	18	13	1,242	379	763	18	2,448	100%

1.6.6 Diversity

Women employees by business line, with change

	2019							2019/2018
	Number of women managers	As a% of managers in the workforce		As a% of non-managers in the workforce	Total women employees	As a% of the total workforce	Total	Change
Concessions	1,081	34.8%	6,591	36.1%	7,672	35.9%	6,379	+20%
VINCI Autoroutes	396	37.3%	2,112	42.0%	2,508	41.1%	2,556	-2%
VINCI Airports	539	34.0%	3,959	32.8%	4,498	32.9%	3,202	+40%
Other concessions	146	31.9%	520	46.3%	666	42.2%	621	+7%
Contracting	7,308	18.6%	19,960	12.4%	27,268	13.7%	25,524	+7%
VINCI Energies	2,738	16.9%	8,305	12.6%	11,043	13.4%	10,119	+9%
Eurovia	862	15.2%	4,373	11.0%	5,235	11.6%	4,948	6%
VINCI Construction	3,708	21.3%	7,282	13.3%	10,990	15.2%	10,457	5%
VINCI Immobilier and holding cos.	380	46.0%	368	71.0%	748	55.7%	658	14%
Total	8,769	20.3%	26,919	15.0%	35,688	16.0%	32,561	10%

Measures to promote the employment and social integration of people with disabilities

In 2019, €6.1 million of revenue was awarded to companies in Europe with workforces primarily comprised of employees with disabilities.

In some countries, legislation requires companies to employ a certain percentage of staff with disabilities (certain sectors are excluded from this requirement). Companies that do not meet the requirement must pay a compensatory levy. This levy amounted to €5.6 million in 2019.

Proportion of employees with disabilities by business line, with change

	2019						2018		2019/2018
	Managers	As a % of managers in the workforce	Non- managers	As a % of non-managers in the workforce	Total	As a % of the total workforce	Total	As a % of the total workforce	Change
Concessions	49	1.6%	501	2.7%	550	2.6%	519	2.9%	+6.0%
VINCI Autoroutes	34	3.2%	437	8.7%	471	7.7%	466	7.6%	+1.1%
VINCI Airports	11	0.7%	55	0.5%	66	0.5%	45	0.4%	+46.7%
Other concessions	4	0.9%	9	0.8%	13	0.8%	8	0.5%	+62.5%
Contracting	421	1.1%	3,104	1.9%	3,525	1.2%	3,443	1.8%	+2.4%
VINCI Energies	218	1.3%	1,482	2.2%	1,700	2.1%	1,658	2.1%	+2.5%
Eurovia	33	0.6%	727	1.8%	760	1.7%	721	1.7%	+5.4%
VINCI Construction	170	1.0%	895	1.6%	1,065	1.5%	1,064	1.5%	+0.1%
VINCI Immobilier and holding cos.	5	0.6%	17	3.3%	22	1.6%	20	1.6%	+10.0%
Total	475	1.1%	3,622	2.0%	4,097	1.8%	3,982	1.9%	+2.9%

1.6.7 Relations between management and labour

Collective agreements by category, with change

	2019	Portion of total agreements	2018	2019/2018 change
Flexible work arrangements	118	7.7%	138	-14.5%
Economic and social database	7	0.5%	4	+75.0%
Equality and diversity	79	5.1%	65	+21.5%
Union rights	223	14.5%	93	+139.8%
Economic and Social Committee procedures	308	20.0%	32	+862.5%
Training	11	0.7%	16	-31.3%
Job and skill management systems	9	0.6%	21	-57.1%
Mandatory negotiations (topic, frequency, etc.)	14	0.9%	7	+100.0%
Collective performance	2	0.1%	=	0.0%
Health and safety	29	1.9%	31	-6.5%
Welfare protection	46	3.0%	35	+31.4%
Quality of life	54	3.5%	68	-20.6%
Remuneration and benefits	569	36.9%	592	-3.9%
Pensions	13	0.8%	16	-18.8%
Collective mutual termination	2	0.1%	=	0.0%
Other	56	3.6%	73	-23.3%
Total	1,540	100.0%	1,190	+29.4%

Social performance 2.

The Group's socio-economic contribution to local communities and regions

2.1.1 Measuring VINCI's socio-economic footprint

VINCI is made up of a network of local companies that have long-established roots in the regions where they operate. Thanks to these local roots, as well as the autonomy and opportunities for initiative made possible by the Group's decentralised management model, VINCI companies play an important part in the life of surrounding communities.

As an investor, builder and operator of buildings and infrastructure, VINCI plays a key role in the transformation of cities and regions. Group companies therefore help to structure territories and improve their coherence, while playing a key role in economic and social development. Whether engaged in construction or concession activities, Group companies create value that cannot be delocalised and generate significant local benefits in the form of revenue, subcontracting, the development of ancillary activities, local tax contributions and support for local non-profit organisations.

Aside from economic contributions in the form of revenue generated and tax payments made by companies at local level, the Group's activities promote the growth and attractiveness of regions through the construction or upgrading of infrastructure. Furthermore, at a time when the requirements of customers - especially those of public sector or quasi-public sector customers, which generated €15.8 billion in revenue for VINCI in 2019 (more than 33% of total revenue) – are increasingly focusing on the environmental and social impacts of projects, Group companies are constantly working to provide innovative solutions, particularly in terms of energy performance, the design of urban eco-districts, promoting sustainable cities, as well as mobility and end-user services. As regional actors, they are key contributors to development, stimulating local and regional economies and spurring entrepreneurship on a daily basis.

Since 2014, studies have been carried out by an external partner to measure the socio-economic footprint and impacts of projects or companies, using the Local Footprint® tool developed by Utopies®. These studies are carried out for specific geographical areas, such as for VINCI's activities in the Loire Atlantique administrative department, or for specific sites or projects to build or operate infrastructure in France and other countries. They have involved both the Contracting business (Eurovia quarry in Solignac sur Loire and quarries managed by Jalicot, QDVC's worksites in Qatar) and the Concessions business (airports operated by VINCI Airports in France, Lamsac in Peru, the Bogotá-Girardot motorway extension in Colombia, the operation of Stade de France, etc.). Studies have also been carried out in connection with tenders (project to upgrade the Bambeto roundabout in Conakry, Guinea, works and operational phases of the western Strasbourg bypass, the T3C works package of the Paris metro's Line 15 South, etc.).

In line with this initiative, VINCI once again worked with the consulting firm Utopies® in 2019 to analyse the socio-economic footprint of all its activities in France. The approach used is attuned not only to the Group's vision and ambitions, but also addresses its responsibility to society; on the one hand, it helps identify the contributions of all VINCI companies to the French economy, covering around 15 industry sectors; on the other hand, it makes clear the importance of the Group's strong roots in local and regional economies and across its supply chain. This footprint study facilitates dialogue with local and regional stakeholders, public authorities, customers and other key actors, while encouraging discussions on ways to further strengthen VINCI's positive impacts for communities and its employees.

jobs are supported by VINCI, representing 2% of all jobs in France

According to the study, VINCI's activities support a total of 535,700 jobs in France (full-time equivalents). This figure includes the 93,800 direct employees of Group companies in France, as well as "indirect" impacts relating to the supply chain and "induced" impacts linked to the wages and taxes paid by VINCI companies and all their suppliers, which support household consumption and government spending (441,900 indirect and induced jobs). In France, these represent 2% of all jobs nationwide. The Group's activities therefore have a multiplying effect: each VINCI employee supports an additional 4.2 jobs in the French economy. This effect can be seen across various sectors, from the construction industry (26%) to transport and logistics (8%), along with education and health (21%). The study also determines the level of GDP generated within the French economy by these jobs. VINCI's activities in France contribute around €35 billion to GDP, representing 1.5% of national GDP(*), while for every €1 of value added by VINCI, €1.8 of additional wealth is generated in France.

This study also shows that the Group is present throughout France and on a relatively balanced basis in relation to the major economic trends for each region. The Group has a significant nationwide presence and contributes to economic development in all regions of France: in each one, it supports 1.3% to 3.1% of jobs and generates 1% to 2.1% of GDP. Lastly, the study shows that VINCI's supply chain primarily comprises Tier 1 suppliers. For instance, 82% of suppliers in the construction sector, the Group's core business, are in this tier.

In addition to this study, other approaches to track socio-economic metrics have been rolled out across the Group. For example, LISEA, the concession company for the South Europe Atlantic high-speed rail line (SEA HSL) connecting Tours and Bordeaux, set up a monitoring unit in 2012 in partnership with the concession grantor, SNCF Réseau, designed to record socio-economic data for a period of 10 years from the opening of the line to traffic. Its core mandate is to analyse the challenges and opportunities brought by the arrival of the highspeed rail line as they relate to geographical mobility, the local economy and regional development. Working alongside the concession company and grantor, this monitoring unit brings together French government agencies, regional and local authorities, chambers of commerce, universities and all other stakeholders legitimately considered as experts in the chosen research fields. In February 2019, a meeting attended by key sector representatives (elected officials, operators, researchers, business leaders, economic development stakeholders and beneficiaries, etc.) presented the initial findings from the monitoring unit's analyses to provide specific insights into the impact of this high-speed service for the Nouvelle Aquitaine region(**).

Impact analyses have also been carried out for international sites and projects, including the airports in Cambodia and Portugal, as well as the concessions for the Bogotá-Girardot motorway in Colombia and the Lima ring road in Peru. Still with the objective of measuring the scope of interactions with economic operators and stakeholders, these studies give VINCI companies a broader view of their business model and the impacts of their projects on the regions, as well as possible opportunities to maximise their impact.

2.1.2 Measures put in place by VINCI to maintain social cohesion in communities and develop employment

• Professional integration of the long-term unemployed in France

In France, public procurement contracts include social integration clauses requiring the recruitment of long-term job seekers. The French construction industry accounts for 70% of these clauses, corresponding to 2 million work hours per year for VINCI companies. To support the Group's companies and their subcontractors in implementing effective integration policies, VINCI Insertion Emploi (ViE), a social enterprise focused on integration and the only structure of its kind in France, was created in 2011. ViE's decentralised structure, sensitive to local realities, ensures that it is able to effectively respond to local needs in three key areas: integration, employability and social innovation helping people return to stable employment.

Activity of the ViE social enterprise, and change

	2019 ^(*)	2018	2017	2019/2018 change
Number of people benefiting from social integration measures	2,375	2,107	1,941	+12.7%
Number of hours of integration employment	1,033,253	804,678	777,238	+28.4%
Number of hours of training	31,072	20,999	22,852	+48.0%

(*) Data provided reflects information at 30 November 2019

In 2019, around 31,000 hours of training were provided, in addition to 8,000 hours for the Group's 15-minute safety sessions, an increase of 48% compared with 2018. To help build the skills of those benefiting from its social integration programmes, ViE is committed to extending their periods of employment with Group companies. Accordingly, 25% of the people taken on under social integration clauses were offered an additional contract once their first project was completed (21% in 2018, 18% in 2017, 14% in 2016). Over the year, 60% of the 2,375 people benefiting from these integration measures were subsequently hired by the Group or one of its subcontractors, thanks to the effective and ongoing support provided to teams. The increase in the number of hours of integration employment in 2019 was due to the start of work on some of the projects with which ViE was associated, including those of the Grand Paris programme, as well as the opening of two new ViE offices for the Grand Est and Auvergne Rhône Alpes regions.

Currently, ViE receives no public funding and is continuing to test solutions to improve employability, while exploring the ways in which it can promote social innovation and the most effective forms of assistance it can provide.

VINCI Construction, in partnership with Ares (a group of French companies active in economic and social reintegration) and the Fondation VINCI pour la Cité, created Liva, a social joint venture, in 2018. Today, this structure has 45 employees, including 32 on integration programmes. In 2019, four new initiatives for social enterprises to support integration were launched based on the same model, in partnership with three other leading French organisations active in social reintegration:

- Ïnva, co-founded by VINCI Autoroutes and La Varappe, specialised in motorway operations
- Tim, co-founded by VINCI Energies France and Vitamine T, specialised in facilities management
- Baseo, co-founded by VINCI Construction France and Id'ees, specialised in services for living facilities at project sites
- Tridev, co-founded by Eurovia and Id'ees, specialised in building cleaning operations and green space maintenance

• A commitment to supporting integration for young people

For the last six years, ViE has been developing an innovative approach to mapping transferable skills and competencies in support of social and solidarity economy (SSE) organisations as well as individuals targeted by integration measures who face significant challenges in entering the workforce.

This pioneering approach is being tested as part of a vast programme rolled out to support employment and integration. Called Give Me Five, this programme was launched at the end of 2018 to help tackle social inequalities. Created, funded and coordinated by VINCI, in partnership with local educational institutions, this programme targeting young people from priority neighbourhoods is being put in place in 10 regions across France. It is structured around five initiatives, each associated with a key area for action, including the following:

- -Guidance: Working closely with the French Ministry of National Education, VINCI is committed to welcoming up to 5,000 high-school students from priority education networks (REP) and reinforced priority education networks (REP+) for placements to discover the business world.
- -Integration: Working closely with Mozaik RH, a sourcing consultancy specialised in diversity and inclusion, VINCI is committed to reserving 20% of all its internships (gap year, graduates and summer jobs) for students from priority neighbourhoods, from those enrolled in high-school vocational courses to those pursuing master's programmes.
- -Employability: Working closely with France's National Agency for Adult Professional Training (AFPA) and local stakeholders from the social and solidarity economy, VINCI is putting in place a bespoke employability programme to help secure a return to stable employment for young long-term job seekers living in priority neighbourhoods. Based on the social engineering model, this approach, under the name "Stratégie territoriale pour l'emploi" (Territorial strategy for employment) and known by its French acronym Step, enables 10 young people to benefit from a six-month contract, combining three months of training with a three-month immersive experience in a VINCI company. When required, further support may be arranged over six months to achieve the goal of a return to stable employment. In 2019, four Step programmes were launched in Marseille, Nice, Stains and Nantes.

high-school students welcomed on work placements in France by end-2020 under the Give Me Five programme

These first three initiatives are currently being rolled out and will be further enhanced with an approach to provide personalised support for students (assistance with educational and career plans, academic support, etc.) and an apprenticeship-based programme.

Recruiting around 6,000 young people each year, VINCI companies maintain long-term partnerships with educational institutions and academic circles. These partnerships involve a wide variety of initiatives: sponsoring of graduating classes, support for specific degrees, site visits, recruitment fairs, sporting events, internships, etc. The general policy in this area is to further develop VINCI's employer brand to underpin the recruitment strategies of Group companies. In France and other countries, Group companies forge many local partnerships with apprenticeship centres, universities and other institutions of higher learning. Most of the partnerships in France are led by the human resources Pivot Clubs, which have strong local roots and bring together HR managers from across the Group. These human resources professionals and operational staff organise a range of actions for students at every stage in their studies to improve their knowledge of the Group and its businesses, but also to assist them in shaping their career plans and help with their personal

development. For example, in September 2019, VINCI set up a five-year partnership with Fondation Insa, which groups together six engineering schools in France, to support the development and promotion of a model for humanistic engineers: socially responsible engineers who are open to the world, able to take action to address complex issues and focused on serving the public interest. VINCI also supports the educational community through the allocation of the apprenticeship tax, which is coordinated both at Group level and by entities building relations with educational institutions in their local areas.

Several Group entities are also applying this proactive approach to promote employment and integration at local level. The dedicated unit for the Grand Paris Express projects has set up a training programme for drafting technicians in partnership with the Greater Paris GEIQ (one of several regional employers' groups formed throughout France to promote social integration through work and qualifications) and the Compagnons du Tour de France (a French organisation of trade professionals and artisans dating back to the Middle Ages), following which a number of individuals have been hired on permanent contracts. In 2019, the GEIQ supported 53 long-term job seekers through work-based training programmes at several VINCI companies specialised in various areas, including mining-timbering, demolition, pipe systems or project supervision, with the aim of developing their skills and supporting their return to employment.

• Social entrepreneurship and local development outside France

Through the Group's activities

Present in around 100 countries, the Group's companies contribute to creating and maintaining local employment around the world. Internationally, and particularly in emerging countries, their contribution to training and improvements in local skills supports regional development.

As they are highly labour intensive, VINCI's Contracting activities have substantial direct, indirect and induced impacts on regional employment. For employment at its worksites, the Group encourages the use of local resources, contributing to training initiatives in the various regions. Furthermore, practices in the Group's business sectors and the relatively short duration of projects encourage professional and geographical mobility. Accordingly, training efforts of VINCI companies address the needs and issues raised by these skills transfers. The mobility of VINCI employees thus benefits the entire industry and promotes regional development.

In Africa, Sogea-Satom (VINCI Construction), which uses local resources whenever possible for the work carried out on its sites, once again demonstrated its long-standing commitment to the training of local managers. The year also saw further growth for the Africa Pro Campus, created in Morocco in 2015 to expand training opportunities for its employees in Africa and reinforce the company's shared culture. In 2019, the Africa Pro Campus moved to Abidjan in Côte d'Ivoire. Over the year, 44,620 hours of training were delivered, a significant increase compared with 2018 (25,039 hours).

VINCI Construction Grands Projets (VINCI Construction) continued the rollout of its Skill Up programme, which aims to develop the knowledge and skills of operational and supervisory staff (manual workers, team leaders and site managers) around the world by setting up training centres tailored to the requirements of each project. These centres are designed to serve local teams employed on the projects. In 2019, new Skill Up training centres were set up in five countries: the Dominican Republic, Malaysia, Morocco, the Netherlands and Cambodia. With courses delivered to over 360 project participants (employees, subcontractors and partners) during the year, this training has also helped to improve their employability upon completion of work at the sites. The courses covered various subjects, such as slinging, scaffolding installation, concrete pouring, the use of concrete pumps, the operation of machinery and the use of tunnel boring machines. Given its scale and time frame, as well as its considerable training requirements in the initial period, the project to build the third phase of Line 3 of the Cairo metro was selected to set up a permanent training centre for the duration of the work at the Abu Rawash site. Its activity was ramped up in 2019, with the centre providing 32,485 hours of training to 4,252 trainees (compared with 14,857 hours and 1,278 trainees in 2018). On the other hand, activities are being scaled back in Qatar with the completion of the major NOH2 and Doha metro projects. Nevertheless, the QDVC Training Academy delivered 37,865 hours of training to 2,153 workers.

Building on this approach, with the ambition to support local skills development, several of the Group's subsidiaries are setting up their own networks of relations with educational institutions in the regions where they operate. Given its increasingly acute recruitment needs, along with the unique challenges due to the presence of its subsidiaries in sub-Saharan Africa, VINCI Energies has entered into new agreements with several schools and universities in Guinea, Senegal and Morocco. The Group's energy division also held its popular Young Talents Day recruitment event in Paris again in November 2019, an opportunity for final-year students from engineering, business, management and computer science schools to meet with company staff to discuss their interests and learn more about its business activities, with several hundred internships on offer, in France and other countries. This event had been held in both Paris and Casablanca in 2018. VINCI Construction maintains close ties with the academic community and is continuing to move forward with its policy for local integration in Asia-Oceania and Latin America (further strengthening its links with universities in Vietnam, Singapore, Hong Kong, Malaysia, Australia, Mexico, Colombia and Chile), as well as West Africa and Mauritius, where Sogea-Satom has set up partnerships with five higher education institutions. Each year, dozens of graduates from these top universities and schools join the Group's companies.

Through the Group's support for initiatives

Wherever they operate, Group companies support solidarity and development initiatives. Tailored to address local challenges, these initiatives vary depending on the region and its socio-economic circumstances. They are also tied to the nature of the work carried out by Group companies (large-scale projects completed in short time frames or recurring work), as well as to the presence or not of Group companies over the long term, etc.

Since it was launched 12 years ago, Initiatives Sogga-Satom pour l'Afrique (Issa) has supported social entrepreneurship projects to improve access to essential services through both financial assistance and skills-based sponsorship by employees. It involves local projects initiated in various areas (education, health, energy, local crafts, food production self-sufficiency, etc.) with a special focus on female project initiators. To date, Issa has supported 256 projects for a total of more than €4.3 million in 22 countries, involving the participation of 230 employees. In 2019, Issa supported 32 new economic and social initiatives in 15 countries.

Activities of Issa (Initiatives Sogea-Satom pour l'Afrique) in 2019

	Number of project	cts supported			
	Access to essential services	Social entrepreneurship		Number of countries involved	Total amount paid (in € thousands)
2019	18	14	32	15	649
2018	11	18	29	13	512
2017	4	21	25	8	480

Issa's new initiatives in 2019 included funding a project to fit out a vehicle with laboratory equipment for HIV/AIDS, hepatitis and tuberculosis screening and monitoring in Bouar, in the Central African Republic. Thanks to this new mobile unit, the Saint Michel de Bouar health centre will be able to provide care for patients living in villages within a range of around 120 km. In Burundi's Ruyigi province, 25 girls who have dropped out of school and/or been victims of violence due to their gender will benefit from a seamstress training programme each year. This training aims to help these girls become more self-sufficient by supporting them to set up an activity to generate income. In Brazzaville, the capital of the Republic of Congo, Issa is funding work to build hangers and acquire equipment (composters, shredders, tanks, etc.) to set up six units to produce organic inputs, working with the NGO Essor. This project is being led by an association of small-scale growers from Brazzaville's greenbelt area who are looking to improve their activity through agro-ecological techniques.

The widespread commitment by Sogea-Satom (VINCI Construction) to the fight against HIV/AIDS, malaria and cholera is demonstrated by initiatives at all of the company's sub-Saharan agencies, including the organisation of information meetings and awareness campaigns targeting employees as well as local residents. These meetings are led by project supervisors together with the company's occupational health and safety specialists, who may be assisted by local associations, NGOs or doctors. They often take the form of 15-minute health sessions, modelled on the Group's similar sessions focusing on safety concerns, and are sometimes complemented by more in-depth presentations and exchanges.

In Cambodia, VINCI Airports is a long-standing partner and shareholder of Artisans Angkor, an organisation created to perpetuate and encourage the development of Khmer traditional crafts while offering career opportunities to underprivileged communities in the Siem Reap region.

• Employee engagement supporting social integration and solidarity

VINCI encourages civic engagement on the part of its employees and companies, mainly through its corporate foundations and endowment funds. Local projects that support social and professional integration for underprivileged people are a key focus. In order to facilitate civic engagement on public interest issues by all Group employees around the world, 13 structures or programmes have been created since 2002. In 2019, VINCI Airports and VINCI Energies launched the VINCI para a Cidadania programme in Portugal and supported 15 Portuguese non-profits, sponsored by 15 VINCI staff in the country. The selected organisations are working to support access to employment, solidarity-focused mobility, integration through housing and social operations in priority neighbourhoods.

In 2019, Group companies provided close to €5.6 million of funding for these foundations, which supported around 480 projects promoting social, professional and economic integration for the most vulnerable people, with nearly 950 employee volunteers across the Group acting as sponsors.

To ramp up its actions, the Fondation VINCI pour la Cité has built up a network of ambassadors since 2017. More than 50 employee volunteers have put themselves forward to support project initiators, promote employee engagement and improve follow-up on the actions carried out, ensuring that they are closely aligned with local needs. Thanks to these efforts, the number of projects carried out and employees involved has doubled in two years.

The foundation's Cité Solidaire (Solidarity in the Community) programme, which targets very small non-profits working in disadvantaged urban areas, saw a fresh burst of activity, with eight new initiatives in Bordeaux, Clermont Ferrand, Brest, Dieppe, Lens, Nancy and the Yvelines administrative department in France, as well as Duisburg in Germany. Since its launch in 2010, this exemplary programme has been put in place at 39 sites and has funded 331 initiatives to strengthen social ties.

Actions of Group foundations in 2019 to combat exclusion and foster integration

	Number of projects supported	Number of employee sponsors	Amount distributed to foundations (in \in thousands)
France	353	801	4,232
of which Parcours Citoyen et Ambassadeurs programme	90	419	-
of which Cité Solidaire programme	41	126	706
of which Sillon Solidaire programme	13	13	150
of which Chantiers et Territoires Solidaires programme	15	-	282
Germany	22	28	300
of which Cité Solidaire programme	9	12	113
Belgium	15	14	265
Spain	6	6	75
Greece	2	2	30
Netherlands	5	9	86
Portugal	15	16	251
Czech Republic	9	13	27
United Kingdom and Ireland	37	39	277
of which Isle of Wight Foundation	7	7	94
Slovakia	13	13	47
Total	477	941	5,590

In terms of sports solidarity sponsorship initiatives, VINCI is supporting the Paris Football Club Academy and the club's training centre over five years (2015–2020) for a total of €5 million. Beyond the financial assistance provided, VINCI serves as a genuine partner for the club's players, helping them to plan their careers once they leave the world of high-level competitive sports. This educational and social partnership aims to promote the professional integration and vocational training of the club's young players. Specific modules and workshops (business immersion opportunities, workshops on preparing CVs, job interview simulations, etc.) are included in the training courses for players. VINCI employees are key actors in this partnership by mentoring players.

2.1.3 Relations with civil society stakeholders and procedures for dialogue with them (including customers, users and local residents)

General policy relating to dialogue with stakeholders

Owing to their position in the value chain, VINCI companies are continuously engaged in dialogue and consultation with all project stakeholders. While public authorities or private customers have responsibility for deciding on transport and energy infrastructure and on facilities to improve the living environment, including where they are to be located, in practice VINCI companies serve as a liaison with local communities, residents living near the structures they build, non-profit organisations and users. To better identify stakeholder needs and propose solutions that will be satisfactory for all concerned, VINCI has developed an easy-to-use mapping tool called Reflex. In 2019, a new version was put online for all the Group's entities. This collaborative platform, developed specifically for major projects, rounds out and helps bring a fresh perspective to the more traditional consultation processes, such as public meetings, site visits, etc.

The Group's approach in this area is enshrined in the "Together" Manifesto, which encourages Group companies to strengthen openness and dialogue with stakeholders as an opportunity and a means to create value with a positive impact.

In line with this approach, VINCI regularly consults with its stakeholders in the field of social innovation and human rights through six collaborative initiatives in which the Group participates: Leadership Group for Responsible Recruitment, Building Responsibly, Global Deal, Global Compact, Entreprises pour les droits de l'homme (EDH, Businesses for Human Rights) and Business for Inclusive Growth (B4IG). VINCI's active involvement in these initiatives and the resulting meetings and exchanges enable it to promote joint actions and partnerships, but also to co-build its approach with a very wide range of stakeholders (governments, businesses, trade unions, non-profits, universities, international institutions, etc.). This multi-stakeholder sharing is essential in order to take on board expectations and jointly develop approaches and actions that meet the challenges brought about by changes in society. In 2019, VINCI joined the Business for Inclusive Growth (B4IG) coalition, a global initiative managed by the OECD and made up of around 30 multinationals. This coalition's ambition is to put in place a new business model to tackle inequalities through commitments to more inclusive growth. Its core pillars include a pledge by members to fight inequalities, an incubator for inclusive business models and an inclusive growth financing forum to promote innovative financing mechanisms between private, public and philanthropic actors. The other initiatives are presented in section 4, "Duty of vigilance plan", page 237.

General policy relating to dialogue with customers and end users

The majority of VINCI's customers are public authorities or companies. With these customers, the objective embraced by VINCI companies involved in long-term partnerships – for motorways, airports, stadiums and other infrastructure – is to build relationships founded on trust over time, particularly through the services they offer. Except in the case of the Concessions business, the public-private partnerships of the Contracting business or the services provided by VINCI Facilities (VINCI Energies), private individuals are only rarely direct customers. Nevertheless, close working relationships with them are vital, right from the initial design phase, owing to the potential impact of projects on nearby residents. Also, the resulting exchanges can provide important insights into the acceptance of planned structures by communities.

Group companies implement a range of measures and actions to promote dialogue, consultation and exchanges with project stakeholders and other key local and regional actors, including elected officials, associations representing users of infrastructure and facilities, as well as people living or working nearby.

Since the opening of the South Europe Atlantic high-speed rail line to traffic and fully mindful of the impact on the local noise environment, LISEA, the concession company operating the line, has continued to honour its commitments, and thus extended its acoustic measurement campaign into 2019. This campaign's objective is to evaluate the adequacy of the procedures put in place under real traffic conditions. LISEA is thus engaged in direct and ongoing consultation with local and regional stakeholders, making sure that transparency remains central to its process. Actions include listening and responding to residents' questions and concerns, and engaging with mayors to identify measuring positions. Eighty local consultation meetings have been organised with mayors and residents' associations in the areas concerned to identify measuring positions. A total of 300 measurements have been performed by Cerema, a French centre for research on risks, environment, mobility, planning and development, with public meetings held to present the findings. The French Ministry of Transport recommended financing a dedicated fund, which would receive additional contributions from state and regional authorities. This fund will make it possible to respond to residents' concerns through relevant technical solutions, complementing those already in place, such as embankments, facade insulation measures and higher barriers.

people were met as part of consultations for the LISEA project

Through its quarrying and roadwork activities, Eurovia builds strong and lasting relationships with local stakeholders - residents, local government authorities, non-profit organisations and government agencies - using approaches such as information meetings, local committees for consultation and monitoring (CLCS), open days, and partnerships with non-profits and NGOs at local level. For the coating plants, a specific and more formal approach is implemented to forge these relationships, involving the use of a dedicated tool for presenting their activities, in order to facilitate communication between the company and its stakeholders.

• Initiatives to promote strong and lasting relationships with customers and users

Alongside their ambition to build and maintain strong and lasting relationships with their stakeholders, Group companies also seek to anticipate the needs and expectations of both their customers and the end users of the infrastructure and facilities they design, build or operate. They do so by developing innovative solutions, in particular to promote the well-being and safety of end users, gauge their satisfaction, remain attentive to their concerns and provide them with better information.

Attentiveness and satisfaction

Based on an idea that emerged from customers' suggestions, ANA (VINCI Airports) has developed a solution for managing passenger flows, in partnership with Thales Portugal, that monitors the dynamics of occupation within a space and the movement of people through it in real time. At the Lisbon airport, the implementation of this solution helped ANA and the airport's partners improve the management of passenger flows and reduce waiting times by 20%, raising passenger satisfaction levels. At Lyon – Saint Exupéry Airport, in association with the French government agencies concerned, an alternative solution to the destruction of items confiscated during passenger checks has been developed. Called See You Later, this paying service is the only one of its kind in France, offering the option for passengers to ask for confiscated items to be mailed to their home address. This airport has also developed a new automated parking system, introducing the world's first outdoor valet parking robots. Four autonomous robots are used to manage vehicles in a car park, with parking spaces booked online and customers benefiting from the same vehicle drop-off and pick-up point. In addition to revolutionising car park management and facilitating the overall passenger experience, this system also results in genuine space savings because it operates several queues at once.

VINCI Autoroutes aims to build constructive relationships with its customers, remaining attentive to their usage patterns and needs, in particular through the development of specific communications materials. VINCI Autoroutes has continued to set up Twitter feeds to deliver real-time and local information on traffic conditions, travel times or even weather alerts. This approach aims to improve responsiveness and help drivers anticipate and make better decisions in the event of an incident. The Twitter feeds round out the range of VINCI Autoroutes services: dedicated website, VINCI Autoroutes app, Radio VINCI Autoroutes and customer service number (3605).

Contactless toll payment is now possible at a growing number of sites across the VINCI Autoroutes network. Quick and secure, this payment method is another new practical service offered by the company and gets users through toll plazas faster. Alongside the development of electronic toll payment, it is part of the move to paperless transactions and reflects VINCI Autoroutes' ambition to constantly adapt its services to new usage patterns and the expectations of motorway users.

As part of its efforts to strengthen its range of everyday mobility services, VINCI Autoroutes has also continued moving forward with its actions to encourage carpooling. At the end of 2017, the motorway section crossing Lyon on the A6 and A7 was downgraded. After taking back the management of these 16 km of motorways, Métropole de Lyon, the local authority for the Lyon metropolitan area, decided to conduct experiments to encourage more sustainable mobility behaviours. On behalf of Métropole de Lyon, the technology research institute System X will be running a three-year pilot project to promote carpooling. It will be testing the implementation of reserved lanes in the downgraded section in partnership with several transport operators, including VINCI Autoroutes. Vehicles with at least two passengers, green vehicles (displaying the Crit'Air sticker), taxis, private hire vehicles or express buses would be able to use these reserved lanes and enjoy faster access to the city centre. This project could be supplemented with car parks reserved for carpooling and transport hubs strategically positioned at points leading up to the section including the reserved lanes. Teams from VINCI Autoroutes are taking part in forward-looking studies on carpooling, dynamic traffic regulation and lane enforcement.

To meet the growing demand for new homes and facilitate home ownership for the broadest possible segment of the population, VINCI Construction France has ramped up the development of its Primméa offering, with the commitment to provide high-quality and welllocated affordable new homes throughout the country, selling at 20% below the market price, on average. Focused on residents, Primméa is developed with the support of a collaborative platform, through which it is able to regularly obtain feedback from a representative panel of first-time homebuyers across France, which is then used to adapt the offer. In addition, Primméa involves consultation processes with local authorities, driven by the shared desire to complete each property development within a reasonable time frame, keeping costs under control and ensuring a good fit with its surroundings, particularly from an architectural and aesthetic standpoint. Since the launch of Primméa, 400 households have been able to buy their first homes.

VINCI Immobilier has introduced new tools to enhance the value in use of its products. To make the purchasing process for a property more fluid and intuitive, the customer experience is now entirely paperless, from virtual tours to electronic signatures. An extranet site allows customers to follow progress being made on the construction of their development and their purchase offer. Thanks to a 3D modelling system, they can visualise and stroll through their future homes as if they were actually inside them, and can also personalise them by changing their flooring options and decorative elements. Student Factory, another recent initiative, is a service that designs, develops and operates student residences in France, providing a solution to meet the growing demand for student housing, applying an innovative concept. Student Factory residences offer co-working spaces and a lounge, as well as a range of services to meet the expectations of the "digital native" generation. The customer experience, from choosing an apartment to signing a contract, is entirely paperless, while an online community organises life within the residence. Since this concept was launched in 2018, five residences have opened, with a total capacity of 740 rooms, which are all already occupied.

In addition to continuously working to improve the quality of service provided for its customers and conducting regular satisfaction surveys, VINCI ensures a particularly strong focus on road safety in the Group's mobility-related activities. VINCI employees drive tens of thousands of vehicles and site machines. They are all exposed to road risks, as are the hundreds of millions of people using motorways, roads and other infrastructure operated under concession contracts every year, as well as the airports operated by VINCI Airports (nearly 250 million passengers in 2019). Regular awareness and information campaigns are organised, and specific training is provided for those who are most exposed. For example, in 2019, VINCI Autoroutes launched six road safety campaigns in Russia to address critical safety issues (the main causes of fatal accidents on Russian roads) by distributing leaflets, setting up media communications, putting up posters with safety messages and organising customer activities, including a Customer Safety Day and workshops in schools.

In France, the VINCI Autoroutes Foundation for Responsible Driving continued rolling out its training programmes on responsible driving in several Group entities that are particularly exposed to road risks, as well as with external companies. The Foundation focuses in particular on preventing risks relating to driver inattention and drowsiness. Through its research programme, the Foundation funds several scientific studies and investigations looking at road user behaviours. It also plays a leading role in making information on these two areas of concern available to drivers and the general public.

In April 2019, the VINCI Autoroutes Foundation published the findings of its sixth European survey on responsible driving. This extensive survey, covering over 12,000 people in 11 European countries, assesses the behaviour and beliefs of European drivers. It monitors changes in risky behaviour and the development of good practices to ensure better targeting of prevention messages in each country. In November 2019, the Foundation presented the findings from two studies: in Athens, a groundbreaking survey conducted with Ipsos on parents at the wheel, and in Marrakesh, the first survey on responsible driving in Morocco.

Following on from its work to encourage people to drive more responsibly, the Foundation has also launched a major awareness campaign to warn people about the issue of rubbish thrown out of vehicle windows on motorways and the consequences of this uncivilised behaviour in terms of pollution, fires and risks for the motorway staff who have to collect this waste.

Across the entire VINCI Autoroutes network, many awareness actions concerning road safety and the safety of personnel working on motorways were conducted over the course of the year, directed at different categories of road users.

Accident figures for the VINCI Autoroutes network under concession

	2019	2018
VINCI Autoroutes motorway networks (in km)	4,412	4,412
Traffic (in billions of km travelled)	53	51
Number of accidents per billion km travelled	239	248
Number of fatal accidents per billion km travelled	1.5	1.5
Number of deaths per billion km travelled	1.7	1.8

2.2 Relations with suppliers and subcontractors

2.2.1 A Group-wide approach to promote responsible purchasing

For several years, the proportion of purchases has remained stable, representing 55% of the Group's revenue at end-2019 (57% at end-2018). They include €10.4 billion for materials (€9.8 billion in 2018), €5.4 billion for external services (€5.5 billion in 2018) and €9.1 billion for subcontracting (€8.2 billion in 2018).

In 2019, VINCI continued building on its responsible purchasing approach, aiming to measure and take into account workforce-related, social and environmental factors when selecting its partners. Responsible purchasing is seen as a real source of performance and innovation for the Group, and contributes to building strong customer-supplier relationships for the long term. It further strengthens VINCI's ability to act as an economically responsible operator.

Percentage of revenue allocated to purchases

_(in € billions)	2019	2018	2019/2018 change
Total amount of purchases	26.3	24.7	+6.5%
Percentage of revenue allocated to purchases	55%	57%	-3.8%
of which purchases consumed	10.4	9.8	+6.1%
of which purchases of external services	5.4	5.5	-1.8%
of which subcontracting (excluding concession operating companies' construction costs)	9.1	8.2	+11.0%

To accelerate this approach, the Group further strengthened its governance at the start of 2019, through several bodies at different levels within the Group

- A Purchasing Correspondents Committee was set up in February 2019. It is made up of VINCI's Executive Vice-President in charge of Contracting, who is also an Executive Committee member, as the Group Purchasing Correspondent, alongside six purchasing correspondents from the various business lines. These correspondents represent the senior management teams from each division. This committee's members also include VINCI's Human Resources Director and its General Counsel, who are both Executive Committee members, as well as the Ethics and Vigilance Director and the Group Purchasing Coordination Director. The committee meets twice a year to define a purchasing governance framework at the highest level of the organisation and approve a global road map for purchasing within the Group, including a global performance approach and covering both financial and non-financial aspects.
- The Inter-Business Line Purchasing Committee, whose membership was expanded at the start of 2019, is the operational branch of the Purchasing Correspondents Committee. Made up of purchasing directors and managers from each of VINCI's business lines and divisions, it meets around six times a year and is responsible for taking the necessary operational decisions to implement the road map and develop synergies between business lines for Group purchases, while aiming for all-round performance.

In addition, dedicated correspondents are in place to support Group companies and operations:

- a Group Purchasing Coordination unit, which reports to the Group Purchasing Correspondent. This unit works on an operational level with the purchasing departments in the business lines and subsidiaries through an extensive network, and puts in place framework agreements for approved suppliers, liaising with their local internal users;
- Purchasing Pivot Clubs in the regions or the main countries where the Group operates, linked to the senior executive Pivot Clubs, whose role is to help improve purchasing synergies and to promote and implement the Group purchasing policy at local level.

The criteria for responsible purchasing and the various actions to take these criteria into account are set out in a responsible purchasing quide, drawn up and distributed during the year by the Inter-Business Line Purchasing Committee to regional purchasing correspondents and published on the Group's intranet. An e-learning course to better understand this guide is currently being developed and will be rolled out in 2020.

2.2.2 Sustainable and long-lasting relationships with local suppliers and subcontractors

The Group has strong local roots in the countries where it operates thanks to its direct activities, as well as its purchases. Its extensive use of local suppliers and subcontractors is in line with the Group's commitment to supporting sustainable socio-economic development across its regions. These deep and enduring local roots are one of the pillars of VINCI's responsible purchasing approach. The Group is also committed to promoting balanced relationships with its suppliers and subcontractors over the long term, thanks in particular to constructive and continuous dialogue with these stakeholders.

The study conducted by the sustainable development consultancy Utopies© in 2019 on the socio-economic impacts of VINCI's activities in France found that direct Tier 1 suppliers make up the bulk of the supply chain for both of its core businesses, Contracting and Concessions. For instance, in France, 57% of VINCI's suppliers are Tier 1, with this figure rising to 82% for suppliers in the construction sector. Due to its decentralisation, its diverse activities and the geographical areas in which the Group operates, this approach makes it possible to take into consideration the specific features and situations seen locally, while ensuring the responsiveness needed to implement operations by working closely alongside its partners.

At central level, and in each of its projects, VINCI also promotes a partnership-based approach with its suppliers and develops close relationships with small and medium-sized enterprises (SMEs). Concerning the key categories of purchases for Group companies' activities, such as temporary employment agencies or construction equipment hire firms, the Group's strategy is based on approving as many local and regional partners as possible in order to build a strong nationwide network, while embracing its responsibility to society by engaging with stakeholders in the various regions. In addition, by building a network of industry operators in each region, VINCI contributes to regional economic development, which in turn contributes to the Group's success. In its selection and bidding processes, the Group prefers suppliers with strong roots in their regions. Currently, 67% of the Group's approved suppliers in France are SMEs with a nationwide footprint, and this is true for the Group's network of local companies as well.

of the Group's approved suppliers are SMEs

VINCI is also committed to taking into account and working with social integration structures, social enterprises, sheltered workshops and other organisations that specifically employ people with disabilities. For instance, in 2019, 45% of VINCI's approved temporary employment agencies were companies with a nationwide presence whose mission includes promoting integration through temporary jobs.

Lastly, this commitment to balanced, constructive and long-lasting relationships with suppliers and subcontractors is also reflected in the economic dependence indicator set up in 2019 to ensure that suppliers are not put at risk by VINCI accounting for too high a percentage of their revenues. This indicator is reviewed each year.

2.2.3 Taking social and environmental criteria into account in the Group's purchases

Approach to identify purchasing-related risks

In terms of the principles making it possible to define responsible purchases, VINCI considers that respect for human rights and international labour standards within its supply chain is essential and it tends to look for innovative solutions that support the environment, climate and energy transition. To this end, in 2019 the Group continued its work on integrating environmental and social criteria when selecting products and suppliers and when drafting framework agreements and specifications at Group level. These criteria take into account the environmental impact of products and services, the workforce-related arrangements for producing or providing them, and the social commitments made by suppliers. They are assessed using specific criteria for each purchasing category, depending on the issues faced by the sector in question.

The Purchasing Coordination unit conducts supplier assessments that factor in social and environmental performance, and the Group's buyers have an individual target for including these criteria in each contract they negotiate. Depending on the results of these assessments, suppliers or subcontractors may be excluded from the tender process or may be given a progress plan and action plan aimed at improving their environmental and/or social and/or safety performance levels. Audits or checks are carried out to verify the implementation of these plans. Some of these actions are described in section 4, "Duty of vigilance plan", page 237.

of contracts in 2019 involved the completion of a responsible purchasing questionnaire during the tender process

Collaboration between the Group's Purchasing Coordination unit and the head office ethics, human rights and social and environmental responsibility teams was further strengthened in 2019, ensuring that these aspects are integrated more effectively into the Group's tenders.

Lastly, an ethics and duty of vigilance questionnaire for suppliers and subcontractors was created in 2019 by the Group's Purchasing Coordination unit, working closely with the various functions concerned by the topics covered. This additional questionnaire has been distributed to suppliers working with the Group under framework agreements.

Key indicators for the Group's responsible purchasing performance

	Total at 31/12/2019
Contracts including one or more clauses on workforce-related, social or environmental issues	99%
Contracts having involved the completion of a responsible purchasing questionnaire during the tender process	80%
Contracts including a progress plan for responsible purchasing	50%
Number of on-site responsible purchasing audits conducted over the last five years	690

· Responsible subcontracting approach

The Group's priority is to retain and expand in-house expertise. However, the many public procurement contracts won by the Group, together with its growing presence in general contracting for projects demanding highly technical and specialised skill sets, may require the use of a certain percentage of subcontractors. VINCI makes every effort to ensure that its subcontractors comply with the regulations in force in the countries where Group companies operate.

VINCI's Subcontractor Relations Guidelines, rolled out in 2014, set out the Group's commitments in terms of subcontracting: safety conditions of subcontractors' employees that are comparable to those of the Group's personnel, respectful business relationships, fair bidding processes, transparency in business dealings, cooperation with local companies and compliance with VINCI's core values.

In order to further strengthen its vigilance and control over workforce-related risks in subcontracting, VINCI launched various pilot projects in 2018 to assess the practices in place and identify areas for progress. Moreover, recruitment agencies are subject to specific vigilance measures (see section 4, "Duty of vigilance plan", page 237).

2.3 Respect for human rights

VINCI's human rights approach and actions are presented in the discussion of the Group's duty of vigilance plan (see section 4, "Duty of vigilance plan", page 237 and paragraph 4.4, "Duty of vigilance with regard to human rights", page 245).

VINCI joined the UN Global Compact in 2003 and is committed to supporting and promoting respect for human rights within its sphere of influence, and to ensuring that Group companies are not complicit in human rights abuses. To define its strategy, VINCI refers to the principles of the Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights, the eight fundamental conventions of the International Labour Organisation and the OECD's Guidelines for Multinational Enterprises. Within this framework, VINCI has updated its analysis of the human rights risks associated with its business activities. The key issues identified were grouped into five categories, themselves divided into 17 themes, covering the entire life cycle of projects (from responses to calls for tenders to entry into service and operations). These five categories are: a) recruitment practices and migrant workers, b) working conditions, c) conditions of accommodation, d) practices relating to human rights within the value chain, and e) relations with local communities.

A Group-wide reference guide has been published: VINCI's Guide on Human Rights, It provides an overview of the issues identified and their implications for the Group's companies. The guide also presents a shared set of guidelines, indicating the specific approaches to be adopted with respect to each of these 17 themes. This guide applies to all Group employees and is available in around 20 languages. It was presented to the European Works Council and approved in April 2017 by VINCI's Executive Committee.

VINCI's Guide on Human Rights

main issues

This approach and its implementation are being led by a dedicated committee, set up in 2015, which brings together human resources directors from all the Group's business lines and divisions and meets on a quarterly basis. Each of its members is responsible for the rollout of the approach for their scope, taking into account the specific features of their activities and sites. A dedicated team in the Group Human Resources Department supports the business lines and divisions, develops mapping and assessment tools, and monitors emerging developments in various fields.

A range of tools is being developed to support the operational implementation of this approach and assist the teams with the application of these guidelines. They include training modules, country-level risk maps and a performance assessment tool. To date, risk maps have been drawn up for 19 countries with support from an external provider and 57 subsidiaries have been assessed in 23 countries, covering a total of over 12,500 employees. Depending on the assessment's findings, an action plan is prepared and put in place as part of a continuous improvement approach.

In support of its policy and to raise the bar for the protection of human rights along its value chain, VINCI actively participates in various collaborative initiatives, including Building Responsibly, a global business initiative co-founded by the Group that serves the engineering and construction industry, and the Leadership Group for Responsible Recruitment. These collaborative initiatives and tools are described in detail in paragraph 4.4, "Duty of vigilance with regard to human rights", page 245.

VINCI's commitment to human rights is reflected in specific actions that are closely aligned with and tailored to its operations. In Qatar, where VINCI is present through its joint venture Qatari Diar VINCI Construction (QDVC), employment and working conditions have been monitored more closely, leading to a number of measures, often pioneering new progress in the country, from implementing risk prevention tools for recruitment to organising elections for migrant worker representatives and providing them with training, signing a framework agreement with an international trade union, conducting audits of subcontractors looking at accommodation and working conditions, as well as other initiatives in association with a number of stakeholders focused on promoting workers' rights in this country. Further details on the actions taken, particularly in Qatar, can be found in paragraph 4.4, "Duty of vigilance with regard to human rights", page 245.

2.4 Business ethics

2.4.1 General approach to business ethics

. An integrated, cross-business approach, supported at the highest level within the Group

Ethics - the second commitment of the VINCI Manifesto - are central to all professional relationships between VINCI and its stakeholders. This commitment, led at the highest level, is integrated across all the Group's business lines using a cross-business approach. VINCI has embraced a global acculturation approach engaging everyone to adopt collective and individual behaviours that are aligned with this commitment

Two reference guides constitute the framework for the Group's recommendations and requirements in this area:

- the Code of Ethics and Conduct, which sets out the rules of conduct for all Group companies and employees;
- the Anti-corruption Code of Conduct, which lays down the rules for the prevention of acts of corruption, notably by identifying the corruption risks in business processes and illustrating the behaviours and practices to be avoided.

These two documents have been translated into 30 languages. They are available on the Group's website and its intranet, and are included in the welcome pack for new employees. The Group's principal managers are formally committed to respecting them and ensuring that they are applied.

· Structured governance framework

Working closely with all the Group's functions, the Ethics and Vigilance Department supports the implementation of the Group's compliance arrangements and specifically its corruption prevention procedures.

Set up in March 2018, the Ethics and Vigilance Committee has seven members, five of whom also serve on the Executive Committee. It ensures that the compliance procedures covered by the Code of Ethics and Conduct are implemented and amended as necessary, particularly with regard to:

- preventing corruption;
- preventing serious violations of human rights and fundamental freedoms, harm to human health and safety, or damage to the environment resulting from Group activities.

This committee supervises changes to the Code of Ethics and Conduct and the Anti-corruption Code of Conduct and met five times in 2019.

Business line implementation led by a network of ethics coordinators and officers

The strategic governance framework put in place by the Group is based around a network of coordinators and officers that makes it easier to implement relevant action plans in the business lines.

The Ethics and Compliance Club, which brings together the Group's General Counsel and the legal heads of the Group's business lines. the Internal Control Director and the Ethics and Vigilance Director, monitors emerging regulatory developments and shares best practices, particularly in terms of training tools or third-party assessment processes. This club helps prevent unethical business practices. It met six times in 2019.

Alongside this, the GDPR Representatives Club, which was created in early 2018 and brings together representatives appointed by each of the Group's business lines, provides support to the business lines to ensure the widespread adoption and application of effective personal data protection processes, notably in accordance with Regulation (EU) 2016/679, known as the General Data Protection Regulation (GDPR). This club, coordinated by the Ethics and Vigilance Department, supports the sharing of tools and best practices.

For example, it helped select a shared tool to supplement the arrangements in place to ensure GDPR compliance. In addition, the club rolled out a mini-series of six GDPR awareness e-learning modules, gradually translated into the Group's core languages, to familiarise employees with the new rules in force and their rights and obligations with respect to the protection of personal data. It met six times in 2019.

2.4.2 Business ethics measures put in place

During his 2018-2019 roadshow, Xavier Huillard met with nearly 8,000 employees, systematically reminding them about the Group's ambitions in terms of overall performance and compliance.

Training and information

Training and information are key factors for implementing the Group's business ethics policy. To enable all of the Group's employees to effectively contribute to preventing and detecting corruption, depending on their duties and responsibilities, training programmes are developed and rolled out at each of the Group's organisational levels. These programmes ensure that employees understand the related domestic and even international legal regimes, and are fully aware of the issues involved and what is expected of them. The corruption scenarios identified and the associated risks are clearly presented, along with the procedures to be carried out to limit these risks, the best ways to respond to inappropriate demands, the procedures for reporting suspicions concerning corrupt conduct, as well as the disciplinary actions that may be taken or the criminal penalties that may apply to individuals for any infringement of rules or regulations. As exemplary managerial behaviour is essential to effectively spearhead ethical practices within its subsidiaries, the Group's conduct guidelines are covered in all the management training programmes.

staff trained on ethics in 2019

The Ethics and Vigilance Department regularly gives presentations for manager events (conferences) and cross-business network meetings, such as human resources, communications, tax expert, buyer, insurance or financial seminars, as well as the Pivot Clubs.

VINCI's anti-corruption arrangements













Whistleblowing procedure

The Group's whistleblowing arrangements, available on the Group's intranet, have been further enhanced since 1 January 2019, with the launch of the VINCI Integrity online whistleblowing platform, after receiving the go-ahead from the European Works Council. This platform makes it possible to collect whistleblowing reports concerning serious infringements of the Group's rules and commitments set out in the reference guides on human rights, health and safety, business ethics and the environment.

All employees therefore have access to several channels for reporting their concerns. They can refer matters to their managers, they can use their business unit's local whistleblowing procedure, when one exists, or they can contact the Group's Ethics Officer directly. The VINCI Integrity platform is also available to external stakeholders on the Group's website.

Risk assessments

The assessment of business ethics-related risks is an integral part of the policy for managing risks that might affect the Group's global performance or image. It is incorporated into both the project analysis process (Risk Committee) and the external growth process (Investment Committee). Key suppliers and subcontractors are assessed before the Group starts doing business with them and/or during the contractual relationship thanks to various measures, including multidisciplinary questionnaires.

Accounting controls and audits

The accounting processes put in place help prevent corruption. The internal audit plans and self-assessment processes include a series of questions aimed at ensuring the effectiveness of the arrangements for preventing corruption.

Visibility and promotion of the ethics policy

Since 2019, 100% of management training programmes have included an ethics module.

2.4.3 Tax measures put in place

VINCI's highly decentralised organisation is structured around business lines and operating subsidiaries, rather than by country or geographic region. The Group's substantial expense relating to taxes, fees and other compulsory payments represents a significant portion of its contribution to the economies of the countries where it operates. The Group meets its tax obligations, in full compliance with applicable local and international laws and in line with VINCI's intangible and universal commitments.

In accordance with VINCI's Code of Ethics and Conduct, as well as its general guidelines, strict compliance with applicable laws and regulations is a core principle for the Group, one that must be followed in all circumstances by every employee and every business unit in the countries where they operate.

Due to the specific features of VINCI's business model and its activities, which are primarily local, the Group's entities tend to favour local suppliers for their purchases of goods and services. For this reason, cross-border transactions between its various companies are limited and not material. The invoicing principles applied follow the OECD Transfer Pricing Guidelines. These guidelines incorporate the recommendations resulting from the OECD/G20 Base Erosion and Profit Shifting (BEPS) Project, and in particular Actions 8-10 "Aligning Transfer Pricing Outcomes with Value Creation", supplementing the Group's adherence to the arm's length principle.

Given the autonomy granted to the Group's subsidiaries, the main tax risks that may arise in connection with their activities relate to the diversity, scale and/or complexity of operations. These risks may be either financial or reputational.

- Financial risks:
- -Tax compliance and related risks: late filing of returns, inaccurate tax returns, failure to submit claims and options on time, or any other tax compliance failure whatever the reason may be (human error, system error, etc.);
- -Operational tax risks: technical or factual inaccuracies, lack of in-depth tax analysis, unanticipated changes in tax legislation, misinterpretation of complex or unclear tax rules;
- Reputational risks: these risks are triggered by financial risks that may affect the Group's relations with various parties, such as the tax authorities

Tax issues, like all other financial information, are reviewed on a regular basis by the CFOs of all Group entities, particularly during calls for tenders, at each budget phase, in connection with the preparation of annual and half-year financial statements, and whenever required. Each CFO reports directly to the entity's chairman, to the members of its Board of Directors or other competent supervisory body, as well as to the CFO at the next hierarchical level.

As expressly indicated in the Group's general guidelines, the CFOs must ensure that financial data is presented in accordance with the standards, principles and procedures in force. Financial data, which includes tax data, is reported, managed and verified using reliable accounting systems that are regularly monitored to ensure that they are functioning efficiently and audited. The employees who use them are provided with training.

For any tax issue, the CFOs can request assistance from in-house experts, at each division's main holding companies, in the business lines and at VINCI SA level, and/or from outside consultants, depending on the issue's complexity and materiality. Any outside consultant providing assistance must pledge to abide by the values expressed by VINCI and particularly those set out in its Code of Ethics and

VINCI takes the tax consequences of its operating activities and/or its investments into account and may make use of the options provided by local regulations to alleviate its tax or administrative burden. Nevertheless, in all cases, the Group's fundamental principle is to reject the use of aggressive tax planning or other artificial structures designed in particular to avoid paying taxes, as well as any participation in other arrangements mainly for tax purposes that would offer no real commercial advantage. Similarly, whenever VINCI maintains a presence in a country considered as a tax haven, it is uniquely as a result of its operating activities. If a tax risk is identified, proportionate solutions are designed and implemented, in collaboration with the relevant tax and financial teams, in order to minimise this risk. These analyses and solutions are regularly updated in line with changes in projects and the Group's organisation, as well as legal and regulatory developments. Whenever necessary, they are discussed and reviewed with auditors and/or the competent tax authorities.

One of the Group's key expectations of its subsidiaries is that they build and maintain good, transparent and constructive relations with the tax authorities in each of the countries where they operate. In line with this commitment to transparency and cooperation, VINCI SA, with all its consolidated subsidiaries, has signed up to the tax partnership system in France since April 2019.

Environmental performance

A new environmental ambition

On track to meet the commitment set out in its Manifesto to reduce its carbon intensity 30% below 2009 levels by 2020, VINCI has marked out a new, ambitious trajectory toward 2030.

This shared ambition for the environment is the result of a large-scale collective project under way for the past several months at VINCI, garnering support from all Group business lines and divisions. The entities reviewed all the initiatives in each area of their business that could potentially reduce their environmental footprint. The design of the Group's approach to achieving its new environmental targets, which has involved the participation of representatives from the various business lines, also includes an economic assessment. This assessment is used to define action plans, which are currently being adapted for integration into the strategic plans of Group

All VINCI businesses have thus come together to lower their environmental footprint significantly over the next few years, by reducing their carbon footprint, their impact due to the use of natural resources, and any potential harm to natural environments. As well as scaling back its own impacts, the Group also aims to develop solutions that generate green value, by supporting customers, suppliers and partners in their environmental efforts.



- Follow a trajectory to help limit global warming to 2°C, involving a 40% reduction in direct greenhouse gas emissions (Scopes 1 and 2) by 2030 compared with 2018 levels
- Take action across the entire value chain by reducing indirect carbon emissions both upstream and downstream
- Integrate climate resilience in practices and solutions



Circular economy

- Limit extraction of virgin materials in favour of recycled materials
- Promote construction techniques and materials that economise on natural resources
- Improve waste sorting and recovery



Natural environments

- Assess and avoid noise pollution and environmental incidents in the Group's business activities
- Reduce water consumption, especially in areas of water stress
- Initiate a programme to achieve a zero net loss of biodiversity

3.1.1 Embedding environmental responsibility in day-to-day operations

3.1.1.1 Internal governance

VINCI's new environmental ambition is founded on the commitments embraced by the Group's Executive Committee and taken up by each business line, the empowerment of all operational staff within Group companies, as well as open dialogue with national, European and international public authorities and environmental protection organisations.

The operational departments coordinate and ensure the application of VINCI's updated environmental goals in all aspects of day-to-day work. They rely on a worldwide network of over 500 correspondents who are in charge of managing environmental risks, developing initiatives to protect the environment and supporting all efforts to deliver on the new ambition.

The Group's Environment Committee, overseen by VINCI SA with representatives from each business line, coordinates the Group's environmental actions. This committee brings a response to global environmental issues by defining the components of VINCI's environmental ambition and by leading cross-business projects, while ensuring that Group companies take adequate steps to adapt the measures introduced in line with the new goals to their local context. Meanwhile, several working groups have also been set up, comprising operational experts from each business line, such as the Biodiversity Task Force and the Circular Economy group, along with special focus groups created to implement climate change action plans.

3.1.1.2 Turning risk management into opportunity

Incorporating environmental issues into the Group's businesses first requires a strong grounding in risk management, regulations, environmental impacts and incident prevention. But it also involves a more proactive approach, anticipating issues relating to the urgent imperative to protect the environment, one that can also create environmental, social and economic value in the medium and long term.

• Environmental management

Apart from the main components of the Group's new environmental ambition and compliance with regulations, to better understand the local context and attitudes about the environment, VINCI companies develop and maintain environmental management systems and continuous improvement processes.

VINCI continuously works to improve practices at Group companies to avoid, or reduce as much as possible, the impact of its business activities on the environment. This commitment, supported at the highest level of the Group's organisation, is adapted and monitored in line with the Group's decentralised management structure to meet each company's specific needs and take appropriate measures. VINCI encourages its subsidiaries to obtain environmental certification such as ISO 14001 to improve the effectiveness of their environmental management system.

For example, VINCI Autoroutes has had all its in-service motorways ISO 14001 certified. Meanwhile, VINCI Airports plans to have all of its airports ISO 14001 certified by 2020. In 2019, 18 airports obtained the certification, accounting for 63% of the division's revenue. In Contracting, the proportion of revenue generated by certified entities remained stable at VINCI Energies and VINCI Construction.

Group activities covered by ISO 14001 environmental certification

ISO 14001							
(as a percentage)	2019	2018	2017	Indicator	Geographical scope		
VINCI Autoroutes					France		
Motorways in service	100	100	100	Kilometres	France		
Motorways under construction	-	-	-	Kilometres	France		
VINCI Airports	63	52	52	Percentage of revenue	World		
Other concessions	19	7	24	Percentage of revenue	World		
VINCI Energies	48	47	44	Percentage of revenue	World		
Eurovia					World		
Production from quarries owned	50	50	60	Tonnes	World		
Production from coating plants owned	60	58	48	Tonnes	World		
Production from binder plants owned	68	77	67	Tonnes	World		
Revenue from the works activity	27	30	27	Percentage of revenue	World		
VINCI Construction	80	79	83	Percentage of revenue	World		

Together with this local management approach geared towards meeting individual site requirements, some Group companies have also created their own environmental labels. Created in 2016. Eurovia's Environmental Excellence label recognises the initiatives taken at worksites to protect the environment, while highlighting the value of employee engagement in these shared efforts. The label is awarded to projects that meet all of the 47 assessment criteria reviewed in an internal audit. These criteria are grouped into five environmental impact categories, and are supplemented with additional comments on specific issues. To obtain the label, each worksite must not only comply with a set of basic requirements that applies to all projects, but also identify one or more specific issues in the project that reflect how it demonstrates this excellence.

• Preventing environmental incidents

Among the ways that environmental matters are incorporated into the Group's businesses, each entity prepares and updates environmental incident prevention plans in response to its specific environmental risks. VINCI's duty of vigilance plan, in accordance with requlations (Law no. 2017-399 of 27 March 2017 on the duty of vigilance of parent companies and subcontracting companies), is presented in section 4, "Duty of vigilance plan", page 237.

In 2019, VINCI or its subcontractors were involved in three major environmental incidents (one in 2018). A major incident is defined as one that creates extensive pollution requiring clean-up by external specialists and has consequences stretching beyond the entity's responsibility. The term pollution covers any harm to all aspects of the environment: air, water or land quality, biodiversity, and so forth. One of these three environmental incidents occurred in Peru, where oil was spilled along a 2 km stretch of the motorway network (for which Lamsac holds the concession). Measures were taken in line with local regulations. The second incident was a soil pollution event involving Eurovia's operations in Poland. All available means were taken to repair the damage caused. Lastly, in early 2019, an accidental spillage of materials (limited amount of grey water containing sand and traces of deactivated cement) into the Seine occurred at a concrete mixing plant in Nanterre, outside Paris. The plant supplies concrete to the worksites of the e-déf Eole-La Défense project, where several VINCI Construction divisions are working. The worksite's managers took measures to restore the site and offset the impact.

3.1.1.3 Employee awareness initiatives

In order to deliver on its environmental ambition, the Group relies on keen awareness and engagement in environmental issues from all VINCI employees. The rollout of training and awareness actions through all activities reflects efforts to share best practices and pass knowledge on to others.

In 2019, these actions represented a total of 42,055 hours, a 14% increase compared with 2018. Training on environmental issues is increasingly incorporated into existing courses (works, studies, operations, etc.). For example, modules on the environment are included in the annual training programme for new engineers, site managers and Eurovia division managers. Awareness is proactively promoted at worksites among employees, temporary staff and subcontractors with weekly 15-minute environment sessions. This initiative has been rolled out across all activities in the Contracting business in France.

Environmental training and awareness, with change

	Number of ho	Change	
	2019	2018	2019/2018
Concessions	14,078	7,491	+88%
VINCI Autoroutes	8,771	6,331	+39%
VINCI Airports	5,104	766	+566%
Other concessions	203	394	-48%
Contracting	27,956	29,476	-5%
VINCI Energies	5,405	6,733	-20%
Eurovia	6,276	5,060	+24%
VINCI Construction	16,275	17,683	-8%
VINCI Immobilier	21	-	0%
Total	42,055	36,967	+14%

In 2019, to promote the effectiveness of environmental actions on the ground, the Group's business lines devoted specific attention to the introduction of training and awareness modules tailored to their activities. At Eurovia, an e-learning module on the environment was created. VINCI Facilities, VINCI Energies' facilities management brand, has set up a training programme on energy performance for technicians and business line managers. In Concessions, the training programme for new hires at VINCI Airports includes an environmental awareness module in the form of a virtual tour of an airport, to help them understand the environmental issues involved at this type of site. Specific modules have also been designed for key managers.

VINCI's environmental ambition also involves the rollout of these training courses on a larger scale over the next few years.

3.1.1.4 Environmental reporting coverage and scope

To monitor VINCI's environmental performance, the environmental reporting system uses the same software as the Group's financial and workforce-related reporting systems and is based on the standards of the Global Reporting Initiative's Sustainability Reporting Guidelines, which have been adapted to the Group's activities (see the cross-reference table on pages 373 and 374). Covering nearly all of the Group's companies, the system uses around 60 quantitative indicators for measuring performance against key environmental parameters, such as greenhouse gas emissions, consumption of resources, circular economy initiatives, certification, and environmental incidents. Environmental reporting is prepared using updated methodological quidebooks and procedures that are available on the Group's intranet. In addition to this central reporting system, each business line uses its own management indicators. The note about the reporting methods used by VINCI, on pages 258 to 260, covers the key points.

The data presented in this report is consolidated using the same method as VINCI's financial data. Some entities, such as Qatari Diar VINCI Construction (QDVC), which is 49%-owned by VINCI Construction Grands Projets, are still accounted for under the equity method. VINCI has submitted its environmental information for review by its Statutory Auditors since 2002. Environmental data is presented in compliance with Article 225 of France's Grenelle II Environment Act and additional provisions set forth mainly in application of the law on the energy transition for green growth (Article 173) and the law on combating food waste. It also meets the requirements of Order no. 2017-1180 of 19 July 2017 and Decree no. 2017-1265 of 9 August 2017, which transposed the European directive on disclosure of non-financial information by certain large undertakings and groups into French law. At the end of 2019, environmental reporting covered 96% of total revenue generated.

Environmental reporting coverage, excluding acquisitions in 2019

(as a percentage of revenue)	2019	2018	2017
Concessions	100	100	99
VINCI Autoroutes	100	100	100
VINCI Airports	100	100	100
Other concessions	100	100	89
Contracting	-	-	-
VINCI Energies	100	100	100
Eurovia	100	100	100
VINCI Construction	88	88	90
VINCI Immobilier	100	100	100
Total	96	96	97

3.1.2 Dialogue with stakeholders

VINCI's environmental ambition involves a large number of stakeholders, with key initiatives to better identify their needs and bring them the right answers, but also in line with the Group's aim to make a difference across its industry sectors. Externally, VINCI thus contributes to improving knowledge and spreading best practices in its industries. The Group also rallies its partners and suppliers to play a part in accelerating the development of environmental solutions that meet the challenges of climate change, the circular economy and the protection of natural environments.

Several Group entities have forged partnerships with the Bird Protection League (LPO) in France. For example, VINCI Autoroutes promotes collaborative and sustainable management of biodiversity, in particular through its strong partnership with this organisation since 2014, in order to protect ecosystems near its motorway network during the construction and operation of motorway sections. VINCI Autoroutes will be funding a number of environmental protection initiatives carried out by LPO France and its network. In addition, VINCI was a partner of the LPO's U2B programme focusing on urban planning and biodiversity for the 2016-2019 period. This programme's main focus is the preservation and rehabilitation of ecological continuity in urban settings. The long-standing partnership between the Unité Mixte de Service (UMS) Patrimoine Naturel, also known as PatriNat (a collaborative research and education entity focusing on natural heritage) and Eurovia is an emblematic example of this policy to educate and maintain continuous dialogue with external stakeholders with the aim of reducing the environmental footprint of projects. This partnership was renewed in 2019 for four years.

Along with their institutional partnerships, VINCI companies provide solutions for dialogue with stakeholders. They strengthen communication with local residents near worksites, through information meetings, improved signage, worksite visits and new communication channels. For example, Eurovia developed a website, www.infochantier.fr, in 2019 to communicate more easily with people living near many of its worksites in France this year. This continuous improvement in dialogue with different stakeholders is also shown by the update to the Reflex tool in 2019 (see paragraph 2.1.3 in this chapter, page 214).

3.1.3 Environmental solutions

VINCI aims to deliver on its environmental ambition not only to address its direct impact, but also to bring its suppliers, subcontractors, partners and customers on board to reduce their environmental impact and create green value. Examples of solutions are provided in the following sections for each area of action. These solutions integrate eco-design into Group companies' existing operations and also involve new service offerings that benefit the environment.

Demonstrating ways of integrating environmental issues into Group projects, VINCI companies continue to gain expertise about environmental certifications and labels for their projects. In 2019, the volume of business represented by projects having earned internal or external certifications or labels amounted to €3.7 billion. Since 2010, 3,253 projects have been awarded certifications and labels, for a total volume of €32.9 billion. VINCI Construction and VINCI Immobilier companies delivered 284 certified projects in 2019, involving both new and refurbished buildings. All of VINCI Immobilier's residential properties meet NF Habitat HQE® standards, while most of its office buildings are HQE® and/or BREEAM® certified. VINCI Construction France encourages all initiatives to meet low-carbon construction standards for the structures, facilities and infrastructure that it designs and builds. The Pulse project north of Paris, delivered in January 2019, was built in a mix of wood and concrete. The teams from VINCI Construction France helped bring this office building complex into line with strict environmental and circular economy standards, earning it both HQE® Excellent and BREEAM® Very Good certifications. The project made reuse a priority, covering 95% of the building's surface area, i.e. nearly 22,000 sq. metres, in false flooring made with materials recovered from other worksites.

.7 billion

in projects awarded environmental certifications and labels in 2019

3.2 Climate change

3.2.1 Climate change goals

• Leading by example for the Group's direct greenhouse gas emissions

Since 2007, VINCI has maintained a proactive approach to reducing and monitoring its greenhouse gas (GHG) emissions. With the "Promote green growth together" commitment in its Manifesto, VINCI pledged to achieve a 30% reduction in its direct GHG emissions, expressed as carbon intensity in relation to revenue, by 2020 compared with the base year of 2009 (71.1 tonnes of CO₂ equivalent). The Group was on track to meet the target as the new decade approached, reporting a 28.3% decline in 2019 (51.0 tonnes of CO₂ equivalent). This performance is due to a combination of factors, including efforts to improve the energy efficiency of Group companies, increasing use of electricity from renewable energy sources, improved fleet of vehicles and machines, as well as changes in VINCI's business mix in favour of Concessions activities, which consume less energy than Contracting operations.

The common goal set by the Paris Climate Agreement is to limit the rise in global average temperature to less than 2°C by the end of the century. Following this trajectory, VINCI aims to reach the target of carbon neutrality (i.e. net zero emissions) by 2050 in its direct scope of business activities. As such, the Group is engaged in a proactive approach to achieve a 40% reduction in Scope 1 and 2 GHG emissions by 2030 compared with 2018 levels (see page 228). That comes out to a decrease of 940,000 tonnes of CO2 equivalent relative to the scope of business activities in 2018. As an absolute value, this target will be updated in line with any significant changes to the Group's scope, such as acquisitions.

Ambition for 2020

30% reduction in carbon intensity from 2009 levels

Ambition for 2030

40% reduction in absolute GHG emissions from 2018 levels

In 2019, after carefully analysing the steps to be taken, the Group's business lines realised that a reduction of at least 30% by 2030 is achievable by applying a set of identified, budgeted actions, which include economic measures. These actions mainly involve worksite vehicles and machines, materials production sites, buildings and remote sites. But the more ambitious reduction target of 40% over the same period requires further technological advances that are still under development, therefore leaving a degree of uncertainty as to their completion.

• Acting to reduce the impact of the Group's indirect "core business" scope

VINCI has chosen to act on a business scope, equivalent to Scope 3 emissions, which comes directly under the sphere of influence of its businesses, where its companies can make an impact. These actions are applied both upstream in the value chain with suppliers and downstream for customers and infrastructure users.

Business lines draw on various resources to monitor Scope 3 emissions, especially in Concessions. A methodological tool has been developed to estimate indirect emissions from VINCI's entities involved in buildings businesses, covering materials used and energy used during construction and operation phases.

• Integrating climate resilience in practices and solutions

To adapt to the consequences of climate change, VINCI companies integrate the notion of resilience into their projects to protect the structures built and solutions implemented for customers. That is why anticipating long-term effects is a key approach in VINCI's climate change strategy.

A forward-thinking working group from the Leonard innovation platform, representing all the VINCI units concerned, together with the startup Resallience, also launched by Leonard, are working on developing the resilience of certain projects and regions to climate change worldwide.

3.2.2 Measures to address and adapt to climate change

VINCI companies have been implementing ambitious policies to combat climate change for many years. Every year, these policies are reviewed by an independent organisation, CDP (formerly the Carbon Disclosure Project). VINCI was again included in the Carbon Disclosure Leadership Index (CDLI) France in 2019, achieving a score of A- for the second year in a row. This project, which is conducted on behalf of 529 investors representing \$96 trillion in assets under management, assesses how large companies are responding to climate change.



3.2.2.1 Cross-business action plans

Climate-aware initiatives put in place during the year

2019 was devoted to identifying actions likely to improve the Group's environmental performance. This approach mobilised all of VINCI's operational entities and identified the factors of progress and necessary transformative investments.

Group companies are currently defining action plans adapted to their business activities, with measures such as:

- -accelerated replacement of light and utility vehicle fleets by electric or less carbon-intensive vehicles;
- -upgrade of site machinery and heavy goods vehicles, promotion of eco-driving practices and installation of continuous fuel consumption tracking sensors;
- -diagnostic studies on the Group's buildings and remote sites with a view to introducing energy efficiency actions, such as renovation, LED relamping and temperature regulation;
- -replacement of heavy fuel oil and coal by natural gas or renewable-source gas in asphalt-mixing plants, and replacement of the fossil energy used in binder storage facilities by electricity;
- -installation of photovoltaic power plants for electricity self-consumption in airports;
- -consumption of electricity from renewable energy sources under power purchase agreements, or PPAs (direct contracts to buy renewable electricity), and purchases of guarantees of origin.

In addition to these measures, Group companies also implement actions specific to their businesses:

- -Since 2016, Eurovia has developed and implemented its "Environment and green growth" strategy, based on achieving high energy efficiency for each business segment in order to meet the Group's emissions reduction target for 2020. Solutions have also been developed to reduce emissions, such as the plant-based fuel Dertal G. This fuel is derived by distilling pine resin and can replace the fuel oil used at production facilities to dry asphalt mixes. The use of Dertal G is also in line with circular economy principles. In 2019, Eurovia produced 200,000 tonnes of asphalt mix with Dertal G fuel.
- -VINCI Construction has set a target to replace its remote sites hooked up to the power grid with more energy-efficient ones by 2030 (gradual transition from "traditional" category A and B sites to next-generation category C sites in wood).
- -In 2010, VINCI Autoroutes introduced no-stop electronic toll lanes, which enable users to reduce their fuel consumption and, in turn, the CO₂ emissions from motorway traffic.

3.2.2.2 Energy consumption and greenhouse gas emissions

Energy consumption

Group companies pay close attention to their energy consumption, the absolute value of which stood at 8,701,849 MWh in 2019. In relative terms, Group energy intensity totalled 189 MWh per million euros of revenue for the reporting period (by extrapolating the results for consumption to total revenue), compared with 190 MWh in 2018 and 201 MWh in 2017.

Total energy consumption, with change

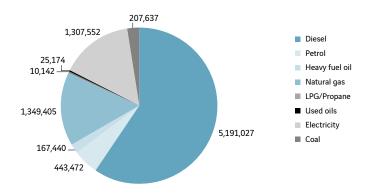
Consumption by business line (MWh)	Fossil fuels (*)	Electricity	Renewable energy	Total energy consumption in 2019	Consumption by business line (%)	Total energy consumption in 2018
Concessions	282,685	528,090	142,863	810,774	9.3%	600,259
VINCI Autoroutes	92,934	121,956	155	214,891	2.5%	226,072
VINCI Airports	178,399	387,128	142,429	565,527	6.5%	330,379
Other concessions	11,352	19,006	279	30,357	0.3%	43,807
Contracting	7,105,920	775,044	19,073	7,880,964	90.6%	7,677,091
VINCI Energies	1,113,916	103,618	12,470	1,217,535	14.0%	935,264
Eurovia	3,796,045	358,612	-	4,154,657	47.7%	3,930,776
VINCI Construction	2,195,959	312,813	6,603	2,508,772	28.8%	2,811,051
VINCI Immobilier and holding cos.	5,691	4,419	107	10,110	0.1%	4,692
Total	7,394,297	1,307,552	162,043	8,701,849	100.0%	8,282,042

(*) Fossil fuels: coal, diesel, petrol, heavy fuel oil, natural gas, LPG/propane, used oils.

Due to the industrial nature of its business, Eurovia accounts for a large proportion of the Group's total energy consumption. It was the first VINCI business line to set up an ambitious energy and CO₂ reduction plan, including improvements to the energy efficiency of coating plants, quarry equipment and worksite machines. The Eurovia business line also develops products and services that reduce energy consumption, such as the Tempera® warm mix process that enables energy savings of between 20% and 40%.

VINCI Concessions aims to achieve a 51% reduction in direct CO₂ emissions by 2030 compared with 2018 levels. It has defined an action plan on indirect emissions to encourage airlines and passengers to reduce their own CO2 emissions. In June 2019, VINCI Airports rallied all its European airports in signing up to the commitment to achieve net zero carbon emissions by 2050, a programme launched by Airports Council International Europe (ACI Europe). VINCI Airports is also stepping up its energy efficiency initiatives and low-carbon electricity strategy at all its airports in operation. In 2019, VINCI Airports continued its LED relamping campaign in terminals and on runways, including plane hangars, at the airports in Rennes, Dinard, Chambéry, Grenoble, Toulon and Clermont Ferrand.

Total energy consumption (MWh)



VINCI's leading source of CO₂ emissions is fuel consumption, especially diesel, due to the fleet of vehicles and worksite machines. Group entities have taken several steps to reduce this impact. In 2019, VINCI Autoroutes had 198 electric vehicles out of 1,314 vehicles in its fleet, or 15%. VINCI Autoroutes also had 209 charging stations on its network, including 90 ultra-fast charging stations and 107 fast charging stations. Soletanche Bachy has developed an eco-fuel kit for VINCI employees that spells out what they need to know and the possible measures to reduce the fuel consumption of worksite machines and company vehicles. The kit offers recommendations in several areas relating to worksites (generator size, start & stop systems, equipment replacement, fuel measurement, solar power at worksites, and more) as well as company cars (eco-driving, connected solutions, mobility plan, etc.), explaining the advantages of each action.

VINCI Autoroutes also provides its customers with tools and services to help them reduce their fuel consumption, such as no-stop electronic toll lanes and carpool parking facilities located near toll plazas. In 2019, 34 car parks providing over 2,700 parking spaces were reserved for carpooling, up from 31 car parks with 2,545 spaces in 2018.

Use of renewable energy

For a number of years, VINCI companies have been substantially increasing their purchases of electricity generated from renewable energy sources. In 2019, these purchases, at both fixed sites and worksites, totalled 162,042 MWh compared with 98,338 MWh in 2018. VINCI used 4,268 MWh of electricity generated by solar energy facilities at its sites, 9,795 MWh under PPAs and 147,980 MWh through purchases of guarantees of origin.

0 increase in use of renewable energy between 2018 and 2019

At the end of 2019, VINCI Airports began building a solar photovoltaic system for self-consumption with nominal power of 4.2 MWp. (megawatt-peak) at the Salvador airport in Brazil. This facility adds to the solar PV systems totalling 4.7 MWp in power to supply the airports in the Dominican Republic. Additionally, VINCI Airports signed contracts with low-carbon electricity suppliers providing guarantees of origin (London Gatwick Airport, the Lyon airports and the Santiago airport in Chile) and solar PPAs (Belfast International Airport). In 2019, the electricity consumed from solar PV systems for self-consumption (either directly generated or under a PPA) and with guarantees of origin represented more than 35% of all the electricity consumed for the consolidated scope of VINCI Airports.

Eurovia also increasingly uses renewable energy. A solar power plant opened on the site of a former quarry in Corsica in October 2019. The facility is equipped with 25,000 sq. metres of solar panels offering nearly 7.5 MWh in storage capacity.

Greenhouse gas emissions

The methodology used to determine the greenhouse gas (GHG) emissions of VINCI's businesses is based on the Group's environmental reporting data and measures ISO 14064 Scope 1 and 2 emissions. Scope 1 includes direct emissions from the use of fossil fuels (fixed sites, worksites and company vehicles), as well as non-energy emissions (Eurovia's lime plants). Scope 2 includes indirect emissions produced to make energy (mainly electricity) purchased and used at fixed sites and for projects. VINCI's CO₂ emissions in 2019 amounted to about 2.3 million tonnes based on the new methodology and updated emission factors. The Group's emissions are calculated using factors included in the Base Carbone® database administered by Ademe. The most recent factors used by VINCI date from 2016.

tCO₂eq emitted in 2019 (Scopes 1 and 2)

Greenhouse gas emissions (Scopes 1 and 2), with change

	Actual values (emissions updated based on new emission factors)	Actual values (emissions updated based on new emission factors)	2019/2018 change
(in tonnes of CO₂ equivalent)	2019	2018	
Concessions	191,105	122,330	56.2%
VINCI Autoroutes	27,645	29,422	-6.0%
VINCI Airports	158,283	87,056	+81.8%
Other concessions	5,177	5,852	-11.5%
Contracting	2,146,384	2,075,651	+3.4%
VINCI Energies	294,827	226,614	+30.1%
Eurovia	1,130,745	1,070,465	+5.6%
VINCI Construction	720,812	778,572	-7.4%
VINCI Immobilier and holding cos.	1,439	769	+87.1%
Total	2,338,928 🗹	2,198,750 🗹	+6.4%

Data extrapolated to cover 100% of VINCI's revenue – excluding acquisitions in 2019.
☑ Data checked to a level of reasonable assurance.

The Group's direct GHG emissions (Scopes 1 and 2) rose compared with 2018 using the methodology that applies the same emission factors from one year to the next to monitor the reduction target. This increase in emissions is due to the inclusion of new entities in the reporting scope. VINCI's carbon intensity stood at 51.0 tonnes of CO₂ equivalent per million euros of revenue in 2019, representing a 28.3% decrease since 2009 (71.1 tonnes of CO₂ equivalent). This means that the Group is on its way to meeting its 30% emissions reduction target by 2020 (50 tonnes of CO2 equivalent) (see the table "Progress on meeting the reduction target" below). In 2019, VINCI's emissions from electricity consumption (Scope 2) totalled 297,915 tonnes of CO2 equivalent using the location-based calculation method and 262,681 tonnes of CO2 equivalent using the market-based method (see "Note on the methods used in workforce-related, social and environmental reporting", page 258, for definitions of the location-based and market-based methods).

To broaden its range of low-CO2 solutions, VINCI continues to develop specific tools and carry out studies to better quantify and control GHG emissions resulting from its business (ISO Scopes 1, 2 and 3). In 2016, the Group began a study to create a methodology for measuring the Scope 3 emissions of its buildings business in all countries where it operates. The work carried out was applied to better quantifying Scope 3, especially through the use of a purpose-designed reporting tool for VINCI's buildings business. VINCI's long-term plan is to come up with new methodologies for assessing Scope 3 that account for the diversity of the Group's businesses. In addition to meeting the requirements of Article 173 of the French law on the energy transition for green growth, VINCI is looking for ways to better understand its carbon impact throughout the value chain and contribute to the objectives of the Paris Agreement signed in 2015.

Progress on meeting the reduction target

	2019	2018	2009
Total greenhouse gas emissions (tCO ₂ eq)	2,451,784	2,309,546	2,154,560
Carbon intensity (tonnes of CO₂ equivalent per million euros of revenue)	51.0	53.1	71.1

VINCI's carbon intensity, expressed in tonnes of CO2 equivalent per million euros of revenue, decreased 4% between 2018 and 2019 and 28.3% since 2009 (see "Note on the methods used in workforce-related, social and environmental reporting", page 258).

CO₂ emissions (Scopes 1, 2 and 3) of VINCI Concessions companies, customers and end users

	VINCI A	Autoro	VINCI Airports(*)	VINCI Airports (**)	
(in tonnes of CO₂ equivalent)	2019		2018	ACA 2019	ACA 2018
ISO Scope 1 and 2 emissions	27,645 (***)	\square	29,422 (***)	97,897	59,703
User/third-party emissions (Scope 3)	12,665,533		13,906,030 🗹	1,813,025	1,008,782 (++)

(*) Scope includes ANA airports, Lyon – Saint Exupéry Airport and London Gatwick Airport, year Y-1 emissions taken into account in the Airport Carbon Accreditation (ACA) of year Y. (**) Scope includes only ANA airports and Lyon – Saint Exupéry Airport, 2017 emissions taken into account in the Airport Carbon Accreditation of year Y. (***) Emissions based on the new methodology using Ademe's 2016 emission factors.

☑ Data checked to a level of reasonable assurance.

Since 2014, the GHG emissions produced by VINCI Autoroutes companies have been verified by a third party with a reasonable level of assurance, providing the highest level of transparency a company can achieve. The no-stop 30 km/hour electronic toll lanes lowered CO₂ emissions by 64,366 tonnes of CO₂ equivalent over the year (emissions updated based on new emission factors).

VINCI Airports operates 36 of the 293 airports with Airport Carbon Accreditation (ACA) certification in the world, including two Level 3 (Optimisation) airports, which reflects stakeholder engagement in carbon footprint reduction, and the calculation and verification of their carbon footprint for the three scopes (Kansai International and Osaka Itami airports), Lyon - Saint Exupéry Airport renewed its Level 3+ (Neutrality) certification. London Gatwick Airport also achieved Level 3+ in 2019. VINCI Airports has set a target to have all of its airports certified through this international Airport Carbon Accreditation programme launched by Airports Council International Europe (ACI Europe). In 2019, VINCI Airports calculated all emissions from the aircraft LTO (Landing and Takeoff) cycle for its ACA scope (excluding Brazil), which accounts for around 60% of Scope 3 emissions. LTO emissions totalled 1,514,565 tonnes of CO₂ equivalent in 2018 (emissions calculated over the same period as for environmental reporting).

Using its own internally developed tool, VINCI also measures the Scope 3 emissions of its buildings business for nearly all of its development and construction projects for residential and office buildings. This Excel tool was designed in 2016 with the independent consultancy Carbone 4 specialised in low-carbon strategy and climate change adaptation, and is also part of the Group's efforts to meet the requirements of Article 173 of the law on the energy transition for green growth. In 2019, VINCI's indirect emissions from its building projects totalled 1,447,365 tonnes of CO₂ equivalent (scope covering VINCI Construction France, VINCI Construction Dom Tom, VINCI Construction Europe Centrale and VINCI Immobilier).

3.2.2.3 Adapting to climate change

VINCI has adopted France's plan for adapting to climate change and takes a forward-looking approach. The Group plans in advance for any necessary changes to cities and buildings, by incorporating eco-design into its projects, an approach that studies the structure's whole life cycle. VINCI plays a central role in making new and existing structures more resistant to extreme weather events, ensuring long-term durability and providing innovative construction solutions. The Group carries out extensive research, both internally and through its scientific partnerships, in areas such as adapting neighbourhoods to heat waves, handling urban heat spots and flood prevention.

In November 2019, the annual seminar of lab recherche environnement (formerly the Eco-design of Buildings and Infrastructure Chair) was held in Marseille, taking as its theme the resilience of cities and infrastructure to climate change. At this day-long event, researchers connected with lab recherche environnement (from Mines ParisTech, École des Ponts ParisTech and AgroParisTech) and VINCI operational staff presented their work and projects on energy and the circular economy, nature in the city, and infrastructure.

Launched as part of the Leonard intrapreneurial programme, the startup Resallience is a design office that provides consulting, modelling and business strategy services to adapt projects and regions to climate change. In 2019, VINCI Concessions, with the help of Resallience, organised an event to raise awareness about the risks of climate change for the environment and sustainable development teams, along with programme management leaders from VINCI Airports. VINCI Airports implemented projects to raise levees along a 400-metre stretch and a secondary protection wall along 1,300 metres, relocate control rooms, and install flood barriers and airtight gates at Kansai International Airport in Japan to protect against extreme weather events in the region.

VINCI companies are developing expertise in technical improvements, notably to strengthen sea walls, based on scientific scenarios predicting a 50 cm rise in sea levels by 2050, according to the Intergovernmental Panel on Climate Change (IPCC).

In light of their growing frequency, extreme weather events are managed at each stage of a project. VINCI companies are often called on following extreme weather events to restore the normal operation of transport and energy infrastructure.

3.2.3 Solutions to combat climate change

Levers for reducing GHG emissions are mainly to be found in how structures are used by customers and end users: operations account for over 50% of lifetime emissions for a rail line, 90% for a building and over 95% for a motorway. VINCI is involved in national and international working groups (Association Bilan Carbone and Encord) to define industry standards for quantifying Scope 3 emissions.

• Integrating environmental management into solutions and operations

Reducing the CO₂ emissions of VINCI structures is part of an eco-design approach that takes into account the construction, operation and end-of-life phases to compare and select the most appropriate technologies during the design phase. The approach uses life cycle analysis (LCA) tools that measure CO2 emissions and other indicators such as water consumption, depletion of natural resources and impacts on human health. These tools allow the Group to ensure that CO2 reductions do not generate other consequences at any point in the life cycle of its structures. LCA tools are developed within the framework of lab recherche environnement, and are used in numerous subsidiaries. The CO2NCERNED methodology conceived by VINCI to measure a project's carbon footprint is deployed across all Group business lines to compare construction options with "traditional" solutions. The CO2NCERNED carbon assessment tool calculates the

GHG emissions of a worksite - construction, operation and use - covering six emissions categories: supply chain, freight transport, internal energy, depreciation, travel and waste. The assessment is based on an Excel spreadsheet developed with the strategy and environmental consultancy I Care & Consult and is Bilan Carbone® certified by the Association Bilan Carbone. This certification is valid until 2021. CO₂NCERNED has already been used for projects in responding to calls for tender (the New Coastal Highway on Reunion Island, Véna Bridge in south-eastern France, etc.) to add environmental variants to the basic project solution.

VINCI is developing new systems for both housing and offices, drawing on the expertise of VINCI Construction to minimise energy losses through the building shell and on that of VINCI Energies to install innovative equipment such as all-air heating using the Green Floor process.

VINCI Construction France is taking an active role in co-developing the new building regulations set to pass in 2020 that will take into account all of a residential or commercial building's impacts throughout its life cycle using the Énergie Positive & Réduction Carbone, or E+C-, label. This new label covers the entire life cycle of a building, from material manufacturing through to deconstruction, over a theoretical life span of 50 years. In addition to calculating the carbon impact, energy consumption at each of these stages will be tracked. Every player will have to determine the best possible balance between energy performance and greenhouse gas emissions reduction. Test projects led as part of this experiment include the Origine & Nouvelle Vague mixed-use urban development in Nanterre near Paris, the housing worksite on Rue Obert in Wambrechies in northern France, the La Canopée residence in Nantes to the west, and the Bastide Bondoux office buildings in Chaponost in the east of the country.

. Developing service offers

Omexom, the VINCI Energies brand specialised in electrical power generation, transmission, transformation and distribution, takes part in developing renewable energy, contributing to the installation of more than 20% of the wind power in France and 56% of that in Morocco. In 2019, Omexom continued to expand its international operations. For example in Brazil's Amazon region, the company installed mini power plants (solar panels and batteries) with a generation capacity of 1.8 MW to supply electricity to communities in remote rural areas. Omexom also installed and commissioned eight solar power plants, for total nominal capacity of 25 MWp, to provide remote regions in Senegal with electricity.

VINCI Energies companies have developed significant expertise in supporting local government authorities with the implementation of energy performance contracts (EPCs) for cities, through actions such as optimising public lighting, monitoring building energy consumption and installing smart grids. In 2019, VINCI Energies won 17 new EPCs, for a total of 129 currently in effect.

VINCI Energies' activities in facilities management are using their expertise in areas such as energy diagnostics and audits, monitoring and optimisation work to develop EPC solutions for their customers offered through a dedicated energy monitoring structure called Hub Energy and GreenAffair, a VINCI Energies sustainable development consulting and engineering company.

VINCI Construction shows building occupants how they can consume less energy through its Oxygen® solution, an eco-commitment that guarantees energy performance and assistance. To date, about 100 design-build and property development projects have been awarded the label. VINCI Construction France and the facilities management companies of VINCI Energies continued to develop the solution in 2019, focusing on indoor air quality. VINCI Construction is also developing technical solutions to industrialise construction and optimise the installation of onshore and offshore wind farms.

Within the framework of lab recherche environnement, Mines ParisTech has developed an energy and environmental performance simulation tool, NovaEquer, to be used on a neighbourhood-wide scale. The startup Kocliko, which grew out of a lab recherche environnement project, has created a platform that uses dynamic energy simulation and artificial intelligence to assess a building's energy consumption more accurately based on user behaviour or weather averages. The system then measures and checks performance once the building is completed or renovated.

Eurovia continues to work on the development of Power Road®, an innovative solution that captures solar energy, stores it in geothermal probes and releases it to de-ice the road network or heat nearby buildings.

3.3 Circular economy

3.3.1 Supporting the circular economy

Sustainable resource and waste management is a fundamental component of VINCI's environmental ambition. Focusing on Ademe's three key areas of action (supply from economic stakeholders, consumer demand and behaviour, and waste management) and seven pillars, VINCI's businesses aim to incorporate circular economy principles into each step in the value chain through three main concepts: eco-design, a systemic and regional approach, and inclusive and collaborative methods.

Over the next few years, the environmental ambition will involve further development of these concepts across all activities with a response at three levels:

- -promoting construction techniques and materials that economise on natural resources, by taking a responsible sourcing approach;
- -improving waste sorting and recovery;
- -limiting extraction of virgin materials in favour of recycled materials.

At VINCI business lines, circular economy issues are addressed through local actions and initiatives. To support this, a circular economy community of experts from VINCI divisions was formed to share best practices, monitor regulatory compliance and foster the adoption of common, cross-business practices.

3.3.2 Circular economy actions

3.3.2.1 Responsible sourcing

For VINCI, raw materials sourcing is a central issue in implementing a circular economy approach. In the Concessions business, most raw materials consumption is monitored and consolidated, for example the consumption of asphalt mix to maintain motorways in France. In 2019, VINCI Autoroutes used 420,540 tonnes of recycled mix out of a total of 1,726,867 tonnes for motorway maintenance. Furthermore, a total of 22,633 tonnes of de-icing salt was used, as against 42,032 tonnes in 2018. The larger volume in the previous year was due to harsher weather conditions in the first quarter of 2018 and the resulting enhanced preventive measures to guarantee user safety. To promote continuous dialogue throughout the value chain, in 2019 VINCI Airports prepared a set of environmental clauses (e.g. on single-use plastics) to include in contracts with the third parties that serve its airports. The clauses are specifically adapted to each business

In the Contracting business, raw materials purchasing is decentralised, with purchases generally not consolidated at Group level. Efforts to manage raw materials consumption include purchasing reused, reconditioned and recycled materials that have equivalent performance to new materials, and sourcing local products.

In 2019, the different VINCI entities concerned came together to study circular economy issues, with the aim of developing Group-wide tools or initiatives that can facilitate the operational implementation of the circular economy model throughout the project life cycle. The Group continues to focus on the need to plan how to integrate reused or recycled materials in projects and to recycle the types of waste produced by construction activities. An intrapreneurial initiative was launched via the Leonard platform to promote reuse in VINCI's activities. VINCI Construction France set up a partnership with the firm Karibati to collect feedback on worksites that use biosourced materials.

Using low- and very low-carbon concrete also helps reduce environmental impacts. The subsidiaries of VINCI Construction France have developed techniques to produce concrete that reduces greenhouse gas (GHG) emissions by 40% compared with the commonly used CEM II. In partnership with the supplier Ecocem, an alkali activated slag concrete currently under testing was used in posts at the worksite for l'archipel, VINCI's future headquarters in Nanterre, near Paris. A subsidiary of VINCI Construction France was part of the first experiment to use hempcrete (a biocomposite made with hemp hurds, the wooden fibres from the plant's stalk, combined with water and lime) at a worksite for the Lucie Aubrac middle school project in Montévrain in the Greater Paris area.

A growing number of worksites have also begun reusing materials, especially for large-scale refurbishments. VINCI Construction France companies are able to rally their expertise to overcome the barriers to reusing materials. For example, in an office building restructuring project in Levallois Perret in the Greater Paris area, VINCI Construction France has developed a reuse programme to salvage nine types of deconstruction materials, both on site (e.g. for false flooring and ceilings) and off site.

3.3.2.2 Improving waste sorting and recovery

Together with responsible sourcing, Group subsidiaries work on producing less waste at the source, sorting waste and recovering waste. Waste management is important to both Contracting entities - which deal mainly with construction site waste - and Concessions entities, which have to dispose of their users' waste at airports, motorways, etc. The Group's subsidiaries implement waste management plans at their worksites in accordance with local waste management procedures and systems. VINCI makes an annual count of the amounts of waste it generates and recovers.

Hazardous and non-hazardous waste

		2019						2018			
(in tonnes)	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	VINCI Construction (*)	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	VINCI Construction (**)	
Non-hazardous waste produced (customers + operations)	20,925	37,093	11,844	462,886	1,040,380	22,885	30,630	19,702	452,995	1,201,212	
Hazardous waste produced (customers + operations)	665	1,053	92	4,986	38,385	897	748	21	4,514	30,250	

Waste is monitored at all Concessions businesses, as well as at some of the Contracting businesses. At VINCI Airports, the increase in 2019 is due to the inclusion of new airports in the reporting scope.

Waste from VINCI Autoroutes' operations, once sorted, is delivered to external recovery and treatment facilities; 79% of VINCI Autoroutes waste was recovered in 2019 as in 2018. As for waste produced by users, all of the rest areas on the network are equipped with sorting bins. The staff at VINCI Autoroutes emphasise awareness and guidance campaigns to fight littering and encourage users to sort their waste, especially through summertime activities and events along motorways.

of waste recovered by VINCI's Concessions businesses in 2019

^(*) Scope includes VINCI Construction UK and VINCI Construction Grands Projets.
(**) Scope is limited to VINCI Construction UK and 42% of the revenue of VINCI Construction Grands Projets.

In June 2018, stadium operators Consortium Stade de France, MMArena in Le Mans, Allianz Riviera in Nice and Matmut Atlantique in Bordeaux signed the Eco-responsible Commitments Charter of Major Sports Facility Operators and Host Venues, co-written with the French Ministry of Sports and WWF. The charter is comprised of 15 commitments to meet by 2020, including one on waste management. Signatories pledged to cut their waste 15% by 2020, to increase waste reuse, recycling and recovery by 40%, and to treat 60% of food waste using biowaste methods.

With its extensive international operations, VINCI Concessions must find alternatives to landfills for treating waste. That is why VINCI Concessions has set a target of zero waste to landfill by 2030, by focusing on the following actions:

- reducing waste at the source;
- improving waste sorting to recover waste more efficiently, with priority on materials recovery over energy recovery;
- building on-site sorting facilities when not available locally;
- installing on-site treatment systems (incinerators, autoclaves) when no other solution is available locally.

Concerning this last point, a collaboration agreement was signed with Dominicana Limpia in March 2019 to recover 160 tonnes of recyclable waste produced by Las Américas Airport in the Dominican Republic. The sorting centre opened in October. This partnership is supported by programmes to raise the awareness of airport users, passengers, employees and subcontractors about waste reduction and sorting. A sorting centre was installed at the Salvador airport in Brazil to meet the target of zero waste to landfill by 2020. As part of a programme to prevent waste dumping, several awareness actions were led in Peru along the motorway under concession, especially on plastics recycling.

In the Contracting businesses, on top of reducing the amount of waste produced, objectives include on-site waste sorting, traceability, as well as improvements of reuse and reconditioning actions and in the recovery rate for all categories of waste. In France, the Revalo programme was launched by VINCI Construction France and is supported by Ademe and France's Ministry for the Ecological and Inclusive Transition. This programme increases materials recovery while reducing the carbon impact of worksites by optimising waste sorting. In addition, the Optidéchets platform is used to improve waste management and prevention by applying key indicators (sorting rates, cost, average volume, density, etc.) throughout an organisation and provides each worksite with a regulatory registry and a report for its customers. This solution has been implemented at every VINCI Construction France building worksite in the Paris region. The waste recovery rate is 80%, exceeding the French and European regulatory requirement of 70%. As a founding member of Circolab, VINCI Construction France continues to work with this organisation, focused on educating stakeholders about waste recovery. Circolab aims to promote reuse in the property industry, encourage synergies, foster stakeholder engagement and tighten regulations. Its work focuses on defining new indicators and reducing the amount of waste to landfill.

3.3.2.3 Recycling of materials

Recycling materials has been a priority at Eurovia for the past 20 years. This issue has garnered increasing interest from customers in the development of innovative products and processes that use smaller amounts of natural resources and energy. Eurovia now has 150 platforms that recycle most of the waste produced by worksites. Founded in 2018, Mat'ild, a company whose French acronym refers to materials, innovation, logistics and waste, is pursuing its expansion within Eurovia's southern delegation. It operates platforms, such as professional waste centres, and sorting and recovery centres for non-inert and non-hazardous waste from deconstruction sites. This activity is part of Eurovia's circular economy programme. By integrating the collection and transformation of salvageable materials at Eurovia's quarrying sites, these platforms act as recycling centres that serve the local area.

Waste recycling and recovery at Eurovia, with change

	World			France		
	2019	2018	2019/2018 change	2019	2018	2019/2018 change
Percentage of asphalt mix made with reclaimed asphalt pavement	18.7	16.1	+16.1%	14.8	14.8	0.0%
Production of recycled material (in millions of tonnes)	11.0	10.6	+3.8%	7.0	6.9	+1.4%
Total recycled material as a percentage of total aggregate production	13.3	10.4	+27.9%	14.7	11.2	+31.3%

After opening a section of the first fully recycled road, Eurovia moved forward with several experiments conducted on the TRX100% continuous asphalt plant. The processes tested achieved high recycling rates, up to 70% on country road worksites. By raising industry standards on recycling for any type of road infrastructure, Eurovia is fully engaged in meeting the Group's goal to develop recycling solutions for construction materials.

recycled aggregate mix produced in 2019 out of Eurovia's total production

3.3.3 Circular economy solutions

Above and beyond applying circular economy principles within their scope, Group companies are also designing more circular economy solutions for customers at every stage: development of biosourced materials, waste reduction and sorting, recovery, and so forth.

Many solutions are being developed to adopt responsible sourcing practices. Arbonis is a subsidiary of VINCI Construction France specialised in the design and construction of timber buildings. In 2019, the company was involved in major operations in France to build schools and logistics platforms, and to perform energy retrofits in housing developments. Arbonis draws on the EnergieSprong approach, a Dutch initiative that coordinates renovation activities to enable home energy retrofits on a large scale. By developing mass production through standards that can be industrialised, therefore reducing costs, this approach sets Arbonis apart on the renovation market. The biosourced, prefabricated materials used meet the criteria of the certifications and labels that appeal to customers, and the retrofit is completed in a short time frame, with a minimum impact on occupants.

Innovative projects developed through Leonard, VINCI's forward-looking innovation platform, include Waste Marketplace, a digital solution for managing worksite waste. Not only can this tool be used to coordinate the disposal of this waste more quickly and efficiently, Waste Marketplace also supports companies in implementing custom solutions to handle special waste through a network of waste treatment specialists and industrial users of secondary raw materials.

Industrial and territorial ecology, one of the circular economy pillars defined by Ademe, the French environment and energy management agency, applies to several Group businesses. Eurovia's Granulat+ programme - recognised since 2013 by France's Ministry of the Environment as a leading initiative in the circular economy - aims to recover all the resources needed to produce aggregates used in construction. Based on the combined efforts of quarry managers, local waste producers and raw materials users, Granulat+ has been rolled out in southern France, the Greater Paris region and Normandy.

At the VivaTech 2019 exhibition, VINCI Airports and VINCI Energies launched a challenge to apply automation and image recognition to waste recycling, in order to improve waste management at airport security checkpoints. The selected winner was the startup Greedy Station, a French company in south-eastern France specialised in recycling solutions. The companies joined forces to develop a smart sorting machine featuring optical sensors and image recognition technology. A pilot project to test the solution is being launched at the Lisbon airport, in partnership with VINCI Energies.

3.4 **Natural environments**

3.4.1 Protecting natural environments

In addition to its objective of adapting to climate change and supporting the circular economy, the Group pledges to take action to protect natural environments. In this effort, VINCI has identified three areas of response to issues affecting water, biodiversity and local pollution

- assess and avoid noise pollution and environmental incidents in the Group's business activities;
- reduce water consumption, especially in areas of water stress;
- initiate a programme to achieve a zero net loss of biodiversity.

The Biodiversity Task Force, comprised of about 40 ecology experts and environment managers from VINCI's different activities, is responsible for the Group's governance of biodiversity. It is primarily responsible for monitoring the regulatory environment, developing scientific expertise, analysing risks, promoting initiatives and sharing best practices. The task force encourages organisations, engineering and design departments, government authority representatives and companies to transmit information on what they do and the tools they use. The Group has developed a network of more than 500 biodiversity coordinators who work on issues affecting all business lines. In 2018, VINCI joined some 60 French business leaders in the voluntary initiative act4nature, which aims to integrate biodiversity issues into all business strategies and models, and at every level in an organisation. Its commitments cover the improvement and dissemination of knowledge and best practices in biodiversity conservation, employee training and awareness, the development of new solutions and the strengthening of partnerships.

Several Group companies with long-cycle business activities that directly influence natural environments - notably those involved in the concession-construction of transport infrastructure (motorways, airports), earthworks and quarries - have introduced their own specially adapted biodiversity programme.

Based on the principle of avoiding and reducing impacts on natural environments or, in the last resort, offsetting them, measures from these programmes are developed and applied in partnership with the most appropriate stakeholders, depending on the project, location, species and ecosystem. Across all VINCI companies, more than 640 partnership agreements on biodiversity issues with non-profit organisations, research centres and engineering and design firms were signed or in effect in 2019.

3.4.2 Actions to protect natural environments

3.4.2.1 Pollution and incidents

VINCI companies work to avoid or reduce as much as possible the impact of their business activities on the environment. This commitment is adapted to take into account the local context, with appropriate environmental management systems. This policy of preventing impacts is also covered in the Group's duty of vigilance plan (see page 255). Along with water and biodiversity conservation (see the measures set out in paragraphs 3.4.2.2 and 3.4.2.3), Group businesses take steps to reduce noise and light pollution and to improve air quality.

· Air quality

VINCI companies focus on issues concerning both indoor and outdoor air quality. For Contracting companies, this area covers several aspects and requires a range of appropriate measures: limiting greenhouse gas emissions, reduction of nitrogen oxides in road surfaces, protecting indoor air quality in new and existing buildings in operation, etc. In Concessions, especially at VINCI Airports and VINCI Autoroutes, most air emissions are generated by users of cars, trucks, aircraft, etc. The entities concerned continuously implement actions to reduce these emissions (see "Greenhouse gas emissions" in paragraph 3.2.2.2, page 228).

Group companies also encourage reducing emissions from their own vehicles generated during their business activities. For instance, Spiecapag (Entrepose) has introduced an in-vehicle monitoring system (IVMS). Along with improving safety, the IVMS effectively manages fuel use for the project, for an average reduction in fuel consumption of 15%.

Noise pollution

All VINCI projects are subject to a preliminary noise study to limit the pollution generated by urban construction sites, motorway traffic and so forth. VINCI companies systematically offer technical solutions during the construction phase, including changes to a motorway route, erecting noise barriers and embankments, and using special low-noise road surfacing materials such as Eurovia's Viaphone®. This quiet, fine-graded asphalt concrete substantially reduces road traffic noise, enhancing acoustic comfort. Meanwhile, VINCI Airports takes measures to reduce noise pollution as much as possible for local residents at all of its airports in operation. These measures include a system that continuously monitors noise and flight paths, noise insulation for nearby housing, and studies and action plans to reduce noise. Performance is measured by the monitoring system and is available online, as are flight paths. Initiatives supporting dialogue and consultation have also been taken by LISEA for the South Europe Atlantic high-speed rail line, with numerous meetings between local residents and mayors of municipalities affected by the project.

VINCI entities also work to reduce noise caused by machines used on worksites. Soletanche Bachy (Soletanche Freyssinet) has developed a partnership with Cetim, a French technical centre for mechanical industry, to find ways to reduce noise from using machines and equipment.

Noise levels on motorways in France are monitored regularly for their noise footprint to enable VINCI's motorway concession companies to identify and absorb noise black spots. Homes and other buildings that qualify are protected individually using noise insulation in their facades, or are protected at the noise source by noise barriers or embankments planted with shrubs or trees. Since 2010, 7,754 homes have been protected from noise on VINCI Autoroutes motorways.

Light pollution

To limit light pollution caused by the operation of infrastructure, opaque screens can be installed along motorways and adapted lighting systems (light directed only towards the ground) set up at worksites and concessions in operation. Citeos (VINCI Energies) has incorporated measures into its contracts for operating public lighting networks. These measures include efficient anti-light pollution equipment, smart lighting systems, automatic shutdown of certain light sources, and consideration for "dark corridors" (reservoirs and corridors suitable for nocturnal species) provided for in lighting plans to reduce the impact on biodiversity.

3.4.2.2 Water and aquatic environments

The Group's water strategy is based on its environmental policy. It calls for including water consumption and pollution prevention in risk analyses, measuring and reducing water consumption resulting from its business activities and products, and protecting aguatic environments and their ecosystems.

VINCI answered the CDP Water Information Request for the eighth time, to be once again among the 2,435 companies worldwide capable of replying to the information request supported by 525 global investors. The Group achieved a score of B- for its performance in 2018, better than that of many other companies in its sector for water management. A marine and inland waterway works Pivot Club identifies expertise and designs new, specific offerings that account for approximately 5% of VINCI Construction's revenue. These offerings are mainly available through VINCI Construction Maritime et Fluvial, which has several dredging, undersea rock excavation and underwater works projects in progress.

Group companies monitor water resources particularly carefully. Subsidiaries have adopted a number of specific initiatives to reduce their consumption. Leak detection programmes have been implemented at VINCI Autoroutes. As part of the Group's new environmental ambition, VINCI Concessions has set a target to cut water consumption per unit of traffic in half. VINCI Construction has introduced a wastewater recycling policy in France. About 100 closed-loop concrete mixer washing stations have significantly reduced water consumption at worksites

Consumption of water purchased (in cubic metres), with change

	2019	2018	Change
Concessions	3,488,832	2,778,392	+25.6%
VINCI Autoroutes	722,463	811,742	-4.8%
VINCI Airports	2,650,466	1,870,792	+41.7%
Other concessions	65,903	95,858	-31.2%
Contracting	9,546,134	7,839,213	+21.8%
VINCI Energies	442,807	326,170	+35.8%
Eurovia	3,272,993	3,085,122	+6.1%
VINCI Construction	5,830,334	4,427,921	+31.7%
VINCI Immobilier	105,733	4,123	+2,464.5%
Total	13,140,699	10,621,728	+23.7%

In the Contracting business, the marked variation in consumption is explained by the significant differences in the types of project from one year to the next. Consumption rose for the Concessions business, partly due to the inclusion of new airport concessions.

VINCI companies continuously improve their monitoring of water consumption by consolidating the monitoring of consumption of water from boreholes and of water pumped directly from the natural environment. But measuring the consumption of water purchased or taken directly from the environment by drilling or pumping remains complex. Measurements must be combined with a qualitative analysis to assess the actual impact of water use and how it returns to the natural environment. By way of example, earthworks activities use water mainly for hosing down work areas to reduce the amount of dust produced. In Africa, water is often pumped using electric generators installed near villages so that communities can have easy access to water. The water itself undergoes no transformation whatsoever. It either evaporates or runs back to the water table without being polluted. Rainwater is collected at Eurovia sites for use in sprinkler systems. For foundations operations (tunnels, metro lines), the underground water is pumped before returning into the water table, unpolluted, after analysis and treatment if needed. These examples show the complexity of measuring consumption given the diversity of VINCI's businesses.

Consumption of water taken directly from the natural environment (in cubic metres)

	2019					20	18	
	VINCI Autoroutes	VINCI Airports	Other concessions	Total Concessions	VINCI Autoroutes	VINCI Airports	Other concessions	Total Concessions
Water from boreholes and taken directly from the natural environment	301,054	226,135	2,824	530,013	399,454	197,954	3,376	600,784

Conserving water resources also involves protecting wetlands. For example, of all the VINCI motorways in service in France, 79.2% have been equipped with either natural water protection systems or engineering structures that address potential problems to prevent accidental pollution in the surrounding natural environment.

The life cycle analysis tools used by VINCI provide a detailed assessment of the water footprint of specific neighbourhoods, with particular emphasis given to ground permeability, rainwater harvesting and wastewater treatment.

3.4.2.3 Biodiversity conservation

• Conserving biodiversity at concessions

Operators of linear infrastructure concessions are primarily concerned with limiting the fragmentation of natural habitats during construction work, focusing their efforts on the ecological transparency of their infrastructure, the reversibility of barriers and the restoration of sensitive environments and ecological connectivity. This includes installing wildlife crossings, making improvements to hydraulic structures, restoring and enhancing sites of ecological interest, redeveloping slopes, sustainable roadside grass mowing, and so on. Several wildlife crossings opened in 2019 along VINCI Autoroutes motorways. Partnerships were then developed with local organisations to implement environmental monitoring methods for these structures. As they design and operate infrastructure over the long term, concession companies can develop expertise and use their network under concession for field surveys and educational initiatives. For example, government agencies enlisted VINCI Autoroutes and its local partners on the A89 to study several structures along the Allier River, using radio-tracking to measure the effectiveness of the fishways built. These studies are part of conservation efforts to protect the Atlantic salmon, a highly endangered migratory species. VINCI Autoroutes also works to keep users informed about biodiversity conservation at the environmental awareness spaces it sets up at rest areas along summer routes, and invited children from nearby schools to visit wildlife crossing construction sites.

66% reduction in the consumption of phytosanitary products at VINCI Autoroutes since 2008

Wildlife crossings and fenced sections on the motorways of VINCI Autoroutes companies

	2019	2018	2017
Crossings for small and large wildlife (in number)	957	956	883
Fenced sections (in km)	8,765	8,730	8,651

VINCI Autoroutes has also taken steps to reduce the impact of the operation phase of motorways on natural environments. For example, the considerable efforts engaged to limit the use of phytosanitary products have led to a 66% decrease in their use since 2008. The target to achieve zero use of phytosanitary products also applies at VINCI Airports, which has turned to alternative solutions such as thermal or mechanical control methods for plant protection. In 2018, VINCI Airports also signed a partnership with France's national beekeepers association (Unaf) to show that, if managed properly, land surrounding airports can provide a particularly favourable habitat for pollinators. These initiatives come under a global aim to protect natural environments and are supplemented with an assessment of biodiversity issues at each airport. These assessments can then be applied to adapt action plans to the local context, addressing wildlife hazards in particular.

For example, a whole region-wide network of partners - government services, environmental organisations, scientific partners, chambers of agriculture, hunting and fishing federations, and so on - is involved in the emblematic South Europe Atlantic high-speed rail line project. They bring together the ecological and local expertise necessary to make sure environmental measures are implemented properly along the entire line. The LISEA environmental observatory monitors all environmental measures throughout the duration of the concession and in every region crossed by the South Europe Atlantic high-speed rail line. This provides an overarching perspective of the steps taken to support the environment and address the impact of the infrastructure.

Conserving biodiversity in guarries

The main biodiversity issue faced by Eurovia is the production of aggregates, either in connection with the operation of quarry sites or during the site rehabilitation phase. For example, extraction activities are likely to have a lasting impact on the land's biological balance. But new environments can be created during the rehabilitation phase, bringing back new, even protected, species. To assess the effectiveness of measures that are implemented at quarry sites to protect species, initial assessments are now improved by taking inventories while the sites are in operation. Biodiversity is even more carefully taken into account during the rehabilitation of quarries, a phase essential for remediating the site so that it regains its original ecological function.

Eurovia's partnership established in 2012 with PatriNat, a collaborative research and education entity focusing on natural heritage, was renewed in 2019. This partnership has resulted in a methodology used to analyse natural environments and a study on the balance of plant and animal life at each site. Using this approach, Eurovia sites can be mapped based on their natural environment and species living there. Measures can then be determined to conserve and provide a favourable environment for new plant and animal species. Based on an Ecological Quality Indicator (IQE) designed by France's Natural History Museum (MNHN), the method has been tested on about 30 sites since the partnership was founded.

Eurovia's biodiversity indicators specific to quarries

	2019	2018	2017
Quarries that have set up a CLCS (*)	40%	44%	39%
Quarries that have formed partnerships with local naturalists	18%	18%	35%
Number of data on flora and fauna sent to the INPN (**) by Eurovia quarries	13,214	12,867	12,120

• Combating the loss of land and maintaining habitats

Combating the loss of natural and agricultural land and maintaining an attractive habitat for the species living there are factors taken into consideration before project implementation and throughout the operating life of infrastructure. More detailed study goes into projects with a significant or long-term impact on the land, such as linear infrastructure or Eurovia's quarries. Aware of the impact of their businesses, VINCI entities may go a step further than complying with measures required by regulations on ecological compensation. Some Group companies specialise in ecological engineering, including Eurovia's subsidiaries Cognac TP, GC3E and Sethy, as well as Equo Vivo, the new brand developed by VINCI Construction Terrassement. These subsidiaries take measures to restore the ecological balance of land and environments affected by construction works, such as planting native species, combating invasive non-native species, and restoring wetlands and waterways with diminished ecological functions.

VINCI Immobilier has developed expertise in establishing partnerships with land remediation experts, which is useful in development projects that require a global environmental approach due to their size or type of land. In early 2019, the company acquired a portfolio of industrial sites from Engie, in partnership with Brownfields. Once these sites have been restored, VINCI Immobilier and Brownfields will develop property programmes, mainly involving residential properties. Taking a global approach to property development helps limit energy consumption, encourages non-motorised mobility, promotes social integration and creates new living spaces.

In 2018, VINCI extended its partnership with the Institute for Sustainable Development and International Relations (IDDRI). Research focused on the loss of natural land, more specifically through the construction of business and retail parks.

3.4.3 Solutions for protecting natural environments

In addition to reducing the impact of their activities on biodiversity and natural environments, Group companies develop protection solutions to address a broad range of issues and at varying scales.

Reducing pollution

To improve air quality when treating road surfaces, Eurovia has developed NOxer®, an innovative air pollution treatment process that removes nitrogen oxides. The process removes between 15% and 25% of total air pollution and eliminates up to 75% of nitrogen oxides for local residents. The solution has been adapted and combined with noise barriers to abate noise pollution as well.

VINCI companies also develop solutions to measure and control urban air quality for government organisations. For example, the VINCI Energies company Citeos develops its solutions under global energy performance contracts, such as in Marignane in the south of France. The company will develop a plan to reduce light pollution in the city, by 30% in inhabited areas, by creating a lighting environment that respects biodiversity. With the remote management of each light point and the use of LED lighting, the target of 70% energy savings is achievable within 10 years.

Protecting water resources

Some subsidiaries have created specific products and services to conserve fresh water resources. VINCI Construction Terrassement has thus developed Aqua-eco, a new technology able to reduce by up to 40% the amount of water used for hosing down civil engineering project worksites. VINCI Construction Grands Projets has set up Water Management International, a structure designed to manage and optimise drinking water systems outside France. Research on urban rainwater management carried out as part of the activities of VINCI and ParisTech's lab recherche environnement came up with several solutions that could be applied to urban agriculture and the creation of green roofs. As a result, 65% of rainwater runoff can be collected in planters installed on roofs.

• Biodiversity conservation

Expertise in ecological engineering is growing at VINCI entities. Extract, a subsidiary of VINCI Construction France, is the French leader in the treatment of sediment. Its polluted site and soil remediation activities are primarily carried out at its recovery facility near Paris, which can treat up to about 250,000 tonnes of materials per year. Its operations align perfectly with the circular economy and improved use of land

^(*) Local committee for consultation and monitoring. (**) Inventaire National du Patrimoine Naturel (national inventory of natural heritage).

With the Equo Vivo brand, VINCI Construction Terrassement brings together its technical expertise, know-how and experience in environmental improvement projects to better serve its customers. Equo Vivo services cover three areas: ecological connectivity, renaturing of aquatic environments and wetlands (streams, marshes, ponds, etc.), and plant-based engineering.

Along with the growing development of market solutions and tools, the Group is involved in many partnerships to promote biodiversity. The LISEA Biodiversity Foundation, set up at the end of 2012 with a budget of €5 million for the period 2012-2020, helps to finance local projects submitted by non-profit organisations, companies or research centres located in any of the six French administrative departments crossed by the Tours-Bordeaux rail line: Indre et Loire, Vienne, Deux Sevres, Charente, Charente Maritime and Gironde.

Since 2014, VINCI has been part of the Strategic Guidance Council at the Foundation for Research on Biodiversity (FRB), whose members (non-profit organisations, research centres, government services, businesses, etc.) work to support dialogue and exchange on best practices to address biodiversity issues.

As part of the research activities of lab recherche environnement, students at AgroParisTech have developed a number of tools and solutions designed to conserve biodiversity in the urban environment. For example, Biodi(V)strict® is a diagnostic and decision-making tool used to measure the biodiversity potential of an urban or peri-urban development project. Also, Urbalia, created in 2017, is the culmination of a unique partnership initiated by AgroParisTech and VINCI in connection with lab recherche environnement to promote biodiversity and urban agriculture. Urbalia supports property professionals in creating spaces that strengthen biodiversity and integrate local agriculture. These spaces are not only more resilient to climate change, but also provide a better setting for people to live in, along with numerous services (urban cooling, rainwater management, local production, and health and well-being areas). Having earned the BiodiverCity® label and Effinature certification, in 2019 Urbalia assisted the Agro Paris-Saclay Campus project in Palaiseau outside Paris as well as a 32-unit housing programme in Montreuil to the east of the capital in obtaining widely recognised certifications.

4. Duty of vigilance plan

This section of the annual report aims to satisfy the requirements of French law no. 2017-399 on the duty of vigilance of parent companies and subcontracting companies to identify risks and prevent severe impacts on human rights and fundamental freedoms, on people's health and safety and on the environment, resulting from the activities of the company, those of its subsidiaries or those of the subcontractors or suppliers with whom they have an established business relationship.

4.1 The Group's organisation, business activities and value chain

The objective of VINCI's activities is all-round performance, which in addition to economic and financial performance includes attaining social and environmental goals. This is the only possible vision for a regional contributor whose activities and constructions are designed for the long term and have a major impact on local communities. Improving the local living environment is a goal shared by all Group companies, which strive to:

- contribute to projects in the public interest that benefit local populations;
- proactively offer innovative solutions that best meet customers' needs;
- work collaboratively by engaging all stakeholders in a shared project.

Due to the very nature and diversity of its businesses and activities, VINCI is first and foremost a multi-local Group. Regardless of whether its companies develop construction projects or infrastructure concessions, they establish local operations, produce locally with mainly local management, partners and staff, for local use in local conditions. VINCI is made up of a network of companies, often small or medium-sized, that have long-established roots in their operating regions and that strive to contribute positively to their development. Conscious of its commitments to regional development, the Group works to stimulate local entrepreneurship.

