

An aerial photograph of a multi-lane bridge crossing a wide river. The riverbanks are lined with trees, some of which are bare, suggesting a cooler season. The sky is clear and blue.

**INNOVATION
FOR A
SUSTAINABLE
WORLD**



E. Workforce-related, environmental and social information

This report is compiled pursuant to Articles L.225-102-1, R.225-104 and R.225-105 of the French Commercial Code, as well as French Order no. 2017-1180 and Decree no. 2017-1265. It is based on such international reporting guidelines and standards as the Global Reporting Initiative (see the cross-reference table on page 331) and ISO 26000. It has also been prepared in compliance with the decree on companies' disclosure requirements for social and environmental data, and presents the duty of vigilance measures implemented by VINCI.

It contains four sections:

- workforce-related responsibility (pages 180 to 191);
- environment (pages 192 to 202);
- social information (pages 203 to 215);
- duty of vigilance plan (pages 215 and 216).

VINCI's sustainable development policy and strategy are presented on pages 34 to 43 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. VINCI requests one of its Statutory Auditors to issue an opinion on the completeness and sincerity of its workforce-related, environmental and social reporting. The report on this audit work and its conclusions, along with a note about the reporting methods used by VINCI, is presented on pages 216 to 218. In addition to complying strictly with legislation, VINCI has voluntarily committed to observing the 10 principles of the UN's Global Compact and to reporting annually on its progress in this area. VINCI has also made a commitment to Global Compact France (the French branch of the Global Compact Network) to promote these initiatives among businesses. Advance, a sustainable development self-assessment questionnaire, enables managers to review the Group's workforce-related, environmental and social categories, and take strategic decisions related to them. The method was developed by VINCI in accordance with the principles of the Global Compact, the fundamental conventions of the International Labour Organisation (ILO) and ISO 26000. VINCI's sustainable development policy also encompasses the Sustainable Development Goals that were adopted by the United Nations General Assembly in 2015, and which officially went into effect on 1 January 2017.

Global Compact implementation

Commitments/Principles	Initiatives in 2017
Human rights	
1. To support and respect the protection of internationally proclaimed human rights within the Group's sphere of influence.	<ul style="list-style-type: none"> – Ongoing work of the human rights working group, which brings together the human resources directors of companies that operate in potentially sensitive regions. – Publication and broad dissemination within the Group of VINCI's Guide on Human Rights to teach best practices in this area. Publication of the Guide on the Group's website. – Continuation of the dissemination of the Group's Subcontractor Relations Guidelines, which cover all the Group's business activities and countries where it operates.
2. To ensure that Group companies are not complicit in human rights abuses.	<ul style="list-style-type: none"> – Publication and broad dissemination within the Group of VINCI's Guide on Human Rights to teach best practices in this area. Publication of the Guide on the Group's website. – Ongoing integration of the "Labour standards and human rights" chapter in the Group's new framework contracts with its suppliers. – Development of the new version of Advance, a sustainable development self-assessment questionnaire that deals in particular with fundamental social rights; the questionnaire is intended for the management committees of Group companies.
Labour standards	
3. To uphold the freedom of association and the effective recognition of the right to collective bargaining.	<ul style="list-style-type: none"> – 1,153 collective agreements signed. – Organisation of measures to promote management-labour relations in countries where VINCI operates that have not ratified the International Labour Organisation's conventions on trade union rights.
4. To uphold the elimination of all forms of forced and compulsory labour.	<ul style="list-style-type: none"> – Risks explained in VINCI's Guide on Human Rights, including definitions and case studies. – Inclusion of specific clauses to prohibit forced and compulsory labour in framework contracts with suppliers.
5. To uphold the effective abolition of child labour.	<ul style="list-style-type: none"> – Risks explained in VINCI's Guide on Human Rights, including definitions and case studies. – Inclusion of specific clauses to prohibit child labour in framework contracts with suppliers.
6. To uphold the elimination of job and occupational discrimination.	<ul style="list-style-type: none"> – Diversity programme rolled out via the Group's worldwide network of 208 diversity coordinators. – Diversity courses included in the training of the Group's operational managers. – Guidebook produced by VINCI distributed to all diversity coordinators to prepare them to lead local meetings to heighten awareness of stereotypes, fight against discrimination and promote equal opportunities for all.
Environmental protection	
7. To support a precautionary approach to environmental challenges.	<ul style="list-style-type: none"> – Measures to systematically take environmental criteria into consideration at the earliest stages of projects and when assessing business activity risk, product risk (REACH) and pollution prevention. – Nearly 54,000 hours of environmental training across the Group. – Voluntary participation in the rating of the transparency and performance of corporate water strategy by CDP Water Disclosure, resulting in a management score of B-, above average for sector companies. – Continued high ranking in the CDP Climate Change Program with score of B. – Systematic application of life cycle analysis during tender and design phases: multi-criteria analysis of each phase of the project life cycle.
8. To undertake initiatives to promote greater environmental responsibility.	<ul style="list-style-type: none"> – Ongoing work to conserve biodiversity in partnership with environmental non-profit organisations: introduction of environmental labels at worksites, training courses, best practice handbooks.
9. To encourage the development and dissemination of environmentally friendly technologies.	<ul style="list-style-type: none"> – Integration of renewable energy and of systems with improved energy efficiency within the Group's activities and increase in energy performance guarantees in its products and services. – Development of biodiversity conservation initiatives: ecological engineering services, protection of urban biodiversity, soil remediation using phytoremediation techniques. – Support given to the research and teaching efforts of the VINCI-ParisTech Chair in Eco-design of Buildings and Infrastructure: 15 research projects involving VINCI correspondents and three conferences per year.
Anti-corruption	
10. To work towards combating all forms of corruption, including extortion and bribery.	<ul style="list-style-type: none"> – Further reinforcement of internal controls through the creation of an Ethics and Vigilance Department. – Ongoing distribution of and adherence to the Code of Ethics and Conduct among all VINCI employees. – Point 6 of the Subcontractor Relations Guidelines sets out the need to comply with VINCI's values as expressed in its Manifesto and Code of Ethics and Conduct. – Inclusion of social responsibility criteria including anti-corruption in the supplier and subcontractor selection process, as well as in framework contracts with VINCI subsidiaries. – Implementation of Advance, a sustainable development self-assessment questionnaire that deals in particular with fundamental social rights; the questionnaire is intended for the management committees of Group companies.

VINCI has submitted its workforce-related, environmental and social information for review by its Statutory Auditors since 2002. In 2017 the Group designated one of its Statutory Auditors as an independent third party to attest to the inclusion and fair presentation of the CSR information published in this report, in compliance with Decree no. 2012-557 of 24 April 2012 on companies' disclosure requirements for social and environmental data. As well as checking the consolidation of information from the different business lines, the independent third party carries out interviews and surveys on the application of the guidelines at subsidiaries. In 2017, the following subsidiaries were interviewed: VINCI Autoroutes (ASF, Cofiroute and Escota), VINCI Construction France, VINCI Energies France, VINCI Energies Europe, VINCI Energies International & Systems, Eurovia, Sogea-Satom, VINCI Construction Grands Projets, VINCI Construction UK, Soletanche Freyssinet. International companies are closely monitored, particularly in Cameroon, Colombia, the Czech Republic, Germany and the United Kingdom. Environmental data is presented in compliance with Decree no. 2012-557 of 24 April 2012, in application of Article 225 of France's Grenelle II Environment Act of 12 July 2010, and additional provisions set forth in Decree no. 2016-1138 of 19 August 2016 on changes resulting mainly from 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.

Having been one of the first French companies to support voluntary reviews of its data, VINCI is continuing its efforts. The Group considers transparency with respect to stakeholders to be an element of its performance. The data presented in this report is consolidated using the same method as VINCI's financial data. Some entities, such as QDVC (Qatari Diar VINCI Construction Grands Projets), are still consolidated proportionally.

1. Workforce-related information

1.1 General human resources policy

This section follows precisely Article 225 of France's Grenelle II Environment Act. It is also based on the guidelines of the Global Reporting Initiative (GRI) – see the cross-reference table on page 331.

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. To support its growth, in particular outside France, since 2010 the Group has applied employee development plans adapted to its forward-looking management of jobs and skills. The measures involve all phases of staff's occupational life, be it recruitment, the annual appraisal, training, the collegial workforce review, direct exchanges, and use of the new information and communications technologies. All are used to implement individual development plans covering such areas as job mobility and training and extending to the employee's departure from the company due to retirement, end of employment contract, and so on.

As a major player in very fragmented and extremely competitive sectors, VINCI works hard to stand out by producing compelling results.

1.2 Employment

1.2.1 Workforce

At the end of 2017, VINCI had 194,428 employees in more than 100 countries, higher than the number at year-end 2016 (183,487 employees). This increase reflects both a recovery in business activity for some companies in the Contracting business, especially in Europe, and the inclusion of new companies within the Group. Staff employed by European entities as a percentage of the total workforce came to almost 78% in 2017. Staff employed outside Europe increased, from 21% of the total workforce in 2016 to 22% in 2017, in particular due to business growth mainly in Oceania and the Americas.

VINCI's companies have held up well against strong market fluctuations by implementing a number of human resources management methods, including more coordination between regional activities and solidarity measures, as well as efforts to facilitate job transfers between regions and sectors in order to keep pace with changing activities.

Workforce at 31 December 2017 by geographical area and by business line, with change

	2017								2016	2017/2016	
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.	Total	%	Total	Change
France	6,309	1,099	523	33,848	22,447	31,451	944	96,621	49.7%	95,473	+1.2%
United Kingdom	-	-	32	942	2,686	5,283	-	8,943	4.6%	8,606	+3.9%
Germany	-	-	34	10,845	3,484	356	9	14,728	7.6%	13,643	+8.0%
Benelux	-	3	-	4,840	541	207	6	5,597	2.9%	4,865	+15.0%
Central and Eastern Europe	-	-	44	3,017	4,858	3,805	-	11,724	6.0%	11,512	+1.8%
Rest of Europe	-	3,283	75	8,593	388	1,536	-	13,875	7.1%	10,612	+30.7%
Europe excl. France	-	3,286	185	28,237	11,957	11,187	15	54,867	28.2%	49,238	+11.4%
Americas	-	699	721	1,779	5,122	8,175	-	16,496	8.5%	14,142	+16.6%
Africa	-	-	-	2,021	-	11,633	-	13,654	7.0%	12,726	+7.3%
Rest of the world	-	1,621	-	3,497	-	7,672	-	12,790	6.6%	11,908	+7.4%
Total	6,309	6,705	1,429	69,382	39,526	70,118	959	194,428	100.0%	183,487	+6.0%

Since 2012, the percentage of managers has grown from 17% to 19%. At 31 December 2017, VINCI's workforce consisted of 37,769 managers and 156,659 non-managers. Over the same period, the percentage of female staff rose from 13.4% to 14.8% of total staff, representing a 10.4% increase. Women account for 13.7% of non-managers and 19.3% of managers.

Workforce at 31 December 2017 by category, gender and business line, with change

	2017								2016	2017/2016	
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.	Total	%	Total	Change
Managers	963	919	453	13,639	4,879	16,300	616	37,769	19.4%	35,774	+5.6%
Men	615	576	306	11,437	4,154	13,031	373	30,492	80.7%	29,153	+4.6%
Women	348	343	147	2,202	725	3,269	243	7,277	19.3%	6,621	+9.9%
Non-managers	5,346	5,786	976	55,743	34,647	53,818	343	156,659	80.6%	147,713	+6.1%
Men	3,082	4,206	609	48,769	30,994	47,375	115	135,150	86.3%	127,404	+6.1%
Women	2,264	1,580	367	6,974	3,653	6,443	228	21,509	13.7%	20,309	+5.9%
Total	6,309	6,705	1,429	69,382	39,526	70,118	959	194,428	100.0%	183,487	+6.0%
Men	3,697	4,782	915	60,206	35,148	60,406	488	165,642	85.2%	156,557	+5.8%
Women	2,612	1,923	514	9,176	4,378	9,712	471	28,786	14.8%	26,930	+6.9%

The age structure at VINCI shows an even breakdown between the various age brackets. In five years, the share of the workforce aged under 25 has remained at around 9%, while the over-50 age bracket has remained stable at about 25%.

Workforce at 31 December 2017 by age and business line, with change

	2017								2016	2017/2016	
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.	Total	%	Total	Change
Under 25	94	384	197	6,619	3,215	6,997	99	17,605	9%	15,715	+12%
26-35	367	1,932	534	17,426	8,854	21,132	302	50,547	26%	47,146	+7%
36-50	2,934	3,281	546	26,788	15,586	27,356	351	76,842	40%	73,937	+4%
Over 50	2,914	1,108	152	18,549	11,871	14,633	207	49,434	25%	46,689	+6%
Total	6,309	6,705	1,429	69,382	39,526	70,118	959	194,428	100%	183,487	+6%

1.2.2 Recruitment and departures

The rise in staff levels between 2016 and 2017 is the result of a turnaround in activity in the Contracting business in some European countries, and of the Group's international expansion, in particular in Europe, Oceania and the Americas. Staff numbers returned to their 2012 levels, increasing from 183,487 employees in 2016 to 194,428 in 2017. Employee turnover of approximately 25% in 2017, which is in line with that of the sector, reflects the expiry of worksite contracts, in particular outside France. This reflects a Group recruitment policy adapted to new worksites.

1.2.2.1 Recruitment

Worldwide, the proportion of permanent jobs (permanent job contracts, unlimited-term contracts, site contracts) decreased from nearly 55% in 2016 to 49% in 2017. VINCI again pursued its recruitment policy in 2017. In particular, 3,636 young people were hired for their first work experience, accounting for more than 15% of all new hires in permanent jobs. VINCI hired 50,057 people worldwide in 2017, including 24,703 in permanent jobs (9,438 in France).

1.2.2.2 Types of employment contract

Of the Group's 194,428 staff worldwide at end-2017, 168,378 were employed under permanent job contracts and 26,050 under non-permanent contracts (primarily fixed-term 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 2017, 13,297 temporary staff (full-time equivalent) worked for VINCI in France, up 16% from 2016. VINCI promotes the inclusion of young people on work-study programmes to help them acquire both on-the-job experience and classroom training. 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, 4,478 young people received training under work-study programmes within the Group in 2017 (4,200 in 2016).

Workforce at 31 December 2017 by type of employment contract and business line, with change

	2017							2016	2017/2016	Total	%	Total	Change
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.						
Permanent job contracts ^(*)	6,164	5,888	1,094	63,332	36,157	53,807	854	167,296	86%	162,098	+3%		
Site contracts ^(**)	-	1	-	156	76	849	-	1,082	0%	949	+14%		
Non-permanent job contracts ^(***)	51	798	316	3,166	2,276	14,296	33	20,936	11%	16,097	+30%		
Work-study programmes	94	18	19	2,728	1,017	1,166	72	5,114	3%	4,343	+18%		
Total	6,309	6,705	1,429	69,382	39,526	70,118	959	194,428	100%	183,487	+6%		
Temporary staff (full-time equivalent)	12	340	14	7,920	3,349	12,111	23	23,769	12%	22,185	+7%		

(*) Unlimited-term contracts for France.

(**) Contract type specific to France.

(***) Fixed-term contracts for France.

VINCI promotes local employment and career progression within the Group. Intra-group staff transfers totalled 2,348 in 2017. Group companies offer international volunteering programmes that give graduates the opportunity to work abroad. In 2017, 214 people were welcomed under these programmes, a slight decrease on the number in 2016 (235). The Group had 1,705 expatriate employees at end-2017.

Worldwide intra-group transfers

	2017							Total	Percentage of staff
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.		
Transfers within a business line	10	14	6	1,042	328	806	3	2,209	94%
Transfers to another business line	6	2	9	26	19	67	10	139	6%
Total	16	16	15	1,068	347	873	13	2,348	100%

1.2.2.3 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 business line, with change^(*)

	2017							2016	2017/2016	Total	%	Total	Change
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.						
Expired contracts ^(**)	1,218	988	158	3,242	2,577	10,457	74	18,714	44%	18,891	-1%		
Resignations	35	126	63	3,476	2,055	5,656	32	11,443	27%	10,519	+9%		
Redundancies	-	-	-	397	127	1,232	-	1,756	4%	2,405	-27%		
Dismissals	44	69	18	1,593	1,000	1,862	12	4,598	11%	5,110	-10%		
Other reasons ^(***)	82	109	37	2,033	1,771	1,777	33	5,842	14%	5,198	+12%		
Total	1,379	1,292	276	10,741	7,530	20,984	151	42,353	100%	42,123	+1%		

(*) 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 and others.

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

Since 2014, some Group companies have restructured or even discontinued operations due to difficult local economic conditions. However, these types of plan were considerably less frequent in 2017 due to the recovery in the Contracting business.

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 specialising in employment, leveraged its expertise in 2017 to support businesses that needed to reduce their workforce and help their employees develop a long-term career path.

Also, when VINCI makes an acquisition, it strives to retain staff whenever possible, since they are the guardians 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.

1.3 Organisation of working hours

1.3.1 Hours worked and overtime

Working hours in all VINCI Group companies are subject to each country's legal requirements and collective agreements. In 2017, employees worked more than 334 million hours. The percentage of overtime hours has been stable for more than a decade, at between 4% and 6% of hours worked, compared with 4.7% in 2017, for a total of more than 15 million hours in 2017.

Organisation of working hours, with change

	2017			2016	2017/2016
	Managers	Non-managers	Total	Total	Change
Total hours worked	62,388,713	272,156,796	334,545,509	321,482,502	+4%
Of which overtime	407,006	15,336,155	15,743,161	18,323,346	-14%
Number of part-time employees	944	5,137	6,081	5,763	+6%

1.3.2 Absenteeism

Employees were absent from work 3.4 million days out of 44 million calendar days in 2017. Absenteeism represented 8% of working days. The percentage of non-occupational illnesses in absenteeism has been stable at about 60% for more than a decade (59% in 2017). The percentage of workplace accidents stood at 4.6% of total days of absenteeism.

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

(in number of calendar days)	2017								2016	2017/2016	
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	Construction	VINCI Immobilier and holding cos.	Total	%	Total	Change
Non-occupational illness	103,108	46,468	7,273	796,915	508,864	546,024	6,663	2,015,315	59.0%	2,030,828	-1%
Workplace accident	6,407	6,901	492	39,966	35,965	66,580	199	156,510	4.6%	150,068	+4%
Commuting accident	658	2,108	43	10,165	8,054	8,887	164	30,079	0.9%	31,900	-6%
Recognised occupational illness	747	328	-	13,049	23,180	25,113	-	62,417	1.8%	60,338	+3%
Maternity/paternity leave	6,338	16,723	4,201	110,876	56,907	90,918	2,883	288,846	8.5%	295,956	-2%
Short-term work	-	-	-	10,708	19,719	49,810	-	80,237	2.4%	119,746	-33%
Other cause	12,047	18,514	3,554	173,398	250,059	318,739	1,181	777,492	22.8%	777,229	0%
Total	129,305	91,042	15,563	1,155,077	902,748	1,106,071	11,090	3,410,896	100%	3,466,065	-2%

1.4 Remuneration, employer social contributions and employee savings plans

1.4.1 General remuneration policy

The remuneration policy is based on common principles of allowing staff to take part in their company's success through profit-sharing and incentive plans that reward individual performance. It is in keeping with the Group's decentralised management structure. These principles are implemented through different means in the countries where VINCI operates, in accordance with national contexts, laws and regulations. Employee remuneration takes different forms: wages, bonuses, profit-sharing, incentive plans, employee share ownership, insurance and retirement plans, and other company benefits. VINCI encourages the improvement of all these efforts. All employees, regardless of position, are rewarded in accordance with their responsibilities and performance.

At the end of 2017, 96.8% of employees in France benefited from incentive plans and/or profit-sharing agreements. VINCI distributed higher amounts in France under profit-sharing and incentive plans than the previous year (€151.6 million, up from €141.8 million shared from the Group's growth in 2016).

Employee benefits, with change

(in € millions)	2017	2016	2017/2016 change	Of which France 2017	Of which France 2016	2017/2016 change
Incentive plans	79.9	73.0	+9.5%	68.3	63.5	+7.6%
Profit-sharing	95.9	86.3	+11.1%	83.3	78.3	+6.4%
Welfare protection	40.6	38.6	+5.2%	33.9	32.9	+3.0%
Employer contribution	130.7	111.0	+17.7%	113.6	102.4	+10.9%
Total	347.1	308.9	+12.4%	299.1	277.1	+7.9%

1.4.2 Remuneration and employer social contributions

Payroll expenses totalled €9,215 million in 2017 (€8,710 million in 2016). Payroll-to-revenue increased slightly, at about 23% (22.9% in 2016).

All the Group's main human resources directors meet on a monthly basis to share best practices and set forth guidelines relating to remuneration and employer social contributions, which vary in accordance with the labour laws of each country and as a function of the manager and non-manager categories. VINCI presents these consolidated figures for the world and France.

The analysis performed each year of gaps in remuneration shows that men have historically held the operating positions, which partially explains the lag in remuneration between men and women, although women are making headway in these jobs (see section 1.8.2). Each entity carries out the analysis of remaining pay gaps and ensures equal remuneration for the same job and job potential.

Remuneration and employer social contributions worldwide

(in € thousands)	Total		Managers		Non-managers	
	2017	2016	2017	2016	2017	2016
Average VINCI salary	36	35	64	62	29	29
Men	36	36	67	65	29	29
Women	33	32	50	48	27	26
Employer social contributions	34%	35%	38%	38%	32%	33%

In the case of France, the presentation shows more precise segmentation: managers; office, technical and supervisory staff, and manual workers. Figures designate gross annual averages in thousands of euros.

Remuneration and employer social contributions in France

(in € thousands)	Total		Managers		Office, technical and supervisory staff		Manual workers	
	2017	2016	2017	2016	2017	2016	2017	2016
Average VINCI salary	41	39	67	64	34	33	29	28
Men	41	39	71	67	35	35	29	28
Women	38	37	53	51	30	30	26	26
Employer social contributions	46%	46%	48%	48%	47%	47%	43%	43%

1.4.3 Employee savings plans

1.4.3.1 Employee share ownership

VINCI continued its employee savings efforts, carrying out three share issues during the year, as provided for under the terms of its Group savings plan in France. The regularity of share issues ensures the strength and continuity of this plan, which has been available to employees since 1995.

Employee investment in the Castor fund, which invests exclusively in VINCI shares, is encouraged through a 5% discount on a pre-determined share price and an employer contribution aimed at encouraging savings by the lowest-paid employees. Employer contributions were maintained in 2017 as follows:

- 100% up to €1,000;
- 50% from €1,001 to €4,000.

The employer's maximum annual contribution per employee thus amounts to €2,500. The total employer's contribution for the Castor Fund was over €109 million for France in 2017.

To support its international business development and strengthen staff's sense of belonging to the Group, VINCI decided to extend its employee savings arrangements by giving employees in countries other than France the chance to acquire (directly or indirectly) VINCI shares at preferential prices and thereby give them a greater interest in the Group's financial performance and growth. In 2017, a new plan was initiated in 30 countries^(*) to benefit employees that have been working at least six months at subsidiaries in which VINCI owns more than a 50% stake. The plan covered about 460 subsidiaries. Subject to holding their shares for three years (five years in the UK), employees may receive an employer contribution from VINCI in the form of a bonus share award, deferred to avoid initial taxation (with exceptions) and dependent on employees remaining with the Group for the required time period.

To develop these plans outside France, VINCI decided to carry out a similar plan in 2018 in 31 countries with the addition of another country, Peru, bringing the number of employees covered to about 70,000 in 470 subsidiaries. This increases the plan's coverage to more than 70% of Group employees outside France who are eligible to become VINCI shareholders.

In seven years, staff covered by the employee savings plan has climbed from about 59% to almost 90% of Group employees worldwide.

(*) Australia, Austria, Bahrain, Belgium, Brazil, Cambodia, Canada, Chile, Czech Republic, Dominican Republic, Germany, Hong Kong, Indonesia, Luxembourg, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Poland, Portugal, Romania, Singapore, Slovakia, Spain, Sweden, Switzerland, UAE, UK and USA.

Coverage of employee savings plans

	2013	2014	2015	2016	2017
Number of countries covered (including France)	20	24	28	30	31
Percentage of employees covered	86%	88%	87%	88%	88%

At end-2017, about 122,000 current and former Group employees held more than 8.8% of Group shares via the various investment funds invested in VINCI shares. Collectively, its employees are VINCI's largest shareholder, reflecting their confidence in their Group's future. At the same date, the average employee portfolio totalled more than €32,000.

Created in 2011, VINCI's Employee Shareholders' Circle had about 13,750 members at 31 December 2017, up slightly from the preceding year. The Circle offers a toll-free phone number and a secured and personalised space on VINCI's internet and intranet websites. Employee shareholders may use these facilities to register as Circle members or participate in events such as discovery trips of Lyon, Marseille or Paris, as well as visits to worksites or VINCI projects. The e-letter "En Direct" keeps readers informed of Group events and news.

1.4.3.2 Retirement plans

The Group's collective retirement savings plan, Perco Archimède, came into force in December 2010 in France following the collective agreement with French trade unions CFDT, CFE-CGC and CFTC on 25 June 2010. It rounds out the Group savings plan, and is gradually gaining in popularity. 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. It allows them to:

- receive a lump-sum payment or annuity upon retirement;
- manage their investment themselves or opt for guided management;
- select from a wide range of investment vehicles in accordance with their particular savings or investment profile.

To help its employees more in forming a supplementary retirement plan, in 2016 VINCI decided to double the percentage and amount of the matching contributions it makes: voluntary contributions are now matched 100% with an annual ceiling of €400 for contributions of €400. At end-September 2017, almost 40% of employees in France had subscribed to the Perco Archimède plan, more than 60% of whom were under the age of 50. The average portfolio value was nearly €1,976, an increase of 16% from 2016. The percentage of investments under guided management continued to rise steadily to reach 51%, while 49% were managed by employees themselves.

Employer contributions to the Group's collective retirement savings plan totalled €4.3 million in 2017 for France, up 10% from the €3.9 million contributed in 2016.

In 2013, VINCI established a fixed-contribution supplementary pension plan in France to help executives and other management-level personnel form a supplementary pension plan and take into account the mandatory pension plans affecting this personnel category in particular. Called Reverso, this plan complements Perco Archimède, which is available to all personnel in France, and combines the technical, financial, social and tax advantages of a company pension plan with those of an individual plan. The plan is vested exclusively by annuity.

Reverso is funded by equal contributions from employee and employer (based on the contribution rate rising proportionately to remuneration), and the basic contributions are deductible from the employee's taxable income, as are any additional contributions the employee chooses to make. The plan was set up under an insurance contract between VINCI SA and the insurer ACM-Vie in the summer of 2013 and has since been rolled out at subsidiaries. At end-2017, Reverso was available to all Group subsidiaries and eligible employees in France, covering 766 companies and representing a potential of 26,000 employees.

1.5 Labour relations and collective agreements

1.5.1 General policy regarding dialogue between management and labour

VINCI's policy regarding dialogue between management and labour 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); and working to foster communication and collective bargaining worldwide. In this regard, dialogue between management and labour is confirmed as a key component to the success of the Group Manifesto and its commitments.

VINCI's decentralised organisational structure facilitates dialogue between management and labour at all Group levels. In 2017, 8,666 employees around the world served as employee representatives (including 7,368 in France). An overall budget of €220,000 is distributed to the trade unions represented on the Group Works Council, mainly in proportion to their membership, with the aim of assisting them and giving them the means of exercising their mandates.

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.

1.5.2 Employee representative bodies

Employee representative bodies strengthen dialogue between management and labour by working with the various local organisations that oversee occupational hygiene, health, safety and working conditions.

A number of organisations covering specific cases or national situations have been set up to complement individual companies' employee representative bodies. France, for example, has a Group Works Council comprising representatives from about 50 entities that meets at least twice a year. It receives information about the Group's business and financial situation, employment trends and forecasts, and health and safety actions at Group and company levels. It is kept informed of the economic and business outlook for the coming year and has access to the Group's consolidated financial statements and the associated Statutory Auditors' reports. It is also informed, prior to any decision, of any significant projects that may affect the Group's consolidation scope or its legal or financial structure, and of their potential impact on employment. In certain business lines, bodies have also been established for each business activity to ensure the continuity of dialogue between management and labour.

The European Works Council takes up discussions within these various local or national organisations at the European level. The council's mandate, renewed in 2014 under an agreement unanimously approved by all unions, makes provisions for representatives from 11 countries in which VINCI operates: Austria, Belgium, the Czech Republic, France, Germany, the Netherlands, Portugal, Romania, Slovakia, Sweden and the UK. The role of the council, which meets once a year, is to ensure that the employee representatives of the Group's subsidiaries in the European Economic Area and Switzerland are properly informed and consulted. At end-2017, the council was composed of 47 representatives.

1.5.3 Trade union freedoms

Since 84% of the Group's business is in Europe, the European Works Council is the prime guarantor of freedom of association and the right to organise. An online platform was set up in 2016 for members of the European Works Council to make communication easier among them and improve the provision of information on the council's work for employees of VINCI's European subsidiaries. To fulfil its role, every year the European Works Council receives three days of training on legal, economic and social issues.

Elsewhere, VINCI companies observe the laws and regulations of the countries in which they do business. Operational managers are assisted by human resources managers, who propose the solutions the best adapted to local conditions and in compliance with VINCI's commitments to observe trade union freedoms.

1.5.4 Collective agreements

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 2017, 1,153 collective agreements were signed, of which 20% outside France.

The agreement to promote labour-management relations covering all the French companies of the VINCI Group was signed with labour representatives at end-2015, confirming consultation with employee representatives as one of VINCI's core values. This agreement provides for reinforcing the information forwarded to employee representatives and for assistance for them throughout their terms of office and also following the expiry of their terms. A joint commission has been set up to offer an alternative to disputes about restrictions on exercising terms of office to represent staff. At the end of their term of office, representatives receive a contribution to their personal training account (CPF account), subject to certain conditions relating to length of term, to help them acquire the skills needed to facilitate their reintegration into the workforce.

Collective agreements by category, with change

	2017	Portion of total agreements	2016	2017/2016 change
Flexible work arrangements	104	9.0%	99	+5.1%
Equality and diversity	55	4.8%	52	+5.8%
Union rights	64	5.6%	58	+10.3%
Training	13	1.1%	5	+160.0%
Job and skill management systems	51	4.4%	50	+2.0%
Health and safety	49	4.2%	42	+16.7%
Welfare protection	92	8.0%	57	+61.4%
Remuneration and benefits	594	51.5%	607	-2.1%
Pensions	19	1.7%	4	+375.0%
Other	112	9.7%	31	+261.3%
Total	1,153	100.0%	1,005	+14.7%

More than 51% of the agreements related to salary. Among the other collective agreements, many involved flexible work arrangements, with 104 agreements signed in 2017. The number of agreements relating to union rights rose from 58 in 2016 to 64 in 2017.

1.5.5 Collective conflicts

Absenteeism due to strikes is very marginal at VINCI. In 2017, employee absences due to strikes totalled 4,252 days (of which 3,241 in France) out of a total of 44 million days worked in the year. Salary demands, mainly stemming from national actions, were the main cause of the strikes.

1.6 Health and safety

1.6.1 General health and safety policy

Achieving zero accidents remains VINCI's priority. The goal, reiterated in VINCI's Manifesto, applies not only to VINCI employees but also to temporary staff and anyone else on a VINCI site, including the employees of joint contractors and subcontractors and on sites under operation (motorway and airport customers, etc.). The Group encourages and supports its subcontractors and suppliers in this effort by sharing tools and resources with them and involving them in safety actions. Safety performance has improved significantly since this priority policy began to be implemented, in particular in recent years, with the reduction in frequency of lost-time workplace accidents to 6.60 (from 8.60 in 2012). VINCI's commitment to attain zero accidents was confirmed in a statement issued in 2017 with the Group's European Works Council. The statement provides a set of guidelines for the essential and fundamental steps to be taken, along with measures for progress and initiatives within Group companies to explore ways of improving health protection and the prevention of occupational risks. It 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.

In 2017, the Group continued its drive to instil a culture of safety awareness in all employees as well as its work on the reporting and analysis of near-miss incidents. The early detection of near-miss and at-risk situations helps keep down the number of accidents but, above all, contributes to the creation of a daily safety awareness culture. The Contracting business lines regularly organise safety events throughout the world. In 2017, these events included World Safety Week organised by VINCI Energies and VINCI Construction, and Eurovia's International Prevention Day. The inclusion of temporary staff and subcontractors in safety training and awareness activities is being systematically implemented within the Group. Moreover, safety data on temporary staff and subcontractors is increasingly included in the performance monitoring indicators.

1.6.2 Health and safety of VINCI employees

The main goal of the Group's health and safety policy is to anticipate and prevent occupational hazards, including psychosocial risks. It 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. The health and safety coordination system ensures the implementation of VINCI's H&S policy. This worldwide system brings together the health and safety managers in all the business lines. It aims to foster the sharing of best practices, improve the reliability of H&S indicators, and propose new ways of making progress in keeping with each business activity's specific situation. Accident prevention Pivot Clubs and internal collaborative platforms help disseminate and monitor safety events for the approximately 100-strong H&S coordinators.

Training, awareness and employee support campaigns are among the various measures taken to promote health and safety. With respect to occupational health actions, the Group's initiatives, campaigns and reports focus mainly on substance abuse, studies of workstation ergonomics and musculoskeletal disorders. A number of measures have been taken to upgrade equipment and tools and to implement flexible work arrangements. Several companies in France develop their policy on improving quality of life in the workplace in partnership with the French national agency for the improvement of working conditions (Anact). Training programmes for managers have been developed at most Group business lines to reinforce the culture of safety among management.

As a result of these various actions, the proportion of companies with no lost-time workplace accidents has risen from 63% to 72% in five years, which represents an increase of more than 14%.

Frequency and severity rates, percentage of VINCI companies with no lost-time workplace accidents, with change

	Group			Of which France		
	2017	2016	2017/2016 change	2017	2016	2017/2016 change
Lost-time workplace accident frequency rate ^(*)	6.60	6.84	-3.5%	9.33	8.67	+7.6%
Lost-time severity rate ^(**)	0.47	0.47	0.0%	0.85	0.78	+9.0%
Percentage of companies with no lost-time workplace accidents	72%	70%	+3%	65%	64%	+2%

^(*) Lost-time workplace accident frequency rate = (number of lost-time workplace accidents x 1,000,000)/number of hours worked.

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

☑ Data checked to a level of reasonable assurance.

In five years, the frequency of lost-time accidents declined from 8.60 in 2012 to 6.60 in 2017.

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

	Frequency rate			Severity rate	
	2017	2016	2017	2017	2016
Concessions	13.42	16.14	0.58	0.82	
VINCI Autoroutes	6.71	5.30	0.74	0.69	
VINCI Airports	18.93	26.37	0.55	0.97	
Other concessions	9.28	4.24	0.19	0.41	
Contracting	6.09	6.21	0.46	0.44	
VINCI Energies	5.23	5.41	0.36	0.34	
Eurovia	7.15	6.90	0.56	0.58	
VINCI Construction	6.30	6.54	0.49	0.46	
Group	6.60	6.84	0.47	0.47	

☑ Data checked to a level of reasonable assurance

In 2017, occupational illnesses recognised in the Group were responsible for 62,417 days lost out of a total of 44 million days worked.

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

	Group			Of which France		
	2017	2016	2017/2016 change	2017	2016	2017/2016 change
Days lost through recognised occupational illness	62,417	60,338	+3.4%	62,020	59,775	+3.8%
Recognised occupational illness frequency rate ^(*)	0.99	1.13	-12.4%	2.21	2.28	-3.1%
Recognised occupational illness severity rate ^(**)	0.19	0.19	0.0%	0.43	0.41	+4.9%

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

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

1.6.3 Health and safety of temporary staff

Under the terms of the Group's framework agreement in France with its partners, temporary employment agencies participate fully in the Group's health and safety policy aims, notably its zero accident goal.

A new list of approved temporary employment agencies came into effect on 1 January 2016. They are selected from the Group's framework agreement based on stricter occupational health and safety criteria.

The difference 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. The accident frequency rate was 14.40 worldwide in 2017. It should also be noted that, after a period of economic crisis, the use of temporary staff increased; worldwide, the numbers rose from 22,185 in 2016 to 23,769 in 2017 (full-time equivalent).

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

	2017	2016	2017/2016 change
Concessions	6.22	5.11	+21.8%
Contracting	14.53	10.60	+37.1%
Total	14.40	10.54	+36.6%

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

1.6.4 Subcontractor health and safety

Subcontracting accounted for €8.3 billion in 2017, around 21% of Group revenue. In VINCI's business activities, subcontracting is multi-faceted and performed on diverse levels, and some VINCI companies also act as subcontractors. Under such complex circumstances, many VINCI companies have signed framework contracts with their subcontractors. The zero accident goal is the common denominator in these framework contracts, which include special clauses covering the wearing of personal protective equipment, and reporting of workplace accidents and ongoing information on any change in worksite hazards. 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 disseminated by the regional Pivot Clubs where the regional managers of the Group's businesses meet regularly and exchange ideas.

1.6.5 Health and safety agreements

As part of its health and safety policy, VINCI negotiates and enters into specific agreements with trade unions and employee representatives on subjects related to improving staff working conditions, thereby enhancing the overall performance of Group companies. In 2017, one of the main subjects of collective bargaining was working conditions and arrangements, especially relating to quality of life in the workplace.

In France, the public authorities decided to use labour-management discussions to develop the regulatory measures set up in 2015 relating to arduous work conditions. VINCI contributed to this dialogue and actively pursued it in its occupational fields in 2017, and will continue to do so in the years ahead.

A joint statement on occupational health and safety at VINCI was signed by Xavier Huillard and the secretary of the Group Works Council, Noureddine Boudjeniba, on 1 June 2017. The statement sets out four fundamental actions: accident risk analysis, wearing of protective equipment provided, implementation of procedures and processes to assess risks, and safety awareness.

1.7 Training

1.7.1 General training policy

The main goals of the general training policy are to share the fundamentals of the Group's business culture among all employees and to transmit know-how and expertise in order to meet clients' expectations and be their best partner, as well as to maintain a high level of operational performance. This policy also strives to promote the inclusion and career development of each employee via technical and management training as well as meetings devoted to personal and career development.

Skills development is driven by the need of each business activity to improve productivity and adapt to changing 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.

To achieve these goals, VINCI's business lines and divisions have set up internal training centres. At Group level, VINCI Academy organises cross-disciplinary management and project management training programmes, and other courses for senior managers of the Group and its operational subsidiaries. VINCI Academy continued to revamp its pedagogical approach in 2017. Rollout of the new online learning solution continued at Group entities throughout the year. The tool is designed to serve as a comprehensive knowledge base for disseminating the Group's approaches and expertise.

Two new headline projects were launched. The first covers risk prevention and safety in business travel for employees who travel abroad for work. The second project presents best practices in using the internet and social media.

In 2017, the training courses delivered by internal training centres as a proportion of all training courses was stable, at 24%. During the year, VINCI pursued its Group strategy by accelerating its worldwide rollout of a large number of programmes in project management, human resources management, safety, know-how and skills development for staff and subcontractors, as well as partners.

The increasing use of digital technology and new learning techniques made such acceleration possible. VINCI Airports focused on environmental concerns, offering a range of courses from which all employees can benefit. It includes an e-learning module for all on general awareness, an expert-level programme combining eight online and classroom modules, and a course for top management on implementing the ISO 14001 standard. This mixture of approaches helps ensure that best environmental practices are disseminated throughout the organisation.

Expansion outside Europe strengthened in 2017. At its Africa Pro campus in Morocco, Sogea-Satom massively deployed programmes during the year via training courses, which, in an initial phase, primarily address the works segment. These programmes reach out to all management staff working in Africa to enhance their integration and build a shared workplace culture along with the first internal professional network.

Activity of internal training centres: number of training hours, with change

Business line	Internal training centre	Number of training hours in 2017	2017/2016 change	Number of trainees in 2017	2017/2016 change
VINCI^(*)	VINCI Academy	6,069	+8.7%	466	+7.4%
Concessions		196,101	+24.7%	20,967	+16.5%
VINCI Autoroutes	Parcours ASF, Parcours Cofiroute, Parcours Escota	157,335	+26.5%	19,415	+25.3%
VINCI Airports	VINCI Airports Academy	38,766		1,552	
Other concessions		-	0.0%	-	0.0%
Contracting		642,207	+5.2%	42,414	+16.1%
VINCI Energies	VINCI Energies Academy	157,484	+1.8%	9,659	+2.0%
Eurovia	Eurovia Academy	98,519	+8.1%	5,056	+50.3%
VINCI Construction ^(**)		386,204	+5.9%	27,699	+16.9%
Total		844,377	+9.2%	63,847	+16.2%

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

(**) Internal training centres: Cesame, Eugène Freyssinet Centre, Sogea-Satom Centre, VINCI Construction Grands Projets.

1.7.2 Training initiatives

In 2017, an average of 18 hours of training was provided per employee within the Group, with managers receiving 20 hours and non-managers 18. Sixty-nine percent of managers received training. More than €202 million was spent on training in 2017. Nearly 3.5 million hours of training (up 8% from 2016) mainly involved technical areas (40%), and health and safety (38%). In 2017, VINCI advanced its goal of fostering the professional development of all its employees by providing each of them with personalised training: 127,883 employees received training, representing 67% of staff.

Breakdown of training hours by subject, with change

	2017						Of which France	2016	2017/2016
	Managers	Non-managers	Men	Women	Total	%			
Technical	209,581	1,169,968	1,216,726	162,823	1,379,549	39.7%	693,573	1,280,168	+7.8%
Health and safety	179,084	1,127,161	1,201,802	104,443	1,306,245	37.6%	770,052	1,216,122	+7.4%
Environment	11,242	42,682	45,051	8,873	53,924	1.6%	15,970	37,336	+44.4%
Management	134,163	99,451	194,018	39,596	233,614	6.7%	117,162	224,243	+4.2%
Admin and support	109,846	160,215	174,142	95,919	270,061	7.8%	156,982	255,459	+5.7%
Languages	59,349	70,738	85,160	44,926	130,087	3.8%	45,555	130,089	0.0%
Diversity training	3,844	11,406	12,079	3,172	15,250	0.4%	10,095	6,583	+131.7%
Other	28,495	55,160	63,750	19,905	83,655	2.4%	24,994	65,305	+28.1%
Total	735,604	2,736,781	2,992,728	479,657	3,472,385	100.0%	1,834,383	3,215,305	+8.0%
Hours of training per employee	20	18	18	17	18		19	18	0.0%

Environmental training

All VINCI companies make efforts to raise awareness of environmental issues, and a total of 53,924 hours of environmental training were delivered in 2017. Environmental training is increasingly incorporated into existing courses (works, studies, operations, etc.). 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, while more broadly, environmental training is being developed in other countries. For example, in 2017, VINCI plc in the United Kingdom set up 164 training sessions, totalling 984 training hours, ranging from modules on best environmental practices to sessions aimed at enhancing environmental awareness as part of the Site Environmental Awareness Training Scheme (SEATS). VINCI Construction Grands Projets now offers a two-day environmental training course for all interested staff around the Group.

Environmental training and awareness, with change

	Number of hours of training		Change
	2017	2016	2017/2016
Concessions	8,584	8,426	+2%
VINCI Autoroutes	6,668	7,534	-11%
VINCI Airports	1,368	807	+70%
Other concessions	548	85	+545%
Contracting	45,340	28,910	+57%
VINCI Energies	5,273	5,231	+1%
Eurovia	7,452	7,167	+4%
VINCI Construction	32,615	16,512	+98%
VINCI Immobilier and holding cos.	-	-	0%
Total	53,924	37,336	+44%

1.8 Equality and diversity

1.8.1 General policy for promoting diversity and preventing discrimination

In this area, VINCI is pursuing the diversity policy it initiated in 2004, which is based on preventing any type of discrimination in its hiring, training, promotion and remuneration of employees and in their working conditions. It also aims to ensure equality for everyone, with a special focus on gender equality, employing people with disabilities as well as those from an immigrant background, and age pyramid management.

A worldwide network of diversity coordinators and trainers designs and implements VINCI's diversity policy. There were 208 of them at end-2017, which was 35% higher than in 2016. The number of coordinators outside France was multiplied by five in 2017, rising to 22. The coordinators are trained and regularly pool know-how during diversity days or via their collaborative platforms. Together, they devise policies and initiatives that can be rolled out across the Group. Two coordinator meetings were held in 2017. At the first meeting, the coordinators worked on the justification of their involvement in the Group's diversity and inclusion initiatives and the visibility of their role in their different operational, functional and geographical spheres of influence. The second meeting took the form of a hackathon, and provided the opportunity to design and put forward action plans on 12 issues in the areas of work-life balance, self-censorship, verbal excesses and exemplary management. VINCI Academy continued to roll out its training course for Group managers on managing diversity in the pursuit of performance. In 2017, 45 managers completed this course, taking the total to 186 managers trained in France.

Use of the digital platform "VINCI fights discrimination – what about you?" increased in 2017. The platform, which measures how well companies fare when tested for discrimination, had nearly 980 logins, up 142% compared with 2016. This self-assessment tool is made up of 150 questions, grouped into nine modules: recruitment, hiring 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. The questions are divided into two categories: anti-discrimination basics and areas for improvement. An international version in English is being developed with the support of human resources teams outside France.

In France, the Group continues to pursue its policy of expanding the number of companies with the Diversity label awarded by Afnor Certification. At the end of 2017, 10 Group companies had earned the label, covering 8.5% of staff in France. For several Group companies, the label was successfully renewed in 2017 for another four years. Meanwhile, five other companies have entered into the accreditation process. Two Group companies in the United Kingdom have also been granted Diversity awards from the National Centre for Diversity.

In 2017, 260 VINCI Group employees in France took part in workshops on the theme of "religious expression in the workplace". Over 2016 and 2017, a total of 375 participants took part. The aim of the workshops is to promote in-depth understanding of the impact of employees' expressed or supposed religious beliefs on the smooth running of the company, staff cohesion, and health and safety requirements. The participants also had the opportunity to discuss situations when religious or other beliefs manifest in the company.

Diversity is an integral part of dialogue between management and labour. Fifty-five collective agreements (up 5.8%) were signed on equality and diversity in 2017. The Group's diversity policy and its main points were presented at a VINCI Group Works Council meeting.

1.8.2 Measures to promote gender equality

VINCI pursued its drive to significantly improve its gender mix and in particular to increase the percentage of women in managerial roles to 25% by end-2020. Women accounted for 19.3% of the total number of managers worldwide and 21.5% of managers in France at the end of 2017 (21% in 2016).

Since 2012, the number of the Group's women employees has grown from 25,903 to 28,786, representing an increase of almost 11%. During the same time frame, the number of Group employees has remained virtually unchanged, rising from 192,701 to 194,428, up 1%.

Women employees by business line, with change

	2017					2016	2017/2016	
	Number of women managers	As a % of managers in the workforce	Number of women non-managers	As a % of non-managers in the workforce	Total women employees	As a % of the total workforce	Total	Change
Concessions	838	36%	4,211	35%	5,049	35%	4,685	+8%
VINCI Autoroutes	348	36%	2,264	42%	2,612	41%	2,692	-3%
VINCI Airports	343	37%	1,580	27%	1,923	29%	1,690	+14%
Other concessions	147	32%	367	38%	514	36%	303	+70%
Contracting	6,196	18%	17,070	12%	23,266	13%	21,826	+7%
VINCI Energies	2,202	16%	6,974	13%	9,176	13%	8,347	+10%
Eurovia	725	15%	3,653	11%	4,378	11%	4,141	+6%
VINCI Construction	3,269	20%	6,443	12%	9,712	14%	9,338	+4%
VINCI Immobilier and holding cos.	243	39%	228	66%	471	49%	419	+12%
Total	7,277	19%	21,509	14%	28,786	15%	26,930	+7%

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

The 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 hiring of people with disabilities, and the use of social enterprises ("EA") and sheltered workshops ("ESAT") that specifically employ people with disabilities.

Trajeo'h was established to help incapacitated staff remain in employment, hire people with disabilities and generally support Group companies in the area of disability. The non-profit organisation's activity developed significantly in 2017. The 12 Trajeo'h establishments took on all 465 of the requests received from VINCI employees over the year, up 7% from 2016. Added to the dossiers already in hand, Trajeo'h supported a total of 744 employees in 2017, up 27% on 2016.

In 2017, 3,901 people with disabilities were working within the Group worldwide, representing 2% of employees. Faceo Entreprise Adaptée, a social enterprise working in the field of facilities management, had a total of 61 employees with disabilities, accounting for more than 89% of total staff at end-2017.

In 2017, €5.9 million of revenue was awarded to companies with workforces primarily comprised of employees with disabilities, remaining stable from the previous year. A guidebook continued to be distributed to purchasing officers and managers, explaining the workings of organisations employing mainly people with disabilities and the types of service they perform. The entire kit includes the guidebook, a contract template, a film and visual awareness props. The geo-tracking system developed by VINCI Energies France to find organisations (EA and ESAT) with workforces primarily made up of employees with disabilities was adapted for use by all the Group's business lines.

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. Following a sharp decrease in 2016 for VINCI, this levy increased to €4.7 million in 2017, maintaining its average for the past several years, i.e. about €4.6 million.

Proportion of employees with disabilities by business line, with change

	2017					2016	2017/2016		
	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	42	1.8%	474	3.9%	516	3.6%	443	3.3%	+16.5%
VINCI Autoroutes	33	3.4%	439	8.2%	472	7.5%	421	6.4%	+12.1%
VINCI Airports	7	0.8%	27	0.5%	34	0.5%	14	0.2%	+142.9%
Other concessions	2	0.4%	8	0.8%	10	0.7%	8	1.0%	+25.0%
Contracting	393	1.1%	2,977	2.1%	3,370	1.3%	3,382	2.0%	-0.4%
VINCI Energies	192	1.4%	1,402	2.5%	1,594	2.3%	1,600	2.5%	-0.4%
Eurovia	27	0.6%	688	2.0%	715	1.8%	710	1.9%	+0.7%
VINCI Construction	174	1.1%	887	1.6%	1,061	1.5%	1,072	1.6%	-1.0%
VINCI Immobilier and holding cos.	5	0.8%	10	2.9%	15	1.6%	13	1.5%	+15.4%
Total	440	1.2%	3,461	2.2%	3,901	2.0%	3,838	2.1%	+1.6%

2. Environmental information

2.1 General environmental policy: “Acting for green growth”

2.1.1 Environmental organisation

The implementation of VINCI’s environmental policy, “Acting for green growth” (see page 38), is built on the Group Executive Committee’s commitment, the empowerment of all operational staff within Group companies, and open dialogue with national, European and international public authorities and environmental protection organisations. The operational departments coordinate and ensure the application of VINCI’s environmental policy in all aspects of day-to-day work. They rely on a network of over 500 correspondents who are in charge of managing environmental risks and developing initiatives to protect the environment. The Group’s Delegation for Sustainable Development steers this network, organises technical working groups comprising experts from each business line – such as the Biodiversity Task Force, the Circular Economy group, or the Energy Performance group – and coordinates the Group’s environmental actions. The sustainable development self-assessment questionnaire, Advance, is used by all Group companies. Based on the ISO 26000 concept, it enables each subsidiary’s management committee to assess its level of commitment and validate its environmental action plan.

2.1.2 Environmental reporting coverage and scope

VINCI’s environmental reporting system deals with the themes listed in Article 225 of France’s Grenelle II Environment Act and covers further provisions under Article 173 of France’s 2016 law on the energy transition for green growth. It uses the Group’s common financial and social reporting software and is based on the standards of the Global Reporting Initiative’s Sustainability Reporting Guidelines and adapted to the Group’s activities (see the cross-reference table on pages 331 and 332). Reporting covers nearly all of the Group’s companies and uses around 60 quantitative indicators for measuring performance against key environmental parameters such as the consumption of resources (especially water) and energy, greenhouse gas emissions, waste and recycling, certification, training, environmental incidents and environmental risk provisions. Environmental reporting is prepared using updated methodological guidebooks 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 216 to 218, covers the key points.

Environmental reporting covered 97% of total revenue generated by companies in the new scope at end-2017. This high rate was maintained thanks to the steadfast dedication of Group companies and the consolidation of new international companies. At VINCI Construction, coverage has decreased since 2015 primarily due to the completion of major projects outside France, which are the main international projects to be monitored for reporting purposes, and the launch of new projects. However, the inclusion of new companies operating outside France (HEB Construction) in the reporting scope at the end of 2016 and in 2017 extended coverage. Efforts continue to focus on short-term projects outside Europe to cover 100% of revenue.

Environmental reporting coverage – excluding acquisitions in 2017

<i>(as a percentage of revenue)</i>	2017	2016	2015
Concessions	99	100	100
VINCI Autoroutes	100	100	100
VINCI Airports	100	100	100
Other concessions	89	100	94
Contracting	-	-	-
VINCI Energies	100	99	99
Eurovia	100	99	99
VINCI Construction	90	90	97
VINCI Immobilier	100	100	100
Total	97	95	98

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.

Having been one of the first French companies to support voluntary reviews of its data, VINCI is continuing its efforts. The Group considers transparency with respect to stakeholders to be an element of its performance. The data presented in this report is consolidated using the same method as VINCI’s financial data. Some entities, such as QDVC, which is 49%-owned by VINCI Construction Grands Projets, are still consolidated proportionally.

2.1.3 Preventing environmental incidents

Each Group entity prepares and updates environmental incident prevention plans that address its specific environmental risks. Under new regulations passed in France (Law no. 2017-399 of 27 March 2017), VINCI is establishing a duty of vigilance plan (see section 4 of chapter E, “Workforce-related, environmental and social information”, page 215). The most significant projects undergo a preliminary analysis of environmental risks to determine the appropriate prevention equipment and procedures. Specific documents and equipment are provided to help prepare for and respond to emergency situations. At VINCI Construction France, for example, all staff concerned – skilled site workers, works management teams, cost estimating teams and project coordinators – are trained or informed about environmental issues and incident prevention. Modules have been specially developed for each job category and are available in various formats: worksite training, classroom training or e-learning. This training covers environmental regulations that apply to projects and provides the tools necessary for implementing best practice.

In 2017, VINCI or its subcontractors were involved in three major environmental incidents (three in 2016). 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. All three incidents – one in France, one in the United Kingdom and one in Slovakia – involved oil or fuel leaks, which contaminated the soil. All available resources are being implemented to repair the damage caused, in accordance with applicable regulations.

2.1.4 Environmental certification

VINCI encourages its companies to obtain ISO 14001 or similar environmental certification to confirm and improve the effectiveness of their environmental management system. Operational activities maintained their high certification level in 2017. VINCI Autoroutes has had all its in-service motorways ISO 14001 certified, while VINCI Airports has had 12 airports certified, corresponding to 52% of its revenue. The proportion of revenue generated by certified contracting entities is steadily increasing, particularly at VINCI Energies, with 44% now certified compared with 24% in 2010, and VINCI Construction, with 83% certified compared with 59% in 2010.

Group activities covered by ISO 14001 environmental certification

<i>(as a percentage)</i>	2017	2016	2015	Scope/base reference
VINCI Autoroutes				France
Motorways in service	100	100	100	Kilometres
Motorways under construction	-	100	100	Kilometres
VINCI Airports, percentage of revenue	52	72	72	France and worldwide
Other concessions, percentage of revenue	24	18		France and worldwide
VINCI Energies, percentage of revenue	44	43	40	France and worldwide
Eurovia				France and worldwide
Production from quarries owned	60	60	63	Tonnes
Production from coating plants owned	48	45	39	Tonnes
Production from binder plants owned	67	33	61	Tonnes
Revenue from the works activity	27	25	32	France and worldwide
VINCI Construction, percentage of revenue	83	81	75	France and worldwide

VINCI companies have acquired substantial expertise in meeting a variety of environmental standards, including HQE®, BREEAM® and LEED®. In 2017, they delivered 230 certified projects, of which 33 BREEAM® projects and 18 LEED® projects involving both new and refurbished buildings for a total of €2.9 billion. Since 2010, these certification labels have been awarded to 2,671 projects amounting to €26.7 billion. The construction of the Aqualagon water park for Villages Nature® Paris, located 32 km outside the city, applied for HQE®, BREEAM® and LEED® certification. At Architizer A+Awards 2017, an international programme that celebrates the year's best architectural achievements worldwide, Aqualagon won the Popular Choice award in the Unbuilt Sports and Recreation category. In 2017, several VINCI Construction France developments received a nod at the Green Solutions Awards organised by the Construction21 network. Winners in France included the Le Pressoir urban regeneration zone in Le Havre and the École Nationale Supérieure Maritime (ENSM) building in the same city. A particular focus was placed on resource autonomy for the building to achieve top environmental performance by making use of solar and marine energy, resulting in a positive energy balance. VINCI Immobilier delivered Elements, located in the heart of a new, ultra-connected business hub within the Paris Rive Gauche urban development complex in France. This commercial building covering 16,300 sq. metres of office space and 830 sq. metres of shops meets HQE®, BREEAM® Very Good and Effinergie+ certification standards. To bring nature into the work environment, VINCI Immobilier has created a space where natural surroundings appear to be perfectly integrated into the building, with three vast green terraces and a garden inspired by the forest of Fontainebleau.

2.2 Resource conservation and the circular economy

Sustainable management of resources, in line with the concept of a circular economy, is a fundamental component in VINCI's environmental policy, which focuses on the three key areas and seven pillars defined by Ademe, the French environment and energy management agency. The circular economy concept is incorporated into a variety of aspects of VINCI's business, ranging from the eco-design strategy used in its products and services to the management of resources (water, soil, waste, energy, etc.). VINCI firmly believes that the circular economy must be central to its business activities, drawing on three main concepts: eco-design, a systemic and regional approach, and inclusive and collaborative methods.

2.2.1 Sustainable use of resources

2.2.1.1 Protecting water resources

VINCI answered the CDP Water Information Request for the sixth time, to be once again among the 2,025 companies worldwide capable of replying to the information request supported by 639 global investors. The Group achieved a rating of B- for 2017, outscoring many other companies in its sector in the area of water management. The Group's water strategy is based on its environmental policy: it includes water consumption and pollution prevention in risk analyses; measures and reduces water consumption resulting from its business activities and products; and protects aquatic environments and their ecosystems. A Marine and Inland Waterway Works Pivot Club identifies expertise and designs new, specific offerings that account for approximately 10% of VINCI Construction's revenue. Many opportunities are developing in this sector. The demand for fresh water is expected to result in huge investment, and extreme weather events (flooding, tsunamis, etc.) are likely to require large-scale works in the future. In 2017, VINCI Construction France developed hydraulic engineering business activities, which come under the VINCI Construction Marine and Inland Waterways division.

Group companies monitor water resources particularly carefully. Subsidiaries have adopted a number of specific initiatives to reduce their consumption. Programmes to find and repair leaking pipes are being conducted on Escota's motorway network in southern France. 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. All of their concrete batch plant installations feature settling basins to treat effluents and recycle water.

Conserving water resources also involves protecting wetlands. For example, of all the VINCI motorways in service, 77.5% 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. These protection programmes were strengthened by the adoption of the green motorway package and the motorway stimulus plan. Under this plan, ASF firming its commitment in 2016 to launch initial upgrades to protect wildlife and water resources, and save water. These works continued in 2017.

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. Some subsidiaries have created specific products and services to conserve fresh water resources. VINCI Construction Terrassement developed Aqua-eco, a new technology that can reduce by up to 65% the amount of water used for hosing down civil engineering project worksites. VINCI Construction Grands Projets set up Water Management International, a structure designed to manage and optimise drinking water systems outside France.

Consumption of water purchased (in cubic metres)

	2017	2016	Change
Concessions	2,482,359	1,869,839	+32.8%
VINCI Autoroutes	792,587	841,552	-5.8%
VINCI Airports	1,635,207	978,668	+67.1%
Other concessions	54,565	49,619	+10.0%
Contracting	9,796,878	7,682,786	+27.5%
VINCI Energies	312,630	321,236	-2.7%
Eurovia	3,192,610	3,244,483	-1.6%
VINCI Construction	6,291,638 ^(*)	4,117,067	+52.8%
VINCI Immobilier	3,344	1,782	+87.7%
Total	12,282,581	9,554,407	+28.6%

(*) Scope does not include VINCI Construction International Network Oceania (HEB Construction).

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. The sharp increase at VINCI Construction mainly stems from the extent of the works on the Lorong Kuda interchange in Kuala Lumpur being carried out jointly by BSG Construction Malaysia and the major projects division of Soletanche Freyssinet (Soletanche Bachy International). Consumption rose for the Concessions business, partly due to the inclusion of airport concessions and VINCI Railways in the reporting scope. Many of the Concessions business companies have taken steps to reduce their water consumption. For example, ANA, part of VINCI Airports, is the only airport operator in the world that measures its water footprint across all 10 of its airports. An action plan has been defined for each airport to control and reduce consumption and pollution throughout the value chain.

VINCI continues to improve its monitoring of water consumption by consolidating the monitoring of consumption of water from boreholes and of water pumped directly from the natural environment. The programme at VINCI Autoroutes to monitor its consumption of water from boreholes is now in place for most concessions.

Consumption of water taken directly from the natural environment (in cubic metres) in VINCI's concessions

	2017				2016			
	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	392,235	206,884	3,550	602,669	369,922	53,856	4,441	428,219

(*) Scope includes Lyon-Saint Exupéry Airport as of 2017.

(**) The Le Mans stadium is the only concession with its own borehole.

Measuring the consumption of water purchased or taken directly from the environment by drilling or pumping remains complex. Measurements should 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 an 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. 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. The score achieved on the 2017 CDP Water Information Request (Management B-) is a sign of their maturity.

2.2.1.2 Raw materials consumption

In the Concessions business, most raw materials consumption is monitored and consolidated. In 2017, 2,227,659 tonnes of asphalt mix, including nearly 1,093,218 tonnes of recycled mix, were used for motorway maintenance. Due to harsher weather conditions during the winter, 24,033 tonnes of de-icing salt were used (against 16,396 tonnes in 2016) and enhanced preventive measures were implemented to guarantee user safety.

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 recycled materials that have equivalent performance to new materials, recycling waste produced by business activities (see paragraph 2.2.2) and sourcing local products.

There is also a focus on designing products that use fewer raw materials. VINCI Construction France implements this approach in developing eco-designed housing, offices, student accommodation and other projects. In housing, the Habitat Colonne procedure reduces raw materials consumption.

Arbonis, the subsidiary of VINCI Construction France specialised in timber design and construction, generated revenue of €47 million in 2017 (€45 million in 2016). In 2017, Arbonis gained further expertise in modular timber construction with the brand Arbo 3D, a guarantee of quality for its customers. Arbonis has also developed its know-how in creating multi-storey buildings in wood. A key example is the seven-storey Julien-Cornil student residence built for the regional student services centre in Marseille, France, which was completed in 12 months. The work of Arbonis is contributing to the Group's efforts in advancing towards the energy transition.

Eurovia's Granulat+ programme is its sector's first experiment in industrial ecology and is recognised by France's Ministry of the Environment, Energy and the Sea as a leading initiative in the circular economy. For its first phase adopted at quarries in the Mediterranean area, the aim of the programme is to recover all the resources needed to produce aggregates used in construction. It is based on the combined effort of quarry managers, local waste producers and raw materials users. In addition to its direct benefits, the programme provides a way for regional actors to integrate environmental issues into their processes. Since 2015, Granulat+ has been rolled out and adapted in the Greater Paris region and Haute Normandie. Further strengthening its relations with its stakeholders, Eurovia continued its involvement with the French Circular Economy Institute in 2017. VINCI set up a centralised focus group to advance its study of the circular economy. More specifically, it aimed to find new ways of integrating recycled materials and recycling waste produced by construction activities in line with the French law on the energy transition for green growth. The next step is to set up task forces to develop Group-wide tools or initiatives that can facilitate the operational implementation of the circular economy throughout the project life cycle. A case in point is the Soletanche Bachy worksite for Nice's tramway network, where Eurovia implemented a disposal solution via sea route, developing an innovative logistics system aligned with the tunnel boring machine's rate of progress. The excavation material was then recovered to be used in building a future development area at the Marseille Fos Port.

To gain a better understanding of the environmental impact of raw materials, VINCI collaborates with professional groups to prepare life cycle inventories (LCI) of its materials and works with France's energy, environment and transport observatory (OEET) and the French underground tunnel association (Aftes). Soletanche Freyssinet participates in the Diogen working group focused on environmental databases. The company contributes to developing a life cycle analysis-based methodology for assessing and comparing underground structure building methods, estimating the impact of materials used, making design and construction adjustments, and comparing technical solutions. Eurovia and VINCI Construction France maintained their involvement in Recybeton, France's nationwide collaborative research project to promote concrete recycling.

2.2.1.3 Energy consumption

VINCI actively participates in the debates launched by French and European government authorities on the energy transition, in particular on retrofitting buildings and developing eco-mobility.

In France, the 2012 thermal regulations (RT 2012), which came into effect in 2014, form a major part of the Grenelle environment legislation and seek to encourage low-energy buildings. To meet the new requirements while remaining competitive, 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 is playing a part in preparing the future Responsible Building Regulations (RBR 2020), which are designed to enlarge the scope from energy performance to building sustainability as a whole. Current work is focused on building use and the calculation of overall multi-criteria performance. For example, VINCI Construction France enhanced its Oxygen® solution in 2017 by developing approaches to costs, project phasing and value creation. The company can now proactively offer clear commitments on building energy performance; more reliable technical equipment to guarantee optimal comfort; and asset management monitoring. In addition to these innovations, the Oxygen® offer moved into unexplored territory in 2017, such as housing renovation (Le Levain, Bordeaux) and hotels (Les Clarines, Les Deux Alpes). The Oxygen® suite of guidelines can now be implemented for any design-build project or bid. This new strategy was featured in two conferences at the Commercial Property Exhibition (Salon de l'immobilier d'entreprise, or Simi) in France.

VINCI Energies' activities in facilities management are using their expertise in areas such as energy diagnostics and audits, monitoring and optimisation work to develop energy efficiency contract solutions for their clients through their dedicated structure, Smart Energy.

Within the framework of the Chair in the Eco-design of Buildings and Infrastructure, Mines ParisTech has developed an energy and environmental performance simulation tool, NovaEquer. The tool offers neighbourhood-wide solutions and is available through the startup Kocliko. It can be used by anyone involved in urban planning (contractors, engineers, designers, other companies).

Total energy consumption (including natural gas, propane and electricity), with change

	2017			2016		Change
	Natural gas (MWh)	Propane / LPG (MWh)	Electricity (MWh)	Total energy (MWh) ^(*)		
Concessions	53,381	2,550	349,495	544,288	457,608	+18.9%
VINCI Autoroutes	5,316	1,619	126,834	223,871	227,032	-1.4%
VINCI Airports	47,458	927	206,328	297,875	212,918	+39.9%
Other concessions	607	4	16,333	22,542	17,658	+27.7%
Contracting	1,117,490	2,881	702,925	7,533,703	7,368,471	+2.2%
VINCI Energies	52,815	769	91,402	886,693	859,029	+3.2%
Eurovia	1,032,695	256	321,666	3,849,334	3,675,455	+4.7%
VINCI Construction	31,980	1,856	288,857	2,797,676	2,833,987	-1.3%
VINCI Immobilier	30	-	1,817	4,251	4,662	-8.8%
Total	1,170,901	5,431	1,054,237 <input checked="" type="checkbox"/>	8,082,242 <input checked="" type="checkbox"/>	7,830,741 <input checked="" type="checkbox"/>	+3.2%

(*) The total includes consumption of fuel, natural gas, propane, electricity, heavy fuel oil, coal and used oils.

Data checked to a level of reasonable assurance.

Group companies pay close attention to their energy consumption, the absolute value of which had risen 3.2% at the end of 2017 compared with 2016. In relative terms, Group energy intensity totalled 201 MWh per million euros of revenue for the reporting period, compared with 206 MWh in 2016 and 223 MWh in 2015. This decrease rewards the efforts made by Group companies. Improvements to reporting methods since 2016 have made it possible to consolidate the monitoring of new energy sources, such as propane, and for Eurovia to extend its reporting to encompass liquefied petroleum gas (LPG).

Due to the industrial nature of its business, Eurovia accounts for a large proportion of total energy consumption. It was the first Group business line to set up an ambitious energy and CO₂ reduction plan, including improvements to the energy efficiency of coating plants, quarry equipment and operations buildings. Since 2013, the company has been developing and rolling out the Bridge solution, a dashboard used to monitor energy consumption at different operational levels (delegation, region, etc.). 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%. This asphalt mix represented 13% of French production in 2017 (11% in 2016). In 2017, Eurovia set up local energy committees coordinated by equipment experts who work on scaling back energy consumption at each entity. They also single out best practices and disseminate them throughout the company.

One of the four main goals of the environmental policy developed by VINCI Airports in 2015 is to reduce energy intensity by 20% between 2013 and 2020. To meet this target, VINCI Airports is boosting the energy efficiency measures taken at all its airports in operation. VINCI Airports continued to roll out its environmental policy in 2017, especially at recently acquired airports, including Lyon-Saint Exupéry Airport and Deputado Luís Eduardo Magalhães Airport in Salvador de Bahia, Brazil. It includes an action plan that lets each airport define its own performance targets in line with its activities. Energy consumption and associated greenhouse gas emissions are one of the seven environmental performance criteria.

Fuel consumption, with change

(in litres)	2017	2017	2017	2016		Change
	Diesel ^(*)	Petrol	Total			
Concessions	13,043,268	308,925	13,352,193	12,777,715		+4.5%
VINCI Autoroutes	8,654,502	9,186	8,663,688	8,973,307		-3.5%
VINCI Airports	3,970,641	179,486	4,150,127	3,491,110		+18.9%
Other concessions	418,125	120,253	538,378	313,298		+71.8%
Contracting	484,758,084	19,150,027	503,908,111	494,664,886		+1.9%
VINCI Energies	67,619,248	3,698,785	71,318,033	69,307,751		+2.9%
Eurovia	186,915,815	8,150,886	195,066,701	187,263,150		+4.2%
VINCI Construction	230,223,021	7,300,356	237,523,377	238,093,985		-0.2%
VINCI Immobilier	231,161	-	231,161	217,282		+6.4%
Total	498,032,513	19,458,952	517,491,465	507,659,883		+1.9%

(*) Since 2011, the "diesel" indicator has taken into account diesel and heating oil.

The 1.9% increase in fuel consumption in 2017 is mainly due to the inclusion of new companies in the reporting scope. Group companies continue their efforts to reduce consumption.

VINCI Autoroutes encourages customers to reduce their fuel consumption by organising eco-driving awareness campaigns at motorway rest areas and by developing offers that help make the best use of existing infrastructure, thanks to the VINCI Autoroutes eco-comparison application. To promote carpooling, parking facilities are located near toll plazas to offer a practical meeting point for drivers and passengers. In autumn 2017, 28 car parks providing 2,241 parking spaces were reserved for carpooling, up from 23 car parks with 1,799 spaces in 2016.

2.2.1.4 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 2017, these purchases, at both fixed sites and worksites, totalled 57,793 MWh compared with 15,614 MWh in 2016.

VINCI Energies' business units have expertise in and are expanding their activities in the design, supply, installation and connection to renewable energy power plants. 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 30% of that in Morocco. In 2017, Omexom continued its international expansion, especially in Africa. The company was selected to build eight solar power plants (total of 17 MW) in Senegal over the course of 10 months to supply power to people in remote areas. In Indonesia, Omexom was awarded the contract to build the country's first wind farm, which will have a capacity of 75 MW. VINCI Construction is developing technical solutions to industrialise construction and optimise the installation of onshore and offshore wind farms. This is the focus of the Eolift research project, overseen by Freyssinet. This project won the large-scale wind power call for interest launched by Ademe under the French government's "Investissements d'Avenir" (Investment for the future) programme. Eolift's research and development work continued in 2017.

VINCI Autoroutes has 3,319 renewable energy installations generating solar, thermal and wind power (excluding heat pumps).

2.2.1.5 Land use

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. Some Group companies specialise in ecological engineering, including Eurovia's subsidiary Cognac TP and Equo Vivo, the new brand developed by VINCI Construction Terrassement. They 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, restoring wetlands and waterways with diminished ecological functions, etc. The operations of extraction companies such as Eurovia are likely to have a lasting impact on the land's biological balance. These long-term changes to the biological balance also offer the opportunity to create new environments and bring back new, even protected, species. The initial diagnostics are now improved by taking inventories while infrastructure is in operation to assess the effectiveness of measures that are implemented at sites to protect species. 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.

Extract Ecoterres, 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 230,000 tonnes of sediment a year. Its operations align perfectly with the circular economy and improved use of land.

2.2.2 Waste prevention and management

VINCI's general policy is based on a circular economy model and focuses on three aims: producing less waste at the source; waste sorting and traceability; and recovering waste to use as a resource. Waste management is important to both Contracting entities – which deal mainly with construction site waste – and Concessions entities, which have to dispose of their customers' 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 assesses the overall effectiveness of its waste management each year by monitoring the volume of waste generated and the results for recovery facilities.

Since the green motorway package was introduced, all of the rest areas along VINCI Autoroutes motorways have been equipped with sorting bins. In line with the Group's eco-design policy, the focus is turning to raising the awareness of VINCI Autoroutes motorway users and encouraging them to sort their waste. Once sorted, waste is delivered to external recovery and treatment facilities; 68.5% of VINCI Autoroutes waste was recovered in 2017 versus 66.5% in 2016. VINCI Construction UK maintained a high waste recovery rate in 2017, i.e. 93% (98% in 2016). In France, the Revalo programme was instituted 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. The Optidéchets platform was expanded and covered 200 worksites in 2017. This solution 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 report for its customers. The waste recovery rate stood at 75%, surpassing the French and European regulatory requirements of 70%. In 2017, VINCI Construction France joined Circolab as a founding member. The organisation promotes the circular economy, focusing on the reuse of construction materials.

Hazardous and non-hazardous waste

(in tonnes)	2017					2016				
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	VINCI Construction(*)	VINCI Autoroutes	VINCI Airports(**)	Other concessions	VINCI Energies	VINCI Construction(***)
Non-hazardous waste (customers + operations)	18,777	12,559	2,464	397,996	567,145	17,412	12,722	1,830	357,146	316,385
Hazardous waste (customers + operations)	784	1,355	153	4,019	16,483	1,225	469	197	2,242	457

(*) Scope includes VINCI Construction UK and 50% of the revenue of VINCI Construction Grands Projets.

(**) Scope does not include the airports in Cambodia.

(***) Scope is limited to VINCI Construction UK.

Recycling has been a priority at Eurovia for some 20 years and 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 130 platforms that recycle most of the waste produced by worksites. In 2017 the company forged ahead in its transition to promote the circular economy and recycling in its business. Eurovia's Canadian business created a catalogue of recyclable asphalt mixes to convince customers of the quality of the process and of recycled materials. The company has set a target to exceed 20% of reclaimed asphalt pavement in its total asphalt mix production. The percentage stood at 13.5% in 2017 in France, making Eurovia the market leader in this field. Also in France, the technical teams from Eurovia and the ASF motorway network joined forces to experiment with second-generation recycling on a busy section of motorway. This experiment is the first step towards the "infinite" recycling of asphalt mixes, which could eventually lead to the very sustainable development of motorway infrastructure. The project was chosen by the final jury as the sustainable development prize winner at the VINCI 2017 Innovation Awards.

Waste recycling and recovery at Eurovia, with change

	2017			2016		
	World	2017/2016 change	France	2017/2016 change	World	France
Percentage of asphalt mix made with reclaimed asphalt pavement	16.0	+1%	13.5	0%	15.9	13.5
Production of recycled material (in millions of tonnes)	5.6	-13%	4.6	-12%	6.4	5.2
Total recycled material as a percentage of total aggregate production	6.5	+48%	7.9	-14%	4.4	9.2

The law introduced by the French government to combat food waste does not have a significant impact on VINCI's activities, as the Group does not directly manage any catering enterprises. However, Group companies take action when possible, and its concession companies that are in direct contact with clients and users put measures in place. For motorway users who are immobilised due to incidents on the network, VINCI Autoroutes prepares food boxes (VINCI Box). Food boxes nearing their sell-by date are given to non-profit organisations that help disadvantaged people. In another action, the Stade de France set up a partnership with Le Chaînon Manquant. The day after every event at the Stade de France, this non-profit organisation collects sandwiches and desserts that have been maintained in the cold chain.

2.2.3 Measures to prevent and reduce pollution

2.2.3.1 Air pollution

VINCI companies focus on issues concerning both indoor and outdoor air quality. The VINCI business lines most concerned with the problem of atmospheric emissions are the Concessions business and the Eurovia and VINCI Construction business lines. In Concessions, especially VINCI Airports and VINCI Autoroutes, most air emissions are generated by users of cars, trucks, aircraft, etc. To reduce traffic congestion and combat air pollution, VINCI Autoroutes has introduced speed limitation measures. 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 reduces up to 75% of nitrogen oxides for local residents; it has also been adapted and combined with noise barriers to abate noise pollution as well. VINCI Construction France and the facilities management activities of VINCI Energies are developing new techniques that guarantee air quality in the buildings they build and operate. VINCI Construction France is moving forward with its indoor air quality management plan that integrates this factor into each project from the briefing phase until after handover.

2.2.3.2 Noise and light 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 changing 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, which substantially reduces road traffic noise, was laid along a section of the A10 motorway near Orléans, France. For its project to extend Paris metro Line 12, VINCI Construction set up a "truck-free" worksite, using two-way underground and waterway transport to reduce noise pollution for local residents.

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.

Noise levels on motorways in France are measured regularly to enable VINCI's motorway concession companies to identify and reduce noise black spots. Homes may then be protected using noise insulation in their facades, or noise barriers or embankments planted with shrubs or trees. In 2017, 897 new homes were protected from noise on VINCI Autoroutes motorways, making a total of 5,208 since 2010.

The Group deploys a variety of solutions to combat light pollution. Citeos (VINCI Energies) has incorporated measures into its contracts under which it operates public lighting networks. These measures include efficient anti-light pollution equipment, smart lighting systems, automatic shutdown of certain light sources, and respect of "dark corridors" provided for in lighting plans to reduce the impact on biodiversity. VINCI Autoroutes raises its employees' awareness about reducing light pollution in bat habitats and includes these environmental requirements in its contracting agreements.

2.3 Combating climate change

In 2007, VINCI initiated a proactive programme to reduce and control greenhouse gas (GHG) emissions and to anticipate and monitor legislation worldwide. The impact of current carbon emissions regulations on VINCI's activities is mainly indirect. VINCI has nine facilities that are subject to phase III of the European emissions trading scheme's National Allocation Plan (see page 172) and must comply with the Carbon Reduction Commitment in the United Kingdom. VINCI Autoroutes continued to work on the impact of CO₂ on its business activities and supports the actions of the Shift Project. New regulations are opening up opportunities for VINCI, whose companies now offer their customers climate-adapted solutions that enable them to reduce their own GHG emissions. VINCI has been committed to green growth since 2012, with a target to reduce GHG emissions by 30% by 2020. This target covers the Group's like-for-like Scope 1 and 2 CO₂ emissions and uses 2009 as its base year (the first year when coverage exceeded 90%). The Group is also taking initiatives to reduce its customers' energy emissions in the Concessions businesses that monitor their Scope 3 emissions.

2.3.1 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. 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 2017 amounted to about 2.7 million tonnes based on the new methodology and updated emission factors (2.3 million tonnes of CO₂ equivalent based on the emission factors applied up to 2015). The 32 French subsidiaries of VINCI concerned apply Article 75 of the Grenelle II Environment Act, which requires companies to conduct GHG emission audits and define action plans to reduce their emissions. These audits, all renewed in 2015, must now be performed at four-year intervals. The Group's emissions are calculated using factors included in the carbon database of Ademe.

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

	Actual values (emissions updated based on new emission factors)	Monitoring of reduction target (applying previous emission factors)	2017/2016 change	
	2017	2017	2016	
<i>(In tonnes of CO₂ equivalent)</i>				
Concessions	165,495	147,349	117,998	+24.9%
VINCI Autoroutes	39,485	32,133	32,884	-2.3%
VINCI Airports	121,052	110,780	81,853	+35.3%
Other concessions	4,958	4,436	3,261	+36.0%
Contracting	2,499,909	2,169,363	2,114,315	+2.6%
VINCI Energies	259,069	221,791	215,007	+3.2%
Eurovia	1,306,120	1,146,892	1,057,672	+8.4%
VINCI Construction	934,720	800,680	841,636	-4.9%
VINCI Immobilier and holding cos.	888	735	730	+0.7%
Total	2,666,292 <input checked="" type="checkbox"/>	2,317,447 <input checked="" type="checkbox"/>	2,233,043 <input checked="" type="checkbox"/>	+3.8%
Carbon intensity (tonnes of CO₂ equivalent per million euros of revenue)	-	57.6	58.7	-1.9%

Data extrapolated to cover 100% of VINCI's revenue – excluding acquisitions in 2017.

Data checked to a level of reasonable assurance.

The Group's direct emissions (Scope 1 and 2) rose slightly compared with 2016 using the methodology that applies the same emission factors from one year to the next to monitor the reduction target. This increase in emissions results from the extension of reporting to new energy sources and more reliable monitoring of these sources, which reflects the continuous improvement in reporting to monitor the Group's emissions. New companies were also included in the reporting scope in 2017. Carbon intensity in tonnes of CO₂ equivalent per million euros of revenue fell slightly to 57.6 tCO₂eq. Since 2009, when the figure stood at 71 tCO₂eq, carbon intensity has decreased 19%. These figures have fallen due to the many measures taken over the past few years to control and reduce carbon intensity.

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 Scope 1, 2 and 3). At the end of 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 in 2017 was applied to better quantifying Scope 3, especially through the use of a purpose-designed reporting tool. 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 doing so, the Group will not only meet the requirements of Article 173 of the French law on the energy transition for green growth but will also gain more insight into its carbon impact throughout the value chain and contribute to the objectives of the Paris Agreement signed in 2015.

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

	VINCI Autoroutes	VINCI Airports ^(*)	VINCI Autoroutes	VINCI Airports ^(*)
	2017	ACA 2017	2016	ACA 2016
<i>(tonnes of CO₂ equivalent)</i>				
ISO Scope 1 and 2 emissions	39,485 ^(**) <input checked="" type="checkbox"/>	45,328	40,319 ^(**) <input checked="" type="checkbox"/>	58,825
User/third-party emissions (Scope 3)	13,865,424 <input checked="" type="checkbox"/>	764,182	13,054,556 <input checked="" type="checkbox"/>	699,199

^(*) ANA scope, year Y-1 emissions taken into account in the Airport Carbon Accreditation (ACA) of year Y.

^(**) Emissions based on the new methodology using Ademe's 2015 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 71,390 tonnes over the year (66,395 tonnes in 2016), or 282,189 tonnes since they opened in 2010. The carpooling spaces provided (see paragraph 2.2.1.3) avoided more than 15,000 tonnes of CO₂ in 2017. VINCI Airports operates 27 of the 209 airports with Airport Carbon Accreditation (ACA) certification in the world, including all 10 ANA Group airports in Portugal at Level 2 (Reduction). Lyon-Saint Exupéry Airport reached Level 3+, carbon neutrality, which is the highest certification level in the ACA programme. In 2017, the company also quantified its Scope 3 emissions and had them verified for 2016.

Investors have responded positively to the measurement of GHG emissions and actions taken to reduce them. In 2017, for the eleventh year running, VINCI confirmed its leadership position in France regarding climate strategy. The Group was again included in the Carbon Disclosure Leadership Index (CDLI) France in 2017, as it obtained level B for its response to the Carbon Disclosure Project (level B in 2016). This project, which is conducted on behalf of 827 investors representing \$100 trillion in assets under management, assesses how large companies are responding to climate change.

2.3.2 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, particularly through eco-design projects in which studies span the structure's whole life cycle. Similarly, VINCI companies use scientific scenarios predicting a 50 cm rise in sea levels by 2050, according to the Intergovernmental Panel on Climate Change (IPCC). Although they cannot take action regarding political strategy on receding coastlines, they are developing expertise in technical improvements, notably to strengthen sea walls. 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. It carries out extensive research, both internally and through its scientific partnerships, on adapting neighbourhoods to heat waves, handling urban heat spots and developing urban resilience.

VINCI conducted an internal study in 2017 to assess the impact of extreme weather events on the Group's business. Due to their growing frequency, these 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. Leonard, the new cross-functional platform dedicated to insight, innovation and forward thinking at VINCI, launched the Infrastructure and Resilience task force, bringing together a number of Group experts.

2.3.3 Reduction targets and resources implemented

Group companies have introduced ambitious policies to achieve the target of reducing greenhouse gas (GHG) emissions 30% by 2020. Due to this policy, Eurovia is one of the 33 companies selected by the Association Bilan Carbone to work on the GHG emissions management system (the actions taken are detailed in paragraph 2.2.1.3). As part of its work in this area, since 2016 Eurovia has developed and deployed a new 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. A number of solutions have also been developed to reduce emissions, such as the plant-based fuel Dertal G. The 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. After one year in use and 150,000 tonnes of asphalt mix produced, no heavy metal or polycyclic aromatic hydrocarbons (PAHs) were detected in the air.

Other 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. 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 impacts at any point in the life cycle of its structures. LCA tools, primarily developed within the framework of the Chair in the Eco-design of Buildings and Infrastructure, are used in numerous subsidiaries. The CO₂NCERNED methodology developed by VINCI to measure a project's carbon footprint is deployed across all Group business lines to assess construction options at VINCI Construction, the effectiveness of solutions at VINCI Energies and motorway routes in the Concessions business, and to optimise the carbon footprint of rail infrastructure.

VINCI is an active member of national and international working groups within its industry (Association Bilan Carbone and Encord) that are defining standards for quantifying Scope 3 emissions. Under this approach, success depends on relationships with end customers. The VINCI Autoroutes eco-comparison application available on its website calculates the amount of CO₂ motorists could avoid emitting. VINCI Construction shows building occupants how they can consume less energy through its Oxygen® guidelines. VINCI Construction France and the facilities management activities of VINCI Energies continued to work together in 2017 to develop the Oxygen® energy performance guarantee for the in-use phase of buildings.

2.4 Biodiversity conservation

2.4.1 General biodiversity policy

The Biodiversity Task Force, which implements the Group's biodiversity policy, brings together about 40 ecology experts and environment managers from the Group's different activities. 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. VINCI has developed a Group-wide network of more than 500 biodiversity coordinators, who come together once a year in a day-long meeting to discuss technical issues. In 2017, some 100 people attended the meeting, which focused on solutions that business lines could implement to avoid and reduce impacts on biodiversity.

Five years after the Biodiversity Task Force was formed, a number of Group-wide initiatives have been launched at the Group's business lines. Four thematic working groups – focusing on stakeholder relations, offset strategy, environmental monitoring methods and the mapping of natural areas – were set up in 2017 to share tools and best practices.

2.4.2 Measures to promote biodiversity

Several Group companies with long-cycle business activities that directly impact natural environments – notably those involved in the concession-construction of transport infrastructure (motorways, airports), earthworks and quarries – have been deploying a biodiversity action plan for many years.

Measures to avoid and reduce impacts on natural environments or, lastly, to offset residual impacts are developed and applied in partnership with the most appropriate stakeholders, depending on the project, location, species and ecosystems. Across all VINCI companies, more than 300 partnership agreements on biodiversity issues with non-profit organisations, research centres and engineering and design firms were signed or in effect in 2017.

To maintain a continuous hands-on approach, the Group gave special focus to deploying training and awareness modules on biodiversity issues in 2017. At VINCI Concessions, 121 people have taken the Biodiversity and Stakeholders training course since 2013. Eurovia has integrated specific modules on biodiversity into its training programmes for young quarry and technical engineers and its environmental regulations training for operational staff. At certain worksites, “15-minute biodiversity sessions” were introduced to make sure that employees understand and properly take into account the signage used concerning biodiversity. As part of its Attitude Environnement label, VINCI Construction France continued rolling out its training modules on factoring biodiversity into projects, especially in urban settings. A technical manual on green roofs is also provided for company employees. VINCI Construction Grands Projets devoted a large portion of its environmental training programme to biodiversity conservation. Several sessions of this programme were held in 2017.

Operators of linear infrastructure concessions are primarily concerned with the fragmentation of natural habitats, focusing their efforts on the ecological transparency of their infrastructure, the reversibility of barriers and the restoration of ecological connectivity. This includes creating ecological engineering structures, re-profiling ponds, making improvements to hydraulic structures, restoring and enhancing sites of ecological interest, redeveloping slopes, sustainable roadside grass mowing, and so on. VINCI Autoroutes works to keep users informed at the environmental awareness spaces it sets up at rest areas along summer routes for its Étapes Estivales programme, and invited children from nearby schools to visit wildlife crossing construction sites.

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 85.8% decrease in their use since 2008.

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

	2017	2016	2015
Crossings for small and large wildlife (in number)	883	806	783
Fenced sections (in km)	8,651	8,543	8,497

The main biodiversity issue faced by Eurovia is the production of aggregates at quarries currently in operation or during the site rehabilitation phase. To focus on this issue, Eurovia established a partnership with the natural heritage department of France’s Natural History Museum (MNHN) in 2012, which was renewed in 2017. They developed a methodology used to analyse natural environments and a study of 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.

At these sites, Eurovia implemented an assessment methodology designed by the MNHN to determine their ecological potential and environmental quality index (IQE). This approach helps define actions to improve how biodiversity is taken into account during both operation and rehabilitation phases. In addition to the MNHN, other local partners (non-profit organisations such as those approved as Permanent Centres for Environmental Initiatives) have gradually been trained and authorised to use this methodology. The IQE was tested on 20 quarries from 2013 to 2016 and was extended to six additional sites in France in 2017.

Eurovia’s biodiversity indicators specific to quarries

	2017	2016	2015
Quarries that have set up a CLCS ^(*)	39%	19%	52%
Quarries that have formed partnerships with local naturalists	34.80%	25%	30%
Quarries that have joined the Unicem Environment Charter ^(**)	47.05%	72%	79%
Number of data on flora and fauna sent to the INPN by Eurovia quarries ^(***)	12,120	9,800	11,162

(*) Commission Locale de Concertation et de Suivi (local consultation and monitoring commission).

(**) National Union of the Quarrying and Construction Materials Industries.

(***) Inventaire National du Patrimoine Naturel (national inventory of natural heritage).

In 2017, over three out of four VINCI Construction Terrassement worksites put up signs with information on biodiversity issues. The company won around 15 new contracts for ecological engineering projects. More than 25 operational staff members (site managers and machine operators) gained and developed significant experience in biodiversity conservation techniques and methods.

Going forward with the biodiversity expertise it has gained over the past years, in September 2017 VINCI Construction launched Equo Vivo, an ecological engineering services offering dedicated exclusively to conserving and restoring biodiversity, designing and carrying out environmental improvements and maintaining ecological connectivity. Equo Vivo was created to serve both local public entities – such as local government authorities and river basin agencies – and private organisations to meet their needs in regional development while responding to the growing importance of environmental issues.

The environmental policy at VINCI Airports includes a section on biodiversity conservation that involves conducting an assessment of biodiversity issues at all the Group's airport sites by 2020. This assessment can then be applied to adapt action plans to the local context, primarily addressing wildlife hazards. The methodology and assessment tool were completed in 2017, and initial studies were led at Nantes Atlantique, Clermont Ferrand Auvergne and Grenoble Alpes Isère airports.

2.4.3 Sponsorship, research and development 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 Sèvres, Charente, Charente Maritime and Gironde.

Number of new projects supported by the LISEA Biodiversity Foundation by topic and per year

	2016	2015	2014
Restoration and environmental protection	4	12	11
Applied studies and inventories	7	22	15
Training and awareness initiatives	16	13	4
Total	27	47	30

Under the sponsorship programme of the Chair in the Eco-design of Buildings and Infrastructure, the students of AgroParisTech have developed a number of tools and solutions designed to conserve biodiversity in the urban environment.

Biodi(V)strict® is a diagnostics and decision-making tool used to measure the biodiversity potential of an urban or peri-urban development project. This solution is the result of a collaborative project that teamed up urban development experts with scientists under the partnership between VINCI, VINCI Construction France and AgroParisTech within the framework of the VINCI-ParisTech Chair initiated in 2008. A Biodi(V)strict® study of a construction or renovation project determines points that can be improved and suggests ways to promote local plant and wildlife. Biodi(V)strict® is used for projects under public-private partnerships, development or design-build projects and can be applied at various project stages (planning, design, bidding, etc.). This tool has been used on 27 VINCI Construction France projects since 2014 and was tested as part of the implementation of HQE Performance standards for housing, offices, retail space, schools and university campuses. This work led to the creation of the urban biodiversity startup Urbalia in late 2017. Urbalia benefits from unique expertise with Biodi(V)strict® and has permanent access to scientific-based evidence that it can use to continuously enhance its services.

The Chair's research on urban agriculture was published in 2017 and applied to Group programmes relating to this area, especially to develop new dedicated solutions. The thesis entitled "Technosols built using urban waste: ecosystem services and evolution", presented in December 2017, offers guidelines for VINCI companies that want to develop productive green roofs on buildings.

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.

2.5 Prevention and restoration

2.5.1 Legal and regulatory compliance

In regard to France's Grenelle II Environment Act, VINCI implements processes to comply with changing legislation. Special IT tools for managing regulatory and QHSE risks are also used, such as VINCI Energies' Préventéo®, which supports regulatory monitoring and the standardisation of criteria for the Group's regulatory audit. The Group pools this expertise and environmental regulation monitoring efforts within cross-business working groups.

2.5.2 Prevention of environmental impacts and associated costs

Expenditure on protecting the environment (e.g. soil remediation at Soletanche Bachy, cleaning and decontamination of structures at Freyssinet and recovery of organic materials at VINCI Environnement) is generally included directly in each project's operating expenses and is not consolidated centrally.

Environment-related expenditure by VINCI Autoroutes companies

(in € millions)	2017	2016	2015
Annual environmental investment	154	100	66
Annual spend on the upkeep of natural areas	23	23	26
Insurance premiums to cover environmental risks	0.38	0.37	0.33

Expenditure on the environment by VINCI Autoroutes (investment and maintenance) rose in 2017 compared with 2016 with the continuation of the motorway stimulus plan.

2.5.3 Environment provisions and guarantees

See "Environmental, technological and cyber risks" in chapter D, "Risk factors and management procedures", pages 171 and 172 of the Report of the Board of Directors.

2.5.4 Damages paid in 2017 following legal decisions on environmental matters and lawsuits filed for damage to the environment

Legal decisions regarding the environment are handled directly by the business units concerned and the amounts paid are not consolidated at Group level. No VINCI companies appear to have paid any significant damages in 2017 subsequent to a court decision on an environmental matter.

3. Social information

3.1 Regional, economic and social impacts of VINCI's activities

3.1.1 Contribution to regional economic and social development

3.1.1.1 Group companies with strong local roots

VINCI is made up of a network of local companies that have long-established roots in their operating regions (nearly 70% of Group companies have fewer than 100 employees). Owing 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. In 2017, VINCI had operations in over 100 countries through more than 1,400 companies.

Size of Group companies by number of employees at 31 December 2017

	2017								
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding companies	Total	
From 1 to 99 employees	1	10	12	534	165	268	6	996	68%
From 100 to 499 employees	-	3	4	169	65	150	1	392	27%
More than 500 employees	3	4	1	17	21	30	1	77	5%
Total	4	17	17	720	251	448	8	1,465	100%

3.1.1.2 Promoting the sustainable development of regions

Always taking a long-term perspective, VINCI companies design, finance, build and operate bridges, tunnels, roads and other infrastructure in the public interest that contributes to the sustainable development of regions. Group companies therefore take part in actions that structure territories and help improve their coherence. As key contributors to economic and social growth, VINCI companies play a major role in regional development, in both urban and rural areas. 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.

Apart from economic contributions in the form of locally generated revenue and tax payments by companies at local level, the types of activity pursued by the Group promote the growth and attractiveness of regions through the construction or upgrading of infrastructure and facilities. In addition, at a time when the requirements of customers – especially those of public sector or quasi-public sector customers, which generated €13.3 billion in revenue for VINCI in 2017 (more than 33% of total revenue) – are increasingly focusing on the environmental and social impacts of projects, Group companies are placing considerable emphasis on taking into account the external factors tied to their activities. They are constantly working to provide innovative solutions, particularly in terms of energy performance, the design of urban eco-districts, promoting the sustainable city, as well as mobility and end-user services.

In 2017 VINCI participated in a working group organised around the theme “Co-construction of relationships between businesses and communities” that was launched by the sustainable development consultancy, Utopies©. The working group brought together 11 large companies in order to discuss the strategic and practical approaches that may be used by them and their peers to drive the growth of sustainable entrepreneurship opportunities at the local and regional levels. In fact, VINCI companies are already contributing to successful economic development and working to improve economic vitality in the areas where they operate, notably by forging relations with local startups and pursuing open innovation initiatives.

For many years, VINCI Concessions has worked closely with startups on the development of pilot projects to test and evaluate new services for customers and new approaches to improve the user experience. VINCI Airports, which has initiated many such projects, began testing Business in the Air at the Porto and Lisbon airports in May 2017. This application feature helps business passengers awaiting their flights find and establish new professional contacts or even organise meetings at the airport via their LinkedIn profiles. The Portuguese startup Business in the Air was one of the four top picks that emerged from the VINCI Startup Tour, a Europe-wide competition launched in November 2015. Benefits for the selected winners include assistance from experts and the opportunity to test their innovations under real conditions, thereby exploring the potential for the rollout of their solutions on a larger scale. Also in 2017, Rhônexpress SAS, the company operating the fast link between Lyon-Saint Exupéry Airport and the city centre, in which VINCI Concessions is one of three shareholders, launched the first phase of its call for projects. Under the name Rhônexpress Innovative U-X, the aim is to identify innovations to improve the user experience. Of the 12 selected startups, three were named as winners in March. The LISEA Carbon Foundation organised the LISEA Startup Contest, in partnership with Bordeaux Métropole, the intercommunal structure bringing together the city of Bordeaux and surrounding communities, and the Nouvelle Aquitaine region. This competition relates to the development and implementation of a digital solution to help solve the “last mile” problem for passengers using the Bordeaux-Saint Jean train station. The three winning startups have been testing their solutions since October 2017 in the area covered by Bordeaux Métropole. VINCI Energies launched La Factory in 2017, a space dedicated to innovation where its teams can come together to work out concepts, exchange ideas and co-construct its future offerings alongside startups as well as the Group's partners and customers. La Factory houses VINCI Energies' brand management staff, its teams focusing on the service sector and smart cities, its Development and Innovation department, and has a number of startups in residence. For the second consecutive year, VINCI Energies was also a partner of the Viva Technology event in Paris, which brings together startups and business leaders from around the world to celebrate innovation, where it hosted the Digital Industry lab. Lastly, among other initiatives to promote innovation, VINCI launched Leonard in 2017; this new cross-activity platform dedicated to insight, innovation and foresight is open to both Group employees and partner startups.

3.1.1.3 Social and economic impact of VINCI's activities

For several years, VINCI companies have had access to tools developed by the Group to measure the social and economic effects of their projects. They have applied this type of assessment to specific sites as well as projects for infrastructure, facilities, upgrades and other works. These studies allow companies not only to highlight the operations being carried out, but also to better take into account the operating environment and adapt their strategies for upcoming phases. They are also helpful when engaging in dialogue with local and regional stakeholders and other key actors (elected officials, business leaders, etc.).

In 2012, 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 partnership with the concession grantor, SNCF Réseau, designed to record socioeconomic 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 high-speed rail line as they relate to geographical mobility, the local economy and regional development. This monitoring unit involves the participation, alongside the concession company and grantor, of French government agencies, regional and local authorities, chambers of commerce, universities, and all other stakeholders legitimately considered as experts in the chosen research areas.

Among other initiatives, studies have been carried out since 2014 by an external partner to measure the direct, indirect and induced impacts of both planned and ongoing operations, using the Local Footprint® tool developed by Utopies©. This type of study was conducted on:

- the Solignac sur Loire quarry and the quarries managed by Jalicot (Eurovia);
- the project to upgrade the Bambeto roundabout, in Guinea;
- the Stade de France operation;
- the airports operated by VINCI Airports in France;
- the future works and operational phases of the western Strasbourg bypass;
- the T3C section of Line 15 South, together with a validation of the consortium's Grand Paris SME strategy.

3.1.2 Contribution to employment, local skills development and social integration

In terms of employment, the activities of Group companies contribute to the creation of direct jobs, indirect jobs (temporary employment and subcontracting) and induced jobs. In addition to furthering local employment opportunities, VINCI companies help to support regional development through training initiatives and social integration of the long-term unemployed. Internationally, and particularly in emerging economies, they also promote local skills development, focusing their efforts on both production and managerial staff.

3.1.2.1 Employment and local skills development

As they are highly labour intensive, VINCI's Contracting activities (the Energy, Construction and Roads business lines) have substantial direct, indirect and induced effects on regional employment. For employment at its worksites, the Group encourages the use of local resources, thus contributing to training efforts in 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, promotes regional development and is encouraged by all Group companies.

In Africa, Sogea-Satom, 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. In 2017, more than 70% of Sogea-Satom's managers were from the continent, accounting for 40% of agency directors and 90% of supervisory personnel working in Africa. In addition, the year saw further growth for the Africa Pro campus, established in Morocco by the company in 2015 to expand training opportunities for its employees in Africa and reinforce the company's shared culture; the campus has now enriched its programme of training courses. Sogea-Satom also recently joined several networks on the continent with the aim of forming a federation of local training organisations in order to broaden its pool of trainers. In recognition of this new initiative, the campus was invited to take part in the second edition of the Journées Nationales des Ressources Humaines (JNRH), a national human resources management symposium held in Benin in July 2017.

VINCI Construction Grands Projets 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 2017, new Skill Up training centres were set up in three countries: Egypt, Chile and Cambodia. With courses delivered to over 370 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 dealt with various subjects, such as slinging, scaffolding, shuttering and the use of concrete pumps. During the summer, a Skill Up trainer worked with Inacap, a technical university and vocational training institution in Chile, to train future trainers.

VINCI Airports Academy, which helps disseminate the company's shared culture as well as its specific know-how, continued its international rollout, in particular by expanding its offering of e-learning modules.

Lastly, VINCI Construction put in place an internal training course entitled "La ville sous la ville" (The City under the City) in response to the unusual nature of the sites for the Grand Paris project and the company's considerable experience in this type of project. The course aims to foster a culture of special and underground works, thereby anticipating its needs in the area of skills development for its employees in relation to very specific techniques. The first session of this course opened in July 2017. An introduction to the course is provided as an e-learning module, which may be accessed by all staff.

3.1.2.2 Social integration

In France, public procurement contracts include social integration clauses requiring the recruitment of the long-term unemployed. The French construction industry accounts for 70% of these clauses, corresponding to between 2 and 3 million work hours per year for VINCI companies. To help companies honour their commitments in this area, VINCI created ViE in 2011, the Group's social integration entity specialising in employment. ViE recruits locally and currently covers 90% of France.

Activity of the ViE social integration entity, and change

	2017 ^(*)	2016	2015	2017/2016 change
Number of people benefiting from social integration measures	1,941	2,157	2,105	-10.0%
Number of hours of integration employment	777,238	921,135	719,864	-15.6%
Number of hours of training	22,852	16,716	13,800	+36.7%

^(*) Data provided reflects information at 30 November 2017.

To help those benefiting from social integration measures build their skills, ViE seeks to lengthen their periods of employment with the Group. In 2017, about 23,000 hours of training were delivered, an increase of 36% compared with 2016, together with 5,670 hours corresponding to the Group's 15-minute safety sessions. Furthermore, 18% of people taken on under social integration clauses were offered an additional contract once their first project was completed (14% in 2016, 12% in 2015, 15% in 2014 and 2013, 12% in 2012). Over the year, 495 of the 1,941 people benefiting from these measures (more than 25%) were subsequently hired by the Group or one of its subcontractors. The decrease in the number of hours of integration employment in 2017 is due to the completion of certain projects with which ViE was associated. Lastly, for the past two years, ViE has been working on the STEP programme in the metropolitan area of Lille in order to offer long-term unemployed people the possibility of finding work by improving their employability. Currently, this programme receives no public funding and is based on innovative training and support methods that enable people to develop their personal and organisational skills as well as certain technical competencies that are transferable to all types of work at a basic level.

Several Group entities are also applying this proactive approach to promote employment and integration at local level. For example, in connection with the A9 rerouting project at Montpellier, completed in 2017, VINCI Autoroutes had entered into a partnership agreement in September 2013 with the regional office of the French national job agency Pôle Emploi and the regional directorate for enterprises, competition policy, consumer affairs, labour and employment (Direccte). VINCI Autoroutes thus included integration clauses in each of its calls for tender, enlisting the participation of all contractors in this action on behalf of the region. VINCI Autoroutes agreed to ensure that 8% of the total number of hours worked would be performed by priority populations: the long-term unemployed, young people with few or no qualifications, welfare recipients, older employees, etc. At end-September 2017, more than 2,500 integration contracts had been signed, representing nearly 224,000 hours worked, or 156% of the initial target set and close to 4.7% of the total number of hours worked on this project. The long-term unemployed (individuals unemployed for more than 12 months) accounted for 61% of those recruited, while 19% were people under the age of 26. These very positive results confirmed the strong commitment of the A9 rerouting project to the local economy and regional development.

3.1.2.3 Relations with educational institutions

Even during periods of economic difficulty, VINCI companies recruit new staff and therefore 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 degree programmes, 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, schools, universities and other institutions of higher learning. Group employees play an important role in these relationships by serving as sponsors or mentors, giving presentations and organising visits, among other actions. VINCI also lends its support to 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.

For example, VINCI is the sponsor of the class of 2018 at École des Ponts, one of the three ParisTech engineering schools. Partnerships have also been forged with French engineering schools outside the Paris region (Icam Lille, INSA Strasbourg, Polytech Clermont). The regional Pivot Clubs, which bring together human resources managers from across the Group, provide essential support in furthering these initiatives.

Several of the Group's subsidiaries are developing their own networks of relations with educational institutions in the regions where they operate. Eurovia, which has long been a partner of the Paris engineering school ESTP, decided this year to sponsor the school's newest class of engineering students for the 2017–2020 period. Its aim is to forge personal relationships with each and every student thanks to the involvement of nearly 200 of its employees who will offer one-to-one mentoring. Over the course of their studies, students will thus be able to deepen their real-world business knowledge in areas such as accident prevention, innovation and international operations. Eurovia's sponsorship aims to demonstrate its growth, wide-ranging business activities and company culture to these future engineers.

VINCI Construction also maintains close ties with the academic community, especially with top French engineering schools (CentraleSupélec and ESTP) and universities in other countries. The company supports 10 universities across Asia, particularly in Hong Kong, Malaysia, Singapore, Thailand and Vietnam. In 2017, new partnership agreements were signed with three institutions: the University of Malaya in Kuala Lumpur, Ho Chi Minh City Polytechnic University and the National University of Civil Engineering in Hanoi. In Latin America, VINCI Construction continues to develop its partnerships, notably with the National Autonomous University of Mexico and the country's National Polytechnic Institute, the National University of Colombia and the Antioquia School of Engineering in this same country, and the University of Chile. In addition, the company signed a new agreement with the Pontifical Catholic University of Chile on 24 October 2017. Lastly, VINCI Construction frequently takes part in forums, events and conferences organised by academic institutions across Europe and around the world. Each year, dozens of graduates from these top universities and schools join the Group's companies.

In Africa, Sogea-Satom supports several educational programmes at a number of engineering schools, including École Polytechnique de Dakar in Senegal, Institut Supérieur de Technologie d'Afrique Centrale (Istac) in Cameroon and Institut International d'Ingénierie de l'Eau et de l'Environnement (2IE) in Burkina Faso. In 2017, Sogea-Satom signed a partnership agreement with Centrale Nantes and the International Campus for Sustainable and Innovative Africa (Icsia) in Mauritius to sponsor two female African students admitted to Icsia's Bachelor of Science (Hons) in Engineering programme in September 2017. Similarly, following the signature of an agreement with the University of Douala in support of Parts I and II of its QSE Masters degree programme, two students began working in January 2017 with Sogea-Satom's QHSE team in Cameroon and completed a number of practical internships at its various project sites during the year.

Other innovative initiatives are being rolled out for students and young graduates. For example, VINCI Energies held a Young Talents Day recruitment event at The Factory in November 2017. Nearly 400 internships were on offer, both within and outside France, for final-year students at engineering, business, management and computer science schools. Over 700 students submitted their applications in advance via the website www.youngtalentsday.com. At the event, the selected applicants were able to discuss their interests and plans with senior managers and other professional staff members on hand to advise them. VINCI companies also frequently reach out to students through events organised at their universities and schools. In 2017, Eurovia, VINCI Construction and VINCI Energies joined forces to organise a VINCI Day event for students at HEI Lille and Icam. The aim was to raise the profile of the Group among engineering students at the two institutions by sharing information and answering their questions about its business activities and corporate culture.

3.2 Relations with civil society stakeholders, non-profit organisations, local residents, users and consumers

3.2.1 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. Public authorities have responsibility for decisions on transport and energy infrastructure and on facilities to improve the living environment, including where they are to be located. However, VINCI companies serve as a liaison with local communities, residents living near the structures they build, non-profit organisations and users. In order 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. Interactive websites developed specifically for major projects round out and help 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. As an example, Omexom (VINCI Energies) has launched a project, the first of its kind in France, with SDE 18, the authority that is in charge of energy supply for the Cher administrative department, for the collective generation and on-site consumption of electricity from renewable sources. The project was made possible by involving local and regional stakeholders in a co-construction process. Similarly, VINCI Immobilier is developing innovative solutions to better gather, analyse, understand and take into account the expectations of future buyers at an earlier stage in their processes, with a view to offering homes and configurations precisely tailored to the needs of these customers. For example, the company has partnered with the new startup HabX, an online platform leveraging a range of digital technologies to meet the needs of homebuyers, for three of its property development programmes. With HabX, the roles are reversed: the buyers conceptualise their new homes. By accessing a website set up for the property development programme, future occupants are able to configure their own living spaces – dimensions and layout, exposure, floor, number of rooms, special usage needs – even before the building permit has been filed.

3.2.2 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.

3.2.2.1 Consultation initiatives and relations with local residents and associations representing users

When carrying out their activities, Group companies apply strategies and undertake initiatives in a spirit of dialogue, consultation and exchange with project stakeholders and other key local and regional actors, including elected officials, associations representing users of the infrastructure and facilities they build or operate, as well as people living or working nearby.

LISEA, the operator of the South Europe Atlantic high-speed rail line, fully mindful of the impact on the local noise environment, honoured its commitments by launching an acoustic measurement campaign once the line opened to traffic. The aim of this campaign 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 actors, making sure that transparency remains central to its process. Actions include listening and responding to residents' questions and concerns, and involving mayors in the identification of measuring positions. In June 2017, before the line opened to traffic, the mayors were informed of the launch of the measurement campaign. During the summer, local consultation meetings in 70 municipalities resulted in the final determination of the measuring positions for the campaign, which will continue until spring 2018. A system for handling individual claims has been developed. All claims, whether they are sent to LISEA, the departmental prefects or the mayors, are centralised so that they can be processed in consultation with all stakeholders in accordance with the specific characteristics of population areas.

Through its activities in quarrying and roadworks, 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 the presentation of activities, in order to best facilitate communication between the company and its stakeholders.

VINCI Autoroutes has built up recognised expertise in consultation and dialogue with stakeholders and local residents. Following on from the efforts and actions undertaken in 2016 for the widening of France's A10 motorway between Poitiers and Veigné, and in particular its participatory web platform (www.A10-poitiersveigne.fr), the consultation process was pursued with all affected parties. In 2017, VINCI Autoroutes set up co-construction workshops with the region, bringing together its key actors (residents, elected officials, associations, economic players) to aid in defining the project in advance of the public inquiry. The first workshops held in February focused on topics such as the landscape and cultural heritage, the rehabilitation of engineering structures, biodiversity and natural environments. Two subsequent series of workshops were held in April and June dealing with acoustics, hydraulics, land rights, air quality, economic development and tourism, and new mobility solutions. In June, residents and elected officials were invited to attend meetings to present a summary of the recommendations made by these co-construction workshops, which collected more than 900 opinions. The proposals adopted by VINCI Autoroutes were presented and answers given to the questions received. The public inquiry will be the next phase of this project. In addition, VINCI Autoroutes took part in the first public procurement trade show for mayors in the Vienne administrative department, which provided a forum for exchanges concerning the various development projects launched by the company in the department.

For VINCI Airports in France, the preferred means to pursue consultation with communities living in proximity to airports is the environmental consultation committee (CCE). These committees are chaired by the prefect of the French administrative department where each airport is located and bring together aviation professionals, local authorities and civil society representatives such as local resident associations and environmental organisations. A specific and formal procedure has been set up at each airport for the management and handling of claims. In France, a claims report is presented at every CCE meeting, indicating the number of claims received, the average response time, as well as the breakdown of complaints by municipality and type of disturbance (noise, flight paths, etc.). In Portugal, at all airport facilities managed by ANA, nearby residents are also consulted. The number of claims is consolidated every year at the level of VINCI Airports.

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

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 infrastructures 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 or improve the information provided to them.

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. In Lisbon, the implementation of this solution helped ANA and its partners at the airport improve indicators relating to passenger flows. As a result, waiting times were reduced 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; it offers the option for confiscated items to be mailed to the passenger's home address, at his or her request.

VINCI Autoroutes aims to cultivate constructive relationships with its customers, remaining attentive to their usage patterns and needs, in particular through the development of specific communications materials. A Facebook page named L'A63 et vous (The A63 and You) was created to keep drivers informed of traffic conditions and provide updates on the project for the widening of this motorway between Ondres and Saint Geours de Maremme. VINCI Autoroutes has also continued to set up Twitter feeds to deliver real-time and local information on traffic conditions, travel times or even weather alerts. The aim of this approach is 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, customer service number (3605), and VINCI Autoroutes' main Twitter account. In 2017, new Twitter feeds were created for the following motorway sections: the A86 Duplex Tunnel (@DuplexA86), the Toulon Tunnel (@TunnelToulon), the A11 connecting Paris to Nantes via Le Mans and Angers (@A11Trafic), and the A7 between Lyon and Marseille (@A7Trafic). In September 2017, VINCI Autoroutes launched the Twitter feed @ToulousePeriph, which provides traffic updates for the Toulouse ring road, in partnership with DIRSO, the interdepartmental directorate of roads for south-western France, and Toulouse Métropole, the intercommunal structure bringing together the city of Toulouse and its surrounding communities. Lastly, on an experimental basis, the teams at Waze and VINCI Autoroutes have created a system of real-time alerts able to report the presence of VINCI Autoroutes road maintenance vehicles on the VINCI Autoroutes network.

Initially rolled out in a pilot phase at the Avignon Nord toll plaza on the A7, 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 offer of everyday mobility services, VINCI Autoroutes has also continued its actions to encourage carpooling. In 2017, five new parking facilities reserved for carpooling were opened, bringing the total capacity to over 2,200 spaces. In September 2017, the company published the results of its third survey of French carpooling practices. Publication was timed to coincide with European Mobility Week and the opening of the Assises de la Mobilité, a series of low-carbon transport workshops in France that involved the participation of VINCI Autoroutes alongside elected officials, industry associations, trade unions, NGOs, other industry players and members of the public. The new survey revealed that carpooling has become a fully fledged mode of transport for daily commuters in France. Lastly, VINCI Autoroutes sponsored tests in May 2017 of the new application BlaBlaLines, a carpooling service intended for daily commutes, on roundtrips between Montauban and Toulouse. In September, based on the success of the tests, BlaBlaLines added more routes around Toulouse and Montauban and now covers the entire area.

VINCI Immobilier has introduced two new digital tools to improve the customer experience. Pilot tests were carried out in 2017 for the first of these, a customer extranet, which is to be rolled out more widely in 2018. This service is a solution often requested by the company's customers. It allows for the continuous dissemination of information, from reservation to delivery: progress made at the development site, financial follow-up on the customer's project, a presentation of the key steps in the process, the characteristics of the home and its surroundings, etc. The other tool is the Configurateur, a service offering an immersive 3D walkthrough tour of a standard unit in the property along with an overview of available fixtures, fittings and services, and the ability to compare different floor plans. VINCI Immobilier is also a signatory to the French Ministry of Culture's "1 Building, 1 Work of Art" programme, which involves providing a prominent place for a work of art whenever a building is created or renovated. This commitment is now recognised for its ability to generate real added value. It reinforces the company's brand image and has proved highly meaningful for stakeholders, local authorities and buyers.

3.2.3 Initiatives, partnerships and sponsorships to protect the environment and cultural heritage

In the area of sponsorship and partnerships, VINCI companies focus their initiatives on three main fronts: (i) the environment and research, (ii) culture and heritage assets, and (iii) social integration through work/solidarity (see below pages 207 to 211). In accordance with the Group's decentralised administrative model, VINCI does not consolidate either its reporting on sponsorship actions or the total budget allocated. However, a low-range estimate suggests a total amount of about €13.5 million in 2017.

3.2.3.1 Partnerships and sponsorships that support scientific research and advance scientific knowledge

Ensuring access to reliable and scientifically validated information, and being able to interpret and use this data productively, are essential to VINCI's ongoing operations and the Group's performance. These imperatives also underpin the Group's approach emphasising openness and dialogue in its relations with stakeholders. Since 2008, VINCI has demonstrated its commitment to advance scientific knowledge by creating the VINCI-ParisTech Eco-design of Buildings and Infrastructure Chair. This partnership has resulted in the delivery of new tools and reference guides to aid in understanding and to support decision-making processes relating to energy, the environment and mobility (www.chaire-eco-conception.org). Its activities cover three areas: the eco-design of districts, the efficiency of infrastructure, and the intersection of these two aspects – with a view to the development of multi-industry regulatory tools able to reduce overall environmental impacts by bringing buildings, energy, biodiversity and mobility into the equation. Access was offered during the year to a wider range of expertise through collaboration with architects/urban planners, sociologists and big data specialists. International partnerships were also forged with about a dozen teams specialising in life cycle analysis (LCA) and simulation platforms. In 2017, the budget allocated for this Chair, whose work was focused on usage patterns, was €800,000.

The Fabrique de la Cité (www.lafabriquedelacite.com), a think tank set up in December 2010 at the Group's initiative to examine emerging urban issues, takes an interdisciplinary and international approach to studying trends in developments taking place in cities. It received funding from VINCI and its subsidiaries in the amount of €986,000 in 2017. Studies have focused on financial innovation to promote investment in infrastructure and urban regeneration, the resilience of European cities in the face of demographic changes, and the development of public spaces as a way to achieve social integration and protect public health, in partnership with the Amsterdam Institute for Advanced Metropolitan Solutions. Other recent areas of research for the think tank have included work on millennials and their role in the city and looking at possible actions to improve mobility for medium distances. The 2017 edition of its international seminar, held in Lyon in early July, examined the ways in which large cities might not only give fresh impetus to growth and innovation, but also extend this vitality beyond their borders. It highlighted the impediments to innovation – territorial, economic and financial, but also cultural boundaries – as well as the ways in which Lyon and other world metropolises have managed to meet the challenge of leaving behind outdated approaches, mobilising collective intelligence to create truly liveable cities. This seminar has served as the basis for an analysis of the major issues faced by today's large metropolitan areas in light of the new urban frontiers to be explored.

Also in 2017, VINCI's contributions to the search for socially responsible and innovative technical solutions continued through its research partnership with Solidarités International. A prototype for the thermal insulation of emergency shelters in Lebanon, conceived by a group of students mentored by employees of Solidarités International and VINCI, was rolled out in summer 2017 for a test phase, which will continue until the end of the winter.

3.2.3.2 Partnerships and sponsorships to protect the environment

Environmental protection organisations vary widely in their composition, governance, financing and expectations. VINCI's strategy with respect to these organisations is to build partnerships at local level, depending on where companies are operating, the specific characteristics of projects and the type of business being performed. For each project, VINCI companies select the most relevant partnerships with conservation organisations.

Many Group companies also support environmental and biodiversity initiatives. Since 2012, Eurovia has teamed up with France's Natural History Museum (MNHN) in a partnership to which the MNHN contributes its scientific expertise, assisting Eurovia in its ongoing efforts to further embed biodiversity management within its long-term business strategy. This partnership has established a solid, scientific foundation for Eurovia's approach, a move commended by stakeholders and that supplements the local partnerships still being developed by the company with environmental organisations. As part of this partnership, Eurovia has implemented a methodology designed by the museum's teams to assess the ecological potential of its sites. The method calculates a site's environmental quality indicator (IQE) and helps define the actions to be put in place to improve how biodiversity is taken into account in the operations phase and during site rehabilitation. Subsequently, a number of local partners, namely organisations accredited as permanent environmental initiative centres (CPIEs), have received authorisation to implement the MNHN methodology after completing training in its use.

Several Group entities have also forged partnerships with the Bird Protection League (LPO). VINCI Autoroutes promotes collaborative and sustainable management of biodiversity, in particular through its long-standing partnership with the LPO, in order to protect ecosystems near its motorway network during the construction and operation of motorway sections. With the renewal in early 2017 of this sponsorship agreement, VINCI Autoroutes will be funding a number of environmental protection initiatives carried out by LPO France and its network over the next three years. In addition, VINCI is 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.

Apart from their partnership or sponsorship initiatives in support of environmental protection organisations, Group companies also undertake user awareness campaigns focusing on environmental issues or the promotion of biodiversity with the assistance of partner organisations. Such campaigns include those conducted by VINCI Autoroutes at rest and service areas on its networks. In 2017, these campaigns provided an opportunity to share with customers the lessons of the third VINCI Autoroutes/lpsos survey on the practices of French drivers in relation to the environment when taking to the road for their holidays. Published in July, the survey revealed that 35% of French people admit that they occasionally throw rubbish out of their car windows while driving. In another example, Eurovia partnered with the Tour de France and the MNHN in 2017 to raise awareness of the many exceptional natural sites in regions crossed by the cycling event, as part of "Le Tour de France de la biodiversité", a series of television spots aired during coverage of the event.

Other initiatives of Group companies to protect the environment include the creation of specific corporate foundations, such as the LISEA Biodiversity Foundation and the LISEA Carbon Foundation. The LISEA Biodiversity Foundation seeks to provide long-term support to local projects along the route crossed by the South Europe Atlantic high-speed rail line between Tours and Bordeaux that restore natural habitats, build knowledge of conservation actions and raise public awareness on these issues. Since 2012, 104 initiatives have been selected to receive funding, in the total amount of €4 million. More than 750 events have been held, attended by over 25,000 people and employing over 2,300 staff. During the same period, 230 training courses were delivered to more than 1,500 trainees. The LISEA Carbon Foundation, endowed with a budget of €5 million for 2012–2020, aims to support projects helping to reduce greenhouse gas emissions, divided into three categories: energy performance of buildings, promoting eco-mobility, and supporting the energy transition in rural communities, notably by promoting the use of locally produced feed grains.

Key figures for the LISEA Carbon Corporate Foundation from 2014 to 2017

	Number of projects submitted	Number of projects supported	Total amount paid
Reducing energy consumption by buildings	60	55	€1.74 million
Supporting the energy transition in rural communities	13	11	€0.56 million
Promoting eco-mobility	25	22	€0.37 million

3.2.3.3 Partnerships and sponsorships for cultural production and the preservation of world heritage

Across the Group, many companies are partners or sponsors of non-profit organisations protecting built heritage or supporting cultural institutions and events. Their initiatives take the form of skills sponsorship or financial assistance for projects aimed at restoring cultural heritage assets, improving the dissemination of culture and promoting debate, or support for specific exhibitions, museums or other cultural institutions.

For example, the Group was among the sponsors of the France-Colombia Year in 2017, officially launched in Bogotá in December 2016. The many events covered various topics across a wide range of fields, including culture, the economy, gastronomy, scientific research, higher education, sport and new technologies. VINCI was also an official partner of the 20th Cité de la Réussite (the successful city), held in November 2017 at the Sorbonne in Paris. Transmission was the theme selected for the 2017 edition of this international forum for debate. It brought together a panel of 150 economic, political, scientific and cultural opinion leaders, who discussed and exchanged views with students in around 50 debates. Lastly, as part of its support for the Institut Français and its initiatives to promote knowledge, VINCI was an official partner of the 69th Frankfurt Book Fair in 2017, where France was the guest of honour.

Group companies also take part in sponsorship actions. In 2017, VINCI Construction joined the group of Grand Paris Express endowment fund sponsors, entering into a commitment to support its programme of upcoming artistic and cultural events along the entire 200-km length of the system's new metro lines. Beginning in 2017 and until the opening of the first Grand Paris Express stations, the endowment fund will be especially interested in lending its support to projects that benefit young artists, organising events at the construction sites to bring together the public at large, and launching artistic and cultural actions to mobilise young people in the areas covered by the new network. Through the endowment fund, companies will also be able to encourage the creation or installation of original works of art within the stations. The aim of this programme is to build a new urban cultural heritage without equal anywhere in the world: the first collection of public art, architecture and urban innovation to span an entire metropolitan area.

In another example, in 2017 VINCI Autoroutes sponsored the installation of *Jardin monde*, an artificial garden created by the visual artist and landscape architect Bernard Lassus for the Centre Pompidou, inviting the museum's visitors to immerse themselves in his fascinating universe. In addition to the garden, an entire room within the museum's modern art galleries was also devoted to this artist's work. Lassus was the key advisor for the development of France's national motorway landscape policy and has worked closely with VINCI Autoroutes on a number of motorway projects. In collaborative projects with Lassus, engineers, construction companies and residents have worked to create a new landscape in which everyone finds their place, with the motorway blending into the surrounding countryside.

Lastly, at local level, many VINCI companies volunteer their assistance and technical expertise in connection with a large number of projects for the restoration, repair and refurbishment of historic buildings of high architectural quality and heritage value. Some of these initiatives are iconic, such as the large-scale skills-based sponsorship operation carried out between 2004 and 2007 to restore the renowned Hall of Mirrors at the Château de Versailles. More recent initiatives along these lines include that of Citeos (VINCI Energies) in 2017, when it not only took part in the restoration of the Neptune Fountain, but also became a partner to Les Grandes Eaux de Versailles, the night shows at the Château's fountains and groves.

3.2.4 Initiatives and sponsorships to combat social exclusion and reinforce relations with social integration organisations

VINCI encourages civic engagement on the part of its employees and companies, mainly through its corporate foundations and endowment funds. Local projects that help with the social and professional integration of the underprivileged are a key focus. In order to facilitate civic engagement by all Group employees around the world to address problems of general interest, 12 structures have been created since 2002.

In 2017, the foundations granted a total of €4.37 million to support 332 projects promoting the social, professional and economic integration of the most vulnerable people, with 462 employee volunteers across the Group acting as sponsors.

VINCI undertakes commitments to major structuring projects that provide lasting benefits for communities and regions and brings all its effort to bear so as to ensure that its actions have an overall positive impact. One such commitment is Sillon Solidaire, a sponsorship organisation that was founded at the start of works on the SEA high-speed rail line connecting Tours and Bordeaux. It has supported more than 150 projects in the regions crossed by the line since 2012. Drawing inspiration from Sillon Solidaire, Group companies have created an endowment fund dedicated to VINCI's Grand Paris projects. Established under the name Chantiers et Territoires Solidaires, this new fund is the driving force to promote a lasting partnership between VINCI's Grand Paris construction sites and all their local stakeholders. A first call for projects was launched in 2017 and resulted in the funding of 11 organisations working to create and maintain employment opportunities.

In 2017, the Fondation VINCI pour la Cité developed new ways for employees to demonstrate their civic engagement through its Parcours Citoyen (citizen leadership) programme, including occasional or regular coaching sessions, academic support, career assistance for the long-term unemployed and refugees, etc. The foundation's Cité Solidaire (solidarity in the community) programme, which targets very small non-profits in disadvantaged urban areas, further expanded its efforts, with the launch of new initiatives in Aubervilliers and Toulon in France, and Dresden in Germany. As an example, the Fondation VINCI pour la Cité awarded funding in the total amount of €93,000 to about a dozen Toulon-based non-profits, at a ceremony in July attended by employee sponsors from subsidiaries of VINCI Autoroutes, VINCI Energies and VINCI Airports. The Cité Solidaire programme in Toulon is thus taking part in efforts to improve the quality of life in disadvantaged neighbourhoods; it contributes to the development of very small non-profits in the region and helps give everyone a better chance for full integration in society. Since its launch in 2010, this exemplary programme has been conducted at 27 sites and has enabled the funding of 175 initiatives to strengthen social ties.

In October 2017, the Fondation VINCI pour la Cité and VINCI's international network of foundations and endowment funds invited regional stakeholders (non-profits, major national organisations, public officials, residents and Group companies) to come together for a third VINCI Foundations Rendezvous dedicated to civic initiatives in disadvantaged areas. The event provided an opportunity to showcase these 27 operations and review all of their accomplishments during the year. The 120 attendees at this day of collaborative dialogue also took part in workshops looking at digital solutions to further strengthen civic engagement. Spreading the word about innovative solutions, this event facilitates exchanges, debate and discussion between various players in the private and public sectors as well as the social and solidarity economy.

Actions of Group foundations in 2017 to combat exclusion and foster integration

	Number of projects supported	Number of employee sponsors	Amount distributed to foundations (in €)
France	241	347	3,274,446
of which <i>Parcours Citoyen</i> programme	10	83	-
of which <i>Cité Solidaire</i> programme	27	25	-
of which <i>Sillon Solidaire</i> programme	18	28	225,000
of which <i>Chantiers et Territoires Solidaires</i> programme	11	-	272,578
Germany	18	29	200,000
Belgium	14	17	234,500
Spain	4	4	68,000
Greece	1	1	55,000
Netherlands	4	5	89,000
Czech Republic	9	13	27,431
United Kingdom and Ireland	32	37	329,525
of which <i>Isle of Wight Foundation</i>	8	8	89,798
Slovakia	9	9	97,000
Total	332	462	4,374,902

VINCI is the main partner of the Paris Football Club (Paris FC) and its training centre, the Paris FC Academy, having entered into a five-year partnership in 2015. As part of this commitment, Group employees mentor young sportspeople and assist those having left the world of high-level competitive sports in planning their careers.

3.2.5 Partnerships and sponsorships to expand access to essential services and support social entrepreneurs

Wherever they operate, Group companies support solidarity and development initiatives. Tailored to address local challenges, these initiatives vary depending on the region and its socioeconomic 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. As these initiatives differ widely, this information is not consolidated at Group level.

Initiatives Sogea-Satom pour l'Afrique (Issa) celebrated its 10th anniversary in 2017^(*). Since its beginnings, Issa has demonstrated Sogea-Satom's leadership in civic engagement by supporting social entrepreneurship projects promoting access to essential services. The support provided is twofold: 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 208 projects in the total amount of more than €3 million, in some 19 countries and involving the participation of 215 employees. In 2017, Issa supported 25 new economic and social initiatives in eight countries.

Activities of Issa (Initiatives Sogea-Satom pour l'Afrique) in 2017

	Number of projects supported		Total	Number of countries involved	Total amount paid (in € thousands)
	Access to essential services	Social entrepreneurship			
2017	4	21	25	8	479.8
2016	8	15	23	8	411.6
2015	8	19	27	9	414.0

New initiatives supported by Issa in 2017 include the construction of a fish storage facility and smokehouse in Douala (Cameroon) on behalf of a local fishing cooperative, in order to improve working conditions for the fishermen and raise their income. In the region of Guéckédou (Guinea), Issa funded the construction of a cotton spinning plant, in order to increase production and income for the 64 women who have made their living from traditional cotton weaving for the past nine years. In Johannesburg (South Africa), thanks to the funding and assistance provided by Issa and teams from Sogea-Satom, the Mohau Community Centre was able to completely renovate five mobile homes that were then fitted out to offer long-term accommodation and support for disadvantaged young people and the homeless. Lastly, two female entrepreneurs in Cotonou (Benin), co-founders of Les Amoureux du Pagne, a fashion label that designs clothing and accessories (handbags, jewellery, cushions) made from pagne, a rectangular length of wax print cotton fabric, received a grant from Issa that has enabled them to open a new workshop and boutique in the city and to recruit more employees. Today, the label's designs have acquired a following in many African countries as well as in France and the United States.

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, but often reaching out to local residents as well. These meetings, held on a regular basis at worksites, 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, on the model of the Group's similar sessions focusing on safety concerns, and are sometimes complemented by more in-depth presentations and exchanges. In Cambodia, Cambodia Airports (VINCI Airports) is providing financial assistance for the construction of a centre for research and community outreach on dengue and rabies. In collaboration with the Institut Pasteur du Cambodge (IPC), information sessions on these diseases were held for staff. In March 2017, Cambodia Airports' teams opened the new medical centre at Phnom Penh International Airport in partnership with International SOS. This centre improves access to quality healthcare for employees and their families, corresponding to a total of about 4,200 beneficiaries, and will be organising outreach and prevention activities as well.

(*) https://www.sogea-satom.com/sogea-satom/sogea-satomv2.nsf/web/issa_la_solidarite_en_actes.htm?lng=L2

Also 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 the underprivileged populations of the Siem Reap region. The 700 craftspeople hired by the organisation each receive a contractual salary and a full benefits package. Artisans Angkor, a social enterprise with 2017 revenue of €8 million, supports some 2,000 families and promotes economic vitality in the local area.

3.3 Relations with suppliers and subcontractors

Group companies generally occupy positions in the value chain that foster balanced, long-term relationships with partners, both suppliers and subcontractors. For several years, the proportion of purchases has remained stable, representing 58% of the Group's revenue. In 2017, they were comprised, in particular, of €8.6 billion for materials, €5.3 billion for external services and €8.3 billion for subcontracting.

Percentage of revenue allocated to purchases

<i>(in € billions)</i>	2017	2016	Change
Total amount of purchases	23.3	21.9	+6.4%
Percentage of revenue allocated to purchases	58%	58%	+0.5%
<i>Of which purchases consumed</i>	8.6	8.1	+6.2%
<i>Of which purchases of external services</i>	5.3	5.0	+6.0%
<i>Of which subcontracting (including concession companies' construction costs)</i>	8.3	7.9	+5.1%

3.3.1 General policy to promote dialogue with suppliers and subcontractors

In 2017, the Group continued its efforts to measure and take into account workforce-related, social and environmental factors in the overall value chain. The Purchasing Coordination unit, which reports directly to VINCI's Executive Committee, works with the purchasing departments of business lines and subsidiaries through a central purchasing network as well as the eight regional purchasing committees across the Group. All of the Purchasing Coordination unit's buyers have an individual target for including sustainable development criteria in each contract they negotiate.

Tasked with rolling out the Group's international purchasing policy, the VINCI International Purchasing Committee comprises purchasing representatives from five countries (Germany and the United Kingdom, the two countries after France where the Group has the most extensive operations, together with the Czech Republic, Belgium and Poland); it also includes representatives from the international divisions of two Group business lines (VINCI Energies and Eurovia).

Introduced in 2012, the Group's Supplier Performance Charter explicitly specifies VINCI's expectations of its partners and reaffirms the Group's own commitments as a signatory to the UN Global Compact since 2003. Widely disseminated since 2013, this charter now forms an integral part of the framework agreements developed by the Group. To ensure the continuity of these actions, the Group's Purchasing Coordination unit established its Responsible Purchasing Committee, which brings together about 20 representatives of purchasing, human resources and sustainable development departments from the Group's business lines. After having communicated, in 2016, the priorities of VINCI's responsible purchasing policy and educated buyers in responsible purchasing procedures, this committee worked on drawing up an official statement of this policy and formed two working groups: one to consider approaches to the dissemination of practices and the other to train contract administrators and buyers.

3.3.2 Managing relations with suppliers

In 2017, the Group further reinforced its responsible purchasing process. Sustainable development criteria are now addressed both 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. Specific criteria are used for evaluating suppliers in each purchasing category, depending on the issues faced by the sector in question.

The Purchasing Coordination unit issued a new invitation to tender in 2017 for the selection and approval of site equipment rental companies. A personalised questionnaire was developed to evaluate suppliers with respect to workforce-related and social performance, as was the case for the previous invitation to tender in 2013. Owing to their poor performance in relation to CSR issues, 63 suppliers were not retained. The selected suppliers all proposed progress plans to be audited during the contract period with a view to the acquisition of skills across each organisation. In 2017, 115 site equipment rental companies, assessed on the basis of overall performance criteria, signed a framework contract with the Group.

In recent years, the Purchasing Coordination unit has strengthened the integration of the Group's responsible purchasing policy in the selection of its suppliers. The Responsible Purchasing Committee, comprised of purchasing, human resources and sustainable development managers from all of the Group's business lines and divisions, has been working on the official statement of the responsible purchasing policy, which will be disseminated in 2018.

The due diligence process is under way at the level of the Purchasing Coordination unit. It involves identifying the risks specific to each purchase category and then implementing prevention procedures using appropriate criteria in the specifications for each category.

Key figures for the Group's responsible purchasing initiative within the Purchasing Coordination unit

	Total at 31/12/2017
Contracts including the Group's Supplier Performance Charter or the Global Compact's 10 principles	97%
Contracts including one or more clauses on workforce-related, environmental or social themes	77%
Contracts having involved the completion of a responsible purchasing questionnaire during the tender process	76%
Contracts integrating a progress plan for responsible purchasing	74%
Number of on-site responsible purchasing audits conducted over the last five years	682

At central level, and in each of its projects, VINCI develops partnership-based approaches with its suppliers and favours relationships at local level with small and medium-sized enterprises (SMEs). In its selection and bidding processes, the Group prefers suppliers with strong roots in their regions. This policy also involves expanding purchases from social integration structures and from social enterprises, sheltered workshops and other organisations that specifically employ people with disabilities. In 2017, the volume of purchases from these entities was €5.9 million.

3.3.3 Managing relations with subcontractors

The Group places a priority on retaining and expanding 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, require the use of a certain percentage of local subcontractors. These actions contribute to the development of local businesses and the local economy as a whole, over and above the other contributions made by the Group's business activities. Given a competitive landscape outside France that is frequently characterised by low standards in this area, VINCI pays attention to ensuring that its subcontractors comply with regulations in force in the countries where Group companies operate.

The Group's general policy is to build balanced relationships with its partners over the long term. This involves a commitment to cooperate with local companies, facilitating their integration in projects and encouraging the transfer of know-how to ensure the successful completion of projects. Rolled out in 2014, VINCI's Subcontractor Relations Guidelines sets out the implications of this commitment. In addition to cooperation with local companies, VINCI aims to guarantee safety conditions of subcontractors' employees that are comparable to those of the Group's personnel, and to ensure respectful business relationships, fair bidding processes, transparency in business dealings and compliance with VINCI's core values. To assess the acceptance and application of these principles, during the preparation of the Guidelines some 30 interviews were conducted with individuals likely to act as contracting authorities across all business lines, in France and abroad.

In some geographic regions, increased vigilance of recruitment agencies is required when outsourcing of the recruitment process can be considered as high risk. Workers in some countries are hired extraterritorially, entailing the use of intermediaries outside these countries. In these cases, it is important to ensure that the recruitment process is secure in order to avoid any risk of forced labour. The guidelines communicated in VINCI's Guide on Human Rights indicate the actions to be put in place and the fact that applicants must not bear any of the costs for the recruitment procedure. Furthermore, in June 2017 VINCI joined the Leadership Group for Responsible Recruitment, a collaborative initiative between leading companies and expert organisations to promote responsible recruitment practices.

3.4 Fair business practices

3.4.1 Prevention of corruption and fraud

The second commitment of the VINCI Manifesto states as follows: "Ethical behaviour is key to our contracts and our customer relations. Our companies apply our Code of Ethics and Conduct around the world. We commit to ensuring total transparency in our own practices and in those of our subcontractors."

VINCI's Code of Ethics and Conduct, which was released in an updated version at the end of 2017, sets out the rules of conduct that apply to all Group companies and employees. Since its first version, the code has included a section on the prevention of corruption, an issue brought to the fore in France by Law no. 2016-1691 of 9 December 2016 relating to transparency, anti-corruption measures and the modernisation of economic life (known as the "Sapin 2" Act). Further details on this subject are provided in a specific anti-corruption code of conduct used in connection with the Group's training sessions in this area. In 2017, the Group continued its efforts to disseminate and explain the related issues to managers, who then made similar efforts to cascade the information throughout their own organisations. The Group actively monitors this procedure, and an intranet tool enables Executive Management and the head of Internal Audit to check that it is being deployed correctly. Reports are drawn up on a regular basis, allowing remedial action to be taken quickly if required. Available both on the Group's main website (www.vinci.com) and on its intranet sites, the code is sent personally to employees authorised to enter into commitments on behalf of the Group; such employees totalled 7,293 individuals for 2017 (up 6% compared with 18 December 2016).

Any employee can contact the Ethics Officer, who is bound to observe certain guidelines, which include a guarantee of confidentiality, the commitment to respect the integrity and status of all employees, and the avoidance of discrimination. Several matters were referred to the Ethics Officer in 2017. In each case, the issues were investigated appropriately, in compliance with these principles, with the support of internal or external resources whenever necessary.

The Ethics and Compliance Club, which brings together the legal heads of the Group's business lines and the Ethics Officer, aims to keep abreast of changes in legislation relating to ethics and foster exchanges of best practices, in particular with respect to training tools. This Club thus works in the area of the prevention of corruption. In 2017, several actions to raise awareness of anti-corruption measures were carried out across the Group. Several presentations dealing with the aforementioned Sapin 2 Act were made by the Group's General Counsel to the various governance bodies (VINCI's Executive Committee, Management and Coordination Committee, Audit Committee, and Board of Directors) and at events bringing together the Group's financial management staff (CFO Convention, Treasurers' Seminar). In 2017, VINCI also organised a convention on business ethics bringing together the Group's 300 legal experts, which included discussions about ways to fight corruption, with a specific item devoted to the Sapin 2 Act. In addition, VINCI's Strategy and Investments Committee has been renamed as the Strategy and CSR Committee, as decided by VINCI's Board of Directors at its meeting of 15 December 2017. All VINCI companies have appointed ethics or compliance correspondents, managers or officers. The prevention of external fraud is discussed in chapter D, "Risk factors and management procedures", paragraph 2.4.6, page 176.

Regular training sessions are organised within VINCI's various business lines to clarify and delve further into potential ethical issues as they relate to the Group's principles and values. As an example, VINCI Energies has drawn up an Ethics and Compliance Guide for its purchasing function. Distribution of this guide began in 2017, to staff at VINCI Energies International & Systems on a priority basis, and has been accompanied by training courses. Sogea-Satom organised a plenary session on ethics at one of its seminars for its managers. In November 2017, the members of Sogea-Satom's management committee took part in a full-day training session on risk management delivered by a lawyer specialising in business criminal law. Entrepose has developed its own guide on the prevention of corruption, which is distributed to all employees. The guide summarises Entrepose's anti-corruption policy and procedures as well as the indicators and

tools put in place to eliminate or reduce the risks to which its activities are exposed. The aim is to disseminate the guide widely within the company but also externally, to customers, partners, subcontractors, suppliers and other stakeholders.

3.4.2 Wellness, health and safety of customers and end users

The business activities of VINCI's companies have an impact on the areas where they take place. To limit the effects, research and development investments are stepped up annually in the aim of reducing impacts and pollution. The main efforts are in relation to environmental impacts such as exposure to noise, dust, vibrations, etc. that could have an effect on the health and safety of employees, customers and all stakeholders concerned. The winners of the 2017 VINCI Innovation Awards include a number of projects with an impact on safety.

Work is continuously carried out on improving the service quality of VINCI infrastructure for customers and satisfaction surveys are regularly conducted. These constant efforts to improve customer experience, well-being and safety have been recognised by awards. In March 2017, two airports in the VINCI Airports network (the Puerto Plata international airport in the Dominican Republic, and Porto airport in Portugal) received 2016 "service quality" awards from Airports Council International (ACI). The annual Airport Service Quality (ASQ) awards identify the world's best airports based on the ACI passenger satisfaction survey. The survey comprises 34 key indicators, including services provided, waiting times, courtesy, cleanliness and comfort.

In the Group's activities involving mobility, road risk is the main category of risk affecting users. VINCI employees drive more than 35,000 company vehicles and several thousand site machines. They are all exposed to road risk, as are the hundreds of millions of people using motorways, roads and other infrastructure operated under concession contracts every year (more than 2 million per day), as well as the airports operated by VINCI Airports (nearly 157 million in 2017). Campaigns are organised to raise awareness and specific training is provided for the employees most exposed. Moreover, in countries where road traffic injuries are a leading cause of death, Group companies conduct specific prevention campaigns targeting their employees. In 2017, Cambodia Airports launched an awareness programme in partnership with Asia Injury Prevention (AIP), combined with road safety training sessions, taking as its theme "One helmet saves one life". In Colombia, in connection with the works carried out on the Via 40 Express between Bogotá and Girardot, user safety campaigns were conducted in association with local traffic police. In France, as part of its ongoing efforts to promote road safety, the VINCI Autoroutes Foundation for Responsible Driving (www.fondation.vinci-autoroutes.com) published the findings of its 2017 barometer survey on responsible driving relating to the behaviours of French drivers on work-related journeys other than commuting, thus raising awareness of this issue to encourage greater responsibility for road safety. Publication of the survey was timed to coincide with the first edition of the Road Safety at Work Days, held from 9 to 12 May 2017 and organised by the Road Safety unit at the Ministry of Internal Affairs.

Accident figures for the VINCI Autoroutes network

	2017	2016
VINCI Autoroutes motorway networks operated (in km)	4,412	4,391
Traffic (in billions of km travelled)	51	50
Number of accidents per billion km travelled	232	230
Number of fatal accidents per billion km travelled	1.4	1.5
Number of deaths per billion km travelled	1.6	1.7

The VINCI Autoroutes Foundation for Responsible Driving is committed to the reduction of road risk, focusing in particular on drowsiness and inattentiveness at the wheel. It has played a leading role in making information on this issue available to drivers and the general public. For instance, Roulons-autrement.com (Let's drive differently), the first online information resource and community dedicated to road safety in France, continues to attract a large following among all segments of society five years after its launch; this resource was developed in partnership with the non-profit organisation Ferdinand. In addition, through its research programme, the Foundation has also taken part in the funding of several scientific studies and investigations looking at road user behaviours. In France, it is working in particular with the National Institute of Sleep and Alertness (INSV), the University of Strasbourg's Centre for Neurocognitive and Neurophysiological Investigation (CI2N), and the Armed Forces Biomedical Research Institute (IRBA). New studies in 2017 included an examination of the effects of sleep deprivation and fatigue on motorbike riders and an analysis of the potential for biological detection of drowsiness by testing saliva, based on research conducted by the Sleep Centre at Hôtel-Dieu hospital in Paris and at Paris-Descartes University. In addition, the fourth European barometer survey on responsible driving was published, which is useful for the identification of risky driving behaviours and best practices in order to adapt prevention messages in each country. 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 user.

3.5 Human rights

3.5.1 General policy in the area of human rights

VINCI has been a signatory to the UN Global Compact since 2003. It is thus 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. VINCI refers to the UN Guiding Principles on Business and Human Rights in defining its strategy. In this vein, VINCI has updated its analysis of the human rights risks associated with its business activities. The key issues identified, a total of 17 themes, have been grouped into five categories: recruitment practices and migrant workers, working conditions, conditions of accommodation, the practices of subcontractors in the area of human rights, and relations with local communities.

A new Group-wide reference guide, VINCI's Guide on Human Rights, has been prepared by an ad hoc steering committee, comprised of human resources managers of all Group business lines and divisions, who began meeting on a monthly basis at the end of 2015 to review these issues. The guide provides a detailed overview of all related issues and the implications of each theme for the Group's companies. The committee's cross-disciplinary and collaborative efforts have resulted in a shared set of guidelines, indicating the specific steps to be followed at each phase in the project life cycle, from the response to the call for tenders through to commissioning and operations. The rules thus laid down by VINCI for its own business activities constitute a benchmark for the management of human rights risks and

impacts. The Group's guidelines are in keeping with the principles of the Universal Declaration of Human Rights, the eight fundamental conventions of the International Labour Organisation and the OECD's Guidelines for Multinational Enterprises. VINCI's Guide on Human Rights applies to all Group employees. Validated in April 2017 by VINCI's Executive Committee, the guide has since been translated into English, German and Spanish. New translations are under consideration to make this information available as widely as possible. An internal document appended to the guide, intended for operational managers and human resources professionals within the Group, has also been prepared. It lists the main issues, providing useful recommendations and best practices for each in order to avoid potential infringements of the human rights concerned.

The guide has been distributed to all of the Group's operating entities. It has been presented to the management committees of all Group business lines and divisions, who took responsibility for cascading the information to their teams. The guide is a public document and may be accessed by any interested parties via the VINCI website. It has also been printed by the Group in a run of more than 5,000 copies in French and 4,000 in English. Its broad distribution is also ensured via electronic means, in a format allowing it to be printed or reproduced locally by the Group's companies.

In order to supplement the standard contractual clauses on human rights, a comprehensive and gradual approach has been defined by the Group to disseminate these guidelines to staff likely to have to deal with these issues in the course of their projects. Various tools have been developed and are being tested prior to a wider rollout. As part of the preparations for this rollout, an e-learning module to raise awareness and provide information on specific human rights issues and the corresponding VINCI guidelines is currently in the design phase. Furthermore, following on from the identification of the risks associated with its activities and business lines, a second mapping procedure, relating to country risks, is in the process of being completed at Group level. Additionally, human rights are also a focus of the new version of Advance, VINCI's sustainable development self-assessment tool used by all management committees of Group companies.

At the same time, in order to address issues raised by the Group's decentralised management model and provide a response tailored to each environment, VINCI is developing self-assessment tools that may be used to carry out a specific analysis of performance against the guidelines at the level of a country, a project or a given entity, and produce, where applicable, a suitable action plan to mitigate or prevent adverse human rights impacts.

As is the case for the Guide, this comprehensive approach is supported by the human rights steering committee, comprised of the human resources managers of all Group business lines and divisions, one of whose responsibilities is to follow up on the rollout of this set of tools.

Lastly, in support of its policy and in order to be able to exert its influence on the value chain, VINCI actively participates in collaborative initiatives, in particular Building Responsibly, a global business initiative co-founded by the Group that serves the engineering and construction industry. Launched in February 2017, Building Responsibly aims to bring together companies in the sector in order to develop common approaches and standards, share best practices, tools and experiences, and engage stakeholders and all actors in the industry's value chain to find concrete and collective solutions to the challenges faced in the sector in looking after the rights and welfare of workers.

At the end of 2017, VINCI joined the Global Deal, a worldwide initiative that aims to foster and promote social dialogue as an important tool to generate decent work and quality jobs, thus leading to greater equality and inclusive growth. VINCI sees its declaration of support for this multi-stakeholder partnership, which brings together governments, businesses, trade unions and other organisations, as an additional opportunity to strengthen its efforts to disseminate and develop management-labour dialogue in all the countries where it operates and across its entire sphere of influence.

In 2017, VINCI continued to engage its stakeholders in these subjects. Ongoing dialogue was maintained with key civil society representatives, involving frequent exchanges through participation in forums, working groups and collaborative initiatives.

3.5.2 Prevention of human rights risks in Qatar

VINCI is present in Qatar via its joint venture QDVC. For a number of years, this company has striven to improve working and living conditions for its employees, and fights against all infringements of fundamental human rights. QDVC applies strict procedures to ensure that its employees enjoy freedom of movement: all are in possession of Qatari residence permits, which are essential for moving about within the country. In addition, they all have access to secure lockers where they may store personal documents, such as their passports and employment contracts. QDVC issues official no-objection certificates (NOCs) to employees wanting to leave the company, allowing them to seek employment elsewhere. Similarly, official exit permits are delivered to workers who wish to leave the country, whatever the reason (holidays, emergencies). To fight debt bondage, QDVC has put in place robust control processes for the monitoring of recruitment agencies in the countries of origin (Bangladesh, India, Nepal, etc.), involving precise rules about the expenses paid by QDVC (airfares, visas, medical visits, etc.), with the understanding that migrant workers must not bear any of these costs. Lastly, QDVC pays particular attention to the living conditions and conditions of accommodation of its migrant workers. Today, the accommodation sites, which are owned and managed by QDVC, meet the standards of the Qatar Foundation.

QDVC has continued its actions to improve working conditions, with the introduction, in March 2016, of a system for reporting complaints (for collective as well as individual complaints) that guarantees its employees complete confidentiality. In November 2016, QDVC also held an election for employee representatives (a first in the country), through which 27 employees were chosen by their peers to represent them on the company's works council. For a month, 75 candidates waged their campaigns. The election's participation rate was 72%, thus 2,894 voting employees out of a total workforce of 4,016.

In 2015, to verify the effectiveness of the measures put in place by QDVC, VINCI decided to undertake a human rights impact assessment (HRIA) at the company. The methodology used for this assessment derives from the UN Guiding Principles on Business and Human Rights. A committee of independent international experts from institutions widely known for their work in this area was formed to assist with methodological aspects of the approach and follow-up on recommendations. The institutions involved were the International Labour Organisation (ILO), Building and Wood Workers' International (BWI), the Danish Institute for Human Rights, the Qatar Foundation, and the French National Consultative Commission on Human Rights. VINCI commissioned an independent third party, Business for Social Responsibility (BSR), a global non-profit business network and consultancy, to conduct this study.

Lastly, VINCI and QDVC have been engaged in constructive dialogue with representatives of BWI since 2015. A delegation is invited to visit QDVC's worksites each year, which is also accompanied by the two employee Board members and the Secretary General of VINCI's

European Works Council. This dialogue with BWI resulted in the opening of negotiations in 2016 for the signing of a tripartite agreement between VINCI, QDVC and BWI. This project came to fruition in 2017. All of the efforts brought to bear by QDVC led to the official signing of an agreement on workers' rights by BWI, QDVC and VINCI on 20 November 2017 at the ILO's Geneva headquarters, during a ceremony attended by ILO Director-General Guy Ryder. The agreement covers human rights in the workplace, accommodation, and issues relating to the fair recruitment and the employment rights of workers. It applies to all workers employed by QDVC in Qatar, and stipulates a due diligence procedure for subcontractors. This agreement is the first of its kind in Qatar between a union federation and a Qatari company. The agreement also calls for an extensive verification system involving follow-up, reporting, monitoring, inspections and audits under the aegis of a reference group composed of representatives of the three parties. All aspects of the agreement's implementation will be reviewed by the parties. The agreement is a public document and may be accessed by any interested party via the QDVC website. It is also made available by the company to its own employees as well as those of its suppliers of labour and its subcontractors.

4. Duty of vigilance plan

The purpose of this section is to satisfy the reporting requirements set out in French law no. 2017-399 on the duty of vigilance of parent companies and subcontracting companies. It continues and complements the workforce-related, environmental and social information presented in the preceding sections and describes the Group's duty of vigilance plan. This plan consists of the various measures that VINCI has in place to specifically address each of the three duty of vigilance areas and which aim to identify and manage the risk of negative impacts on people or the environment that may result from the Group's activities.

VINCI's duty of vigilance plan is therefore based on the Group's sustainable development commitments, which are published in its Manifesto, and on the Group's policies regarding the three areas covered by the duty of vigilance law, so as to promote vigilance measures specific to each area. These policies and frameworks for action are part of a continuous improvement process and are completed by responsible purchasing and subcontracting initiatives in all three areas (see paragraph 3.3, "Relations with suppliers and subcontractors"). VINCI's duty of vigilance plan is also based on the Group's cross-activity sustainable development and ethics policies, especially the whistleblowing system that applies to all duty of vigilance issues.

The plan was presented to the members of the Board of Directors of VINCI on 15 December 2017.

4.1 Duty of vigilance with regard to health and safety

Due to the inherent risks of the Group's business activities, VINCI has made health and safety a main priority. The aim of the Group's health and safety approach is to achieve zero accidents. This objective applies to all employees and temporary staff but also anyone else on a VINCI worksite or on sites operated by VINCI. The health and safety policy is coordinated at Group level by a team made up of the health and safety directors for the Group's various business lines, in order to disseminate and promote a strong safety culture shared by all of VINCI.

The health and safety policy (pages 187 to 188) aims to anticipate and prevent occupational hazards, including psychosocial risks, to ensure hygiene, health, safety and quality of life in the workplace, and to provide for the redeployment of employees who have suffered a workplace accident or illness. The policy was bolstered in 2017 by the signing of a joint statement by VINCI's Chairman and CEO and by the European Works Council, providing a set of guidelines for the essential and fundamental steps to be taken in workplace health and safety. The statement reiterates the main thrusts of VINCI's health and safety policy, describes the initiatives and measures to be implemented at all the Group's sites, and provides for the monitoring of results.

At the operational level, each site must conduct a risk analysis at the earliest possible stage ahead of any work situation and, based on the findings of the analysis, incorporate preventive measures into operating procedures and methods. In addition to ensuring the supply of personal protective equipment adapted to each work situation, entities must have a full understanding of each risk associated with their situation and the measures to be taken to manage it. Furthermore, for every accident, an investigation must be undertaken together with the employee representatives and the causes must be analysed. Likewise, employee representatives should be involved in the implementation of initiatives and consulted for suggestions, notably for the prevention of work accidents and occupational hazards.

These local risk identification and management processes are accompanied by procedures to measure and review risk on a regular basis and to report data to the Group. They form part of the continuous improvement process implemented by the sites, including in their relations with subcontractors.

4.2 Duty of vigilance with regard to human rights

To ensure the protection of human rights, VINCI has set up a process to identify and manage the risk of negative impacts on people due to its business activities. Described in more detail in paragraph 3.5 (page 213), it is coordinated by the Group's human rights steering committee, whose members are the human resources directors of the Group's business lines and divisions.

Working together with VINCI's business lines, an analysis of risk associated with the Group's activities was conducted, resulting in the identification of the most significant operational issues for VINCI. They relate to recruitment practices, migrant workers, working conditions, conditions of accommodation, the protection of human rights in the value chain, and the impacts of activities on local communities. Based on this analysis, the Group defined a reference framework and set down guidelines for implementation, published in VINCI's Guide on Human Rights, in accordance with international standards to promote and protect human rights.

These guidelines form the basis of the Group's duty of vigilance approach with respect to the protection of human rights in its business activities. Because the Group believes in providing operational solutions that address local issues, it is developing assessment tools for operational teams to facilitate the application of the guidelines. These tools will contribute to a better understanding of human rights issues and associated risks and support training and awareness initiatives. All these measures aim to effectively help manage risks through the rollout of relevant risk prevention and mitigation programs.

The Group is also developing targeted measures to identify, prioritise and manage risks based on the activities and locations of the Group's companies (such as country risk maps, in-house task forces for a variety of subjects, participation in sector-wide collaborative initiatives, and specific procedures for countries like Qatar – see paragraph 3.5.2, "Prevention of human rights risk in Qatar").

The duty of vigilance approach and accompanying measures to implement it are all part of a continuous improvement policy. They are being deployed on an ongoing basis in the Group.

4.3 Duty of vigilance with regard to the environment

The Group's environmental policy aims to incorporate environmental protection into each stage of a project, from design to operation. Embedded in the "Acting for green growth" commitment in the Group's Manifesto, it is coordinated by the Sustainable Development Committee, made up mainly of directors and managers in charge of environmental issues in the Group's entities. Technical working groups, bringing together experts from each business line to work on cross-activity issues, have also been formed: the Biodiversity Task Force, the Circular Economy Group and the Energy Performance Group. The Group's environmental policy is described in detail in paragraph 2.1 of chapter E, "Workforce-related, environmental and social information".

Operational managers ensure proper implementation of the policy, assisted by more than 500 environmental correspondents based in Group companies. An environmental strategy committee will be created in 2018 to reinforce best-practice sharing and foresight on environmental issues associated with the Group's businesses. Its members will include environmental directors, communications managers and operational directors and will report on its work to the Group's Executive Committee.

The VINCI Group's construction and concession activities have significant impacts on natural environments if these effects are not considered right from the design phase for buildings and infrastructure. The Group's activities can impact the environment in four ways: pollution (including from noise, light and odours), the emission of greenhouse gases, the use of non-renewable raw materials, and long-term impact on species and natural habitats.

Entities respond to these risks by setting up environmental management systems adapted to their business activities. Environmental prevention plans help to reduce the risk of pollution from worksites and sites under operation. The eco-design of infrastructure and buildings also contributes to lessening the environmental impacts of business activities, for example by lowering their energy consumption or increasing the reuse and recycling of construction materials.

The measures implemented by the various entities are monitored through the environmental reporting system, which aggregates more than 60 quantitative indicators for the main environmental issues associated with the Group's activities.

5. Note on the methods used in workforce-related, environmental and social reporting

VINCI's workforce-related, environmental and social reporting framework complies with Articles L.225-102-1, R.225-104 and R.225-105 of the French Commercial Code, as well as French Order no. 2017-1180 and Decree no. 2017-1265 and is based on the Global Reporting Initiative (GRI) standards – see the cross-reference table on page 331.

5.1 Methodological procedures

VINCI's procedures are specified in the following materials:

- for workforce-related indicators:
 - a guidebook in four languages (French, English, German and Spanish) containing workforce-related indicator definitions;
 - a methodological guide to VINCI's workforce data reporting system, including a reporting tool users' manual in four languages (French, English, German and Spanish);
 - a guide to consistency checks in two languages (French and English);
 - an audit guide helping entities to prepare for audits and make good use of their results (available in French, English, German and Spanish);
- for environmental indicators:
 - a methodological guide to VINCI's environmental reporting system, including a guide to the definition of common indicators, which entities can use to set up their environmental reporting procedures. This guide is available in three languages (French, English and Spanish);
 - a reporting tool users' manual in two languages (French and English);
 - an audit guide helping entities to prepare for audits and make good use of their results (available in French and English).

All of the above materials are accessible on the Group's intranet site.

The Group's efforts to accelerate its workforce-related and environmental reporting process in 2010 resulted in:

- new methods for earlier preparation of workforce indicators, applicable to all entities since 2011;
- the shifting of the reference period for environmental reporting by one quarter (the reference period for year Y is now from 1 October Y-1 to 30 September Y). This change has applied to all entities since 2010.

5.2 Scope

The reporting scope is intended to be representative of all VINCI's business activities:

- workforce-related reporting has covered all Group entities by worldwide revenue since 2002; 19 companies acquired in 2017, did not provide full information in some areas:
 - 13 companies with fewer than 100 employees;
 - five companies with more than 100 and fewer than 500 employees;
 - one company with more than 500 employees.

The indicators concerned are training, salaries, safety, labour-management relations and disability.

- in 2017, environmental reporting covered 97% of Group entities by worldwide revenue.

Excluded from environmental reporting in 2017 are entities whose environmental impacts are not material and which do not have an environmental correspondent. These exclusions must not exceed 5% of the environmental impact of each entity.

However, for certain specific environmental indicators, the reporting coverage of the indicators published may be more limited. Reporting on waste is now reliable for a scope covering 67% of the Group's activities (VINCI Autoroutes, VINCI Energies, VINCI Construction UK, half of VINCI Construction Grands Projets's activities, Eurovia, VINCI Airports, and other concessions). Reporting on raw materials covers the activities of VINCI Autoroutes and Eurovia, which, mainly due to the reporting of data on recycled mix, is also included in the waste reporting scope. VINCI is continuing its efforts to expand and improve the reliability of the reporting of these indicators for all the business activities where they are of relevance.

Since 2011, the consolidation rules used for these scopes have been the same as for financial consolidation, except for the entities listed below. These entities are still consolidated proportionally for environmental reporting, exceeding the scope of financial consolidation:

- VINCI Construction Grands Projets: all projects;
- Soletanche Freyssinet: Soletanche Bachy Cimas (Colombia), Geofundaciones (Colombia) and Zetas (Azerbaijan).

These consolidation rules apply to all reporting indicators, except the "number of environmental incidents" indicator, in which all incidents count for 1.

In the event of a change in scope:

- workforce-related reporting: changes in scope in year Y are taken into account in the same year;
- environmental reporting: changes in scope in year Y are taken into account in year Y+1.

Significant changes in scope during 2017:

- acquisition by VINCI Energies Europe of Axianseu Digital Solutions (Portugal), Acuntia (Spain), Infratek Finland OY (Finland), Infratek Norge AS (Norway), Infratek Sverige AB (Norway), Horlemann Elektrobau GmbH (Germany), Verkerk Groep B.V. (Netherlands);
- acquisition by VINCI Construction of Seymour Whyte Constructions (Australia) and Benedetti-Guelpa (France).

Furthermore, since the integration of the Stade de France stadium, the MMArena in Le Mans and the motorway concessions held by Granvia (Slovakia) and Gefyra (Greece), virtually all concessions are now covered by the environmental reporting system, following the reporting procedure that applies financial consolidation rules. The fully consolidated London Stadium was not included in the scope for 2017.

5.3 Indicator selection

Indicators are selected on the basis of the social and environmental impact of the Group's activities and the risks associated with those activities.

There are four levels of core social indicators:

- those specified in Articles R.225-104 and R.225-105 of the French Commercial Code;
- the GRI standards;
- those included in the social report, as required by French law; and
- specific indicators reflecting VINCI's human resources policy.

The complementary nature of these four levels of indicators makes it possible to measure the results of the Group's human resources policy and social commitments.

The core environmental indicators are made up of five types:

- resource consumption (energy/CO₂ and water);
- waste management and recycling;
- certifications and projects having received other types of label;
- environmental awareness and training;
- environmental incidents and provisions for environmental risks.

These five types of indicator were taken from the following sources:

- Articles R.225-104 and R.225-105 of the French Commercial Code;
- GRI standards.

Each business line continues to use its own additional indicators, which are based on its specific environmental challenges.

5.4 Methodological explanations and limitations

The methodologies used for some workforce-related and environmental indicators may be subject to limitations due to:

- differences between French and international definitions (which VINCI continually works on to harmonise);
- differences in labour and social laws in some countries;
- changes in indicator definitions that could affect their comparability;
- changes in business scope from one year to the next;
- the difficulty of collecting data from a subcontractor or joint venture with external partners;
- the procedures for collecting and entering this information.

Due to the presence of subcontractors at many sites, the question of whether to include their activities in the environmental reporting has been raised. Currently, their data is included whenever VINCI is directly responsible for it (i.e. services or resources provided by VINCI).

The methodological guide to VINCI's environmental reporting system allows for environmental data to be calculated based on spending and average unit prices for the base period, if source data is not available. This method is used in particular for VINCI Construction France worksites, Soletanche Freyssinet worksites in France and the French divisions as well as most of the international divisions of Eurovia. In France, average unit prices come from the following sources: the French Ministry for the Ecological and Inclusive Transition (for fuel consumption) and the Eaufrance internet portal, which is a public information service on water and aquatic environments (for water consumption).

Reporting of water consumption currently covers all water purchased. Water withdrawn directly from the environment is recorded for concession businesses and now included in consolidated reporting. VINCI is continuing its efforts to expand and improve the reliability of this reporting item over a broader scope.

The number of certified projects is limited to VINCI Construction and VINCI Immobilier. A project with several certifications will be counted several times. Only projects handed over during the year are taken into account.

Total energy consumption (excluding energy from heating networks, which is not material and therefore not included) is expressed in MWh higher calorific value (HCV). The conversion factors used are 0.0104 MWh/litre, 12.027 MWh/tonne and 4.839 MWh/tonne for motor fuel, heavy fuel oil and coal (lignite), respectively, and were taken from the Ademe Base Carbone database.

For greenhouse gas emissions, the conversion factors used were also taken from the current Ademe Base Carbone database (2012 data is used to track the Group's emissions-reduction commitments).

The fuel savings resulting from the use of electronic toll collection (ETC) lanes were validated in 2012 by an independent consultant and the data shared with the Association des Sociétés Françaises d'Autoroutes (Asfa, the association of French motorway companies):

- for light vehicles: 0.03 litres of fuel saved per toll use;
- for heavy vehicles: 0.3 litres of fuel saved per toll use.

The amount of CO₂ emissions prevented is calculated based on the assumption that all vehicles use diesel fuel. Only emissions from fuel combustion are taken into account; emissions from other processes (fuel production) are not included in the calculation.

The motorway users greenhouse gas emissions indicator is calculated using a tool developed by Asfa and takes into account all kilometres travelled by users (whether on toll or free roads) in the VINCI Autoroutes network during the financial year. The velocity profile per vehicle class used is the default 130 km/hour profile pre-configured in the tool. Traffic is assumed to be 100% fluid; the effect of inclines or radars is not included in the calculation. The influence zone of toll collection is assumed to be 0.1 km. The entire network is also assumed to be an intercity network.

The figures in the Annual Report are based on data known at the end of the financial year. They may, however, be adjusted the following year if a significant anomaly is observed and provided that the adjustment is substantiated in detail. None of the figures published in the 2016 Annual Report were adjusted in 2017.

Occupational illnesses are defined as illnesses contracted following prolonged exposure to a professional risk (noise, hazardous products, posture, etc.) and recognised as such by the regulations in force, where such regulations exist. The number of days of absenteeism for occupational illness includes days lost due to illnesses declared as occupational and recognised as such, where such regulations exist. The Group continues to educate subsidiaries about the need to harmonise reporting practices.

5.5 Consolidation and internal control

Workforce-related data is collected from each operational entity using a specific package of the Vision III data reporting system, including automatic controls. Data is checked and validated by the Group entities themselves. This data is then consolidated in two steps:

- Step 1: each business line consolidates all data within its scope. When consolidation takes place, data consistency checks are carried out. Having been consolidated and checked at the business-line level, data is then provided to the Group Human Resources Department;
- Step 2: the Group HR Department consolidates data across the whole scope and checks its consistency.

Environmental data is collected, checked, consolidated and validated by the environment managers in each business line and division using their own IT tools. The data is then consolidated centrally using Vision III. When consolidation takes place, data consistency checks are carried out at Group level by the Delegation for Sustainable Development. Comparisons are made with the previous year's data and any material discrepancies are analysed in detail.

5.6 External controls

Each year since 2002, VINCI has asked its Statutory Auditors to give their opinion on the quality of the procedures used to report social and environmental information. In 2017, a Statutory Auditor was appointed as the independent third-party body in charge of verifying the completeness and fair presentation of information published in the "Workforce-related, environmental and social information" chapter. The nature of the auditing work carried out and the findings are presented on pages 225 to 227.



1 cours Ferdinand de Lesseps
92851 Rueil Malmaison Cedex – France
Tel.: +33 1 47 16 35 00
Fax: +33 1 47 51 91 02
www.vinci.com

 VINCI.Group

 VINCI

 @VINCI