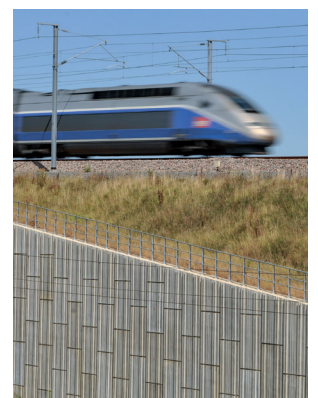
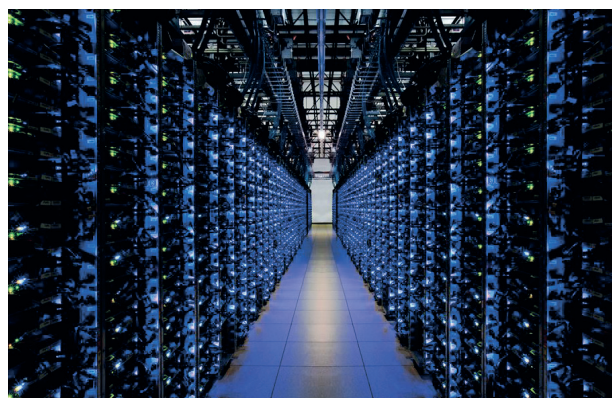


2016 WORKFORCE-RELATED, ENVIRONMENTAL AND SOCIAL INFORMATION



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 and is based on such international reporting guidelines and standards as the Global Reporting Initiative (see the cross-reference table on pages 325 and 326) and ISO 26000. This report has been prepared in compliance with the decree on companies' disclosure requirements for social and environmental data.

It contains three sections:

- workforce-related responsibility (pages 166 to 176);
- environment (pages 176 to 187);
- social information (pages 188 to 198).

VINCI's sustainable development policy and strategy are presented on pages 26 to 39 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 198 to 200. 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 initiatives in this area. VINCI has also made a commitment to French non-profit organisation Global Compact France 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 ILO (International Labour Organisation) and ISO 26000.

Commitments/Principles	Initiatives in 2016
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"> – Support through Initiatives Sogea-Satom pour l'Afrique (Issa) for 23 projects relating to business, health and education – Measures to fight HIV/AIDS, malaria, cholera and Ebola – Ongoing work of the human rights working group, which brings together human resources directors operating in potentially sensitive regions – Continuation of the dissemination of the Group's Subcontractor Relations Code of Practice, which covers all the Group's business activities and countries where it operates – Ongoing integration of the "Labour standards and human rights" chapter in the Group's new framework contracts with its suppliers
2. To ensure that Group companies are not complicit in human rights abuses.	<ul style="list-style-type: none"> – New version of Advance, a sustainable development self-assessment questionnaire dealing with fundamental social rights; the questionnaire is intended for the management committees of Group companies. – Continuing development of the Group's Guide to Fundamental Social Rights for its operational staff
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"> – 1,005 collective agreements signed – Renewal of management and labour dialogue agreement within VINCI – Renewal of the VINCI European Works Council agreement
4. To uphold the elimination of all forms of forced and compulsory labour.	<ul style="list-style-type: none"> – Risks explained in the Guide to Fundamental Social 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 the fundamental social rights guide, 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 154 diversity coordinators – Diversity courses included in the training of the Group's operational managers – A guidebook produced by VINCI was 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 – 37,336 hours of environmental training – 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"> – Development of a national biodiversity strategy for France and setting up of a coordinators' network and Biodiversity Committee. – Ongoing work to conserve biodiversity in partnership with environmental associations. – Participation on the strategic policy committee of the French Foundation for Research on Biodiversity
9. To encourage the development and dissemination of environmentally friendly technologies.	<ul style="list-style-type: none"> – 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 – Fifth Eco-design Chair seminar held, with the participation of almost 300 internal decision-makers and partners – 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
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 – Ongoing distribution of the Code of Ethics and Conduct to all management personnel – Managers acknowledged receipt of the 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 – Point 6 of our Subcontractor Relations Code of Practice sets out the need to comply with VINCI's values as expressed in its Manifesto and Code of Ethics and Conduct – Implementation of Advance, a sustainable development self-assessment questionnaire dealing with fundamental social rights; the questionnaire is intended for the management committees of Group companies

1. Workforce-related information

1.1 General human resources policy

This section follows precisely Article 225 of France's Grenelle 2 Environment Act. It is also based on the standards of the Global Reporting Initiative (GRI G4) – see the cross-reference table on pages 325 and 326.

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. As part of its approach to managing jobs and skills, since 2010 the Group has applied employee development plans to bolster its growth, in particular outside France. 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. VINCI's reputation has grown among young French engineers since its creation in 2000 and its powerful employer brand image earned it this target group's number eight ranking for best employer in the 2016 Universum survey in France.

1.2 Employment

1.2.1 Workforce

At the end of 2016, VINCI had 183,487 employees in over a hundred countries, slightly below the number at end-2015 (185,452 employees). This change reflects a reduction in staff in Europe and in certain business activities, offset by an increase in staff levels on major international projects and the consolidation of new companies. Staff employed by European entities as a percentage of the total workforce came to almost 79% in 2016. Staff employed outside Europe increased, from 20% of the total workforce in 2015 to 21% in 2016, in particular due to business growth.

Given the particularly difficult economic situation in Europe for several years now, VINCI's companies have responded by implementing a number of suitable 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. However, restructuring moves were carried out in conjunction with labour unions to propose the appropriate solution.

Workforce at 31 December 2016 by geographical area and by business line, with change

	2016								2015	2016/2015
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	Construction	VINCI Immobilier and holding cos.	Total		
France	6,530	643	510	33,612	22,215	31,105	858	95,473	52.0%	97,936 (2.5%)
United Kingdom	-	-	26	496	2,511	5,573	-	8,606	4.7%	8,506 1.2%
Germany	-	-	29	10,053	3,209	342	10	13,643	7.4%	13,880 (1.7%)
Benelux	-	2	1	4,114	534	209	5	4,865	2.7%	4,889 (0.5%)
Central and Eastern Europe	-	-	46	2,903	4,662	3,901	-	11,512	6.3%	11,500 0.1%
Rest of Europe	-	3,201	74	5,905	375	1,057	-	10,612	5.8%	10,861 (2.3%)
Europe excl. France	-	3,203	176	23,471	11,291	11,082	15	49,238	26.8%	49,636 (0.8%)
Americas	-	659	133	1,852	4,572	6,926	-	14,142	7.7%	13,010 8.7%
Africa	-	-	-	1,883	-	10,843	-	12,726	6.9%	12,479 2.0%
Rest of the world	-	1,567	-	3,615	-	6,726	-	11,908	6.5%	12,391 (3.9%)
Total	6,530	6,072	819	64,433	38,078	66,682	873	183,487	100.0%	185,452 (1.1%)

Since 2011, the percentage of managers has grown from 17% to 19%. At 31 December 2016, VINCI's workforce consisted of 35,774 managers and 147,713 non-managers. Over the same period, the percentage of female staff rose from 13.3% to 14.7% of total staff, representing an 11% increase. Women account for 13.7% of non-managers and 18.5% of managers.

Workforce at 31 December 2016 by category, gender and business line, with change

	2016								2015	2016/2015	
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.	Total		Total	Change
Managers	911	738	433	12,856	4,740	15,555	541	35,774	19.5%	35,724	0.1%
Men	592	465	293	10,859	4,049	12,552	343	29,153	81.5%	29,282	(0.4%)
Women	319	273	140	1,997	691	3,003	198	6,621	18.5%	6,442	2.8%
Non-managers	5,619	5,334	386	51,577	33,338	51,127	332	147,713	80.5%	149,728	(1.3%)
Men	3,246	3,917	223	45,227	29,888	44,792	111	127,404	86.3%	129,264	(1.4%)
Women	2,373	1,417	163	6,350	3,450	6,335	221	20,309	13.7%	20,464	(0.8%)
Total	6,530	6,072	819	64,433	38,078	66,682	873	183,487	100.0%	185,452	(1.1%)
Men	3,838	4,382	516	56,086	33,937	57,344	454	156,557	85.3%	158,546	(1.3%)
Women	2,692	1,690	303	8,347	4,141	9,338	419	26,930	14.7%	26,906	0.1%

The age structure at VINCI is solid, with 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 2016 by age and business line, with change

	2016								2015	2016/2015	
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.	Total	Total	Change	
Under 25	77	352	78	6,053	2,868	6,191	96	15,715	9%	15,865	(1%)
26-35	409	1,593	248	16,067	8,596	19,967	266	47,146	26%	49,321	(4%)
36-50	3,172	3,102	357	25,193	15,376	26,427	310	73,937	40%	74,283	(0%)
Over 50	2,872	1,025	136	17,120	11,238	14,097	201	46,689	25%	45,983	2%
Total	6,530	6,072	819	64,433	38,078	66,682	873	183,487	100%	185,452	(1%)

1.2.2 Recruitment and departures

The reduction in staff levels between 2015 and 2016 is the result of lower activity in some European countries, notably in the Contracting business in France (Construction, Energy and Roads), and comes despite the Group's international expansion, in particular on the American continent. Staff numbers returned to their 2011 levels, decreasing slightly from 185,452 employees in 2015 to 183,487 in 2016. Employee turnover of approximately 23% in 2016, which is in line with that of the sector, reflects the expiry of worksite contracts, in particular outside France. This is offset by 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) rose from nearly 45% in 2015 to 55% in 2016. Despite a challenging economic environment, VINCI again pursued its recruitment policy in 2016. In particular, 3,285 young people were hired for their first work experience, accounting for nearly 15% of all new hires in permanent jobs. VINCI hired 41,159 people worldwide in 2016, including 22,544 in permanent jobs (6,627 in France).

1.2.2.2 Types of employment contract

VINCI promotes permanent jobs, the proportion of which has been stable at about 89% of total staff over the past five years. Of the Group's 183,487 staff worldwide at end-2016, 163,047 were employed under permanent job contracts and 20,440 under non-permanent contracts (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 2016, 11,491 temporary staff (full-time equivalent) worked for VINCI in France, down 2% from 2015. 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. More than 4,200 young people received training under work-study programmes within VINCI in 2016 (4,300 in 2015).

Workforce at 31 December 2016 by type of employment contract and business line, with change

	2016								2015	2016/2015	
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.	Total		Total	Change
Permanent job contracts ^(*)	6,397	5,350	693	58,695	35,445	54,765	753	162,098	88%	160,819	1%
Site contracts ^(**)	-	1	8	128	85	727	-	949	1%	1,365	(30%)
Non-permanent job contracts ^(***)	53	715	106	3,222	1,762	10,188	51	16,097	9%	19,043	(15%)
Work-study programmes	80	6	12	2,388	786	1,002	69	4,343	2%	4,225	3%
Total	6,530	6,072	819	64,433	38,078	66,682	873	183,487	100%	185,452	(1%)
Temporary staff (full-time equivalent)	8	216	6	6,323	2,964	12,635	33	22,185	12%	23,487	(6%)

^(*) 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 2,790 in 2016. Group companies offer international volunteering programmes that give graduates the opportunity to work abroad, and 235 people were welcomed under these programmes in 2016, as in 2015. The Group had 1,874 expatriate employees at end-2016.

Worldwide intra-group transfers

2016									
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	Construction	VINCI Immobilier and holding cos.	Total	
Transfers within a business line	8	12	4	1,049	571	989	2	2,635	94%
Transfers to another business line	14	3	18	31	19	58	12	155	6%
Total	22	15	22	1,080	590	1,047	14	2,790	100%

1.2.2.3 Reasons for departure

The Contracting business lines (Energy, Roads and Construction) perform their projects 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, as seen in expired contracts.

Departures by business line, with change^(*)

2016										2015	2016/2015
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	Construction	VINCI Immobilier and holding cos.	Total		Total	Change
Expired contracts ^(**)	1,206	608	60	3,816	2,489	10,653	59	18,891	45%	21,825	(13%)
Resignations	32	118	38	3,232	1,804	5,266	29	10,519	25%	9,050	16%
Redundancies	-	76	-	729	106	1,493	1	2,405	6%	1,726	39%
Dismissals	40	34	4	1,637	1,477	1,909	9	5,110	12%	5,393	(5%)
Other reasons ^(***)	78	100	22	1,607	1,342	2,029	20	5,198	12%	4,161	25%
Total	1,356	936	124	11,021	7,218	21,350	118	42,123	100%	42,155	(0%)

^(*) 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

In 2016, due to the continuation of the difficult economic situation, some businesses underwent restructuring or even discontinued operations. In France, the building and civil engineering sector was again hard hit by the worsening of economic and social conditions, resulting in staff cuts. VINCI Insertion Emploi (ViE), the Group entity specialising in employment, leveraged its expertise in 2016 to support businesses that needed to reduce their workforce and help their employees develop a long-term career path.

Under such circumstances, and with business activities of a type that 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. 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 have to manage redundancy and staff redeployment moves that can sometimes be on a large scale. 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 2016, employees worked more than 321 million hours. The percentage of overtime hours has been stable for more than a decade, at between 5% and 6% of hours worked, compared with 5.7% in 2016, for a total of more than 18 million hours in 2016.

Organisation of working hours, with change

2016				2015	2016/2015
	Managers	Non-managers	Total	Total	Change
Total hours worked	60,570,650	260,911,852	321,482,502	320,653,846	0%
Of which overtime	560,834	17,762,512	18,323,346	17,000,795	8%
Number of part-time employees	829	4,934	5,763	5,598	3%

1.3.2 Absenteeism

Employees were absent from work 3.5 million days out of 42 million calendar days in 2016. Absenteeism represented 8% of working days. The percentage of non-occupational illnesses in absenteeism has been stable for more than a decade, at about 62% (58.7% in 2016). In contrast, the percentage of workplace accidents declined from 7% to 4.3%.

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

	2016							2015 2016/2015		
(in number of calendar days)	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding cos.	Total	Total	Change
Non-occupational illness	104,724	42,586	3,480	798,354	525,741	550,152	5,791	2,030,828	58.7%	2,032,872 (0%)
Workplace accident	6,104	10,412	489	36,164	36,722	59,922	255	150,068	4.3%	162,007 (7%)
Commuting accident	702	1,971	107	11,653	7,823	9,590	54	31,900	0.9%	29,801 7%
Recognised occupational illness	156	265	-	14,340	19,741	25,836	-	60,338	1.7%	66,421 (9%)
Maternity/paternity leave	5,525	16,966	2,210	114,306	50,800	102,483	3,666	295,956	8.5%	278,656 6%
Short-term work	-	-	-	14,207	57,325	48,214	-	119,746	3.5%	178,185 (33%)
Other cause	12,505	13,101	4,550	194,585	265,188	285,968	1,332	777,229	22.4%	796,999 (2%)
Total	129,716	85,301	10,836	1,183,609	963,340	1,082,165	11,098	3,466,065	100%	3,544,941 (2%)

1.4 Remuneration and employer social contributions worldwide

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 deployment of all these efforts. All employees, regardless of position, are rewarded in accordance with their responsibilities and performance.

At the end of 2016, over 96% of employees in France benefited from incentive plans and/or profit-sharing agreements. Again in France, VINCI distributed lower sums under profit-sharing and incentive plans than in previous years (€142 million, down from €160 million shared from the Group's growth in 2015).

Employee benefits, with change

(in € millions)	2016	2015	2016/2015 change	Of which France 2016	Of which France 2015	2016/2015 change
Incentive plans	73.0	76.0	(3.9%)	63.5	68.5	(7.3%)
Profit-sharing	86.3	95.1	(9.3%)	78.3	91.0	(14.0%)
Welfare protection	38.6	38.7	(0.3%)	32.9	33.5	(1.8%)
Employer contribution	111.0	110.1	0.8%	102.4	98.2	4.3%
Total	308.9	319.9	(3.4%)	277.1	291.2	(4.8%)

1.4.2 Remuneration and employer social contributions

Payroll expenses totalled €8,710 million in 2016 (€8,770 million in 2015). Payroll-to-revenue remained stable in the past five years, at about 22.9% (22.8% in 2015).

All the Group's main human resources directors meet on a monthly basis at which time they 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 paragraph 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, with change

	Total		Managers		Non-managers	
(in € thousands)	2016	2015	2016	2015	2016	2013
Average VINCI salary	35	35	62	61	29	28
Men	36	35	65	64	29	28
Women	32	31	48	47	26	26
Employer social contributions	35%	35%	38%	39%	33%	34%

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

	Total		Managers		Office, technical and supervisory staff		Manual workers	
(in € thousands)	2016	2015	2016	2015	2016	2015	2016	2015
Average VINCI salary	39	38	64	62	34	33	33	28
Men	39	38	67	65	35	35	35	28
Women	37	35	51	50	30	29	29	25
Employer social contributions	46%	48%	48%	50%	47%	48%	48%	44%

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 Scheme in France. The regularity of share issues ensures the strength and continuity of this scheme, 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 VINCI's share price and an employer contribution aimed at encouraging savings by the lowest-paid employees. Employer contributions were maintained in 2016 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 €98 million for France in 2016.

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 2016, a new plan was initiated in 29 countries⁽⁴⁾ to benefit employees of subsidiaries in which VINCI owns more than a 50% stake (the employees must have been with the Group for at least six months). 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 for three years 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 30 countries in 2017 with the addition of another country, Dominican Republic, bringing the number of employees covered to about 67,000 in 470 subsidiaries. This increases the plan's coverage to more than 75% of Group employees outside France who are eligible to become VINCI shareholders. In six years, staff covered by the employee savings plan has climbed from about 59% to 88% of Group employees worldwide.

Coverage of employee savings plans, with change

	2012	2013	2014	2015	2016
Number of countries covered (including France)	15	20	24	28	30
Percentage of employees covered	81%	86%	88%	87%	88%

At end-December 2016, about 120,000 current and former Group employees held almost 9.2% 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 €30,000.

Created in 2011, VINCI's Employee Shareholders' Circle had about 13,350 members at 31 December 2016, 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 and Paris, as well as visits to worksites or VINCI projects. The "En Direct" e-letter 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 Scheme, 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 2016, almost 38% 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 €1,700, an increase of over 13% from 2015. The percentage of investments under guided management continued to rise steadily to reach 46%, while 54% were managed by employees themselves.

Employer contributions to the Group's collective retirement savings plan totalled €3.9 million in 2016 for France, up 129% from the €1.7 million contributed in 2015.

⁽⁴⁾ Australia, Austria, Bahrain, Belgium, Brazil, Cambodia, Canada, Chile, Czech Republic, Germany, Hong Kong, Indonesia, Luxembourg, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Poland, Portugal, Romania, Singapore, Slovakia, Spain, Sweden, Switzerland, UAE, UK and USA.

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 while taking 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-2016, 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 2016, 8,932 employees around the world served as employee representatives (including 7,599 in France). An overall budget of €220,000 is distributed to the trade unions represented on the Group Works Council, mainly as a function of 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 18 countries in which VINCI operates: Austria, Belgium, the Czech Republic, France, Germany, Hungary, Italy, Lithuania, Luxembourg, the Netherlands, Poland, Portugal, Romania, Slovakia, Spain, Sweden, Switzerland and the UK. The role of the council, which meets at least 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-2016, the council was composed of 50 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 electronic exchange platform was set up in 2016 for members of the European Works Council. This tool was created to make communication easier between council members and enhance the information provided for employees of VINCI's European subsidiaries pertaining to the council's work. To fulfil its role, the European Works Council receives three days of training on legal, economic and social issues every year.

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 2016, 1,005 collective agreements were signed, of which 18% outside France.

The agreement to promote dialogue between management and labour within the French companies of the VINCI Group that was signed with labour representatives on 7 December 2015 was implemented in 2016, confirming consultation with employee representatives as one of VINCI's core values. The agreement provides for an improvement in information forwarded to employee representatives and for assistance for them throughout their terms 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.

The Group is currently looking at how it can implement recent regulations concerning the impact of collective agreements on economic performance and employees' working conditions and will communicate any necessary information on these issues in the most appropriate manner.

Collective agreements by category, with change

	2016	Portion of total agreements	2015	2016/2015 change
Flexible work arrangements	99	9.9%	142	(30.0%)
Equality and diversity	52	5.2%	87	(40.2%)
Union rights	58	5.8%	75	(22.7%)
Training	5	0.5%	28	(82.1%)
Job and skill management systems	50	5.0%	44	13.6%
Health and safety	42	4.1%	55	(24.5%)
Welfare protection	57	5.7%	101	(43.6%)
Remuneration and benefits	607	60.4%	550	10.4%
Pensions	4	0.4%	7	(42.9%)
Other	31	3.1%	73	(57.5%)
Total	1,005	100.0%	1,162	(13.5%)

More than 60% of the agreements related to salary. Among the other collective agreements, many involved flexible work arrangements, with the signing of 99 agreements in 2016. The number of agreements relating to union rights declined from 75 in 2015 to 58 in 2016.

1.5.5 Collective conflicts

Absenteeism due to strikes is very marginal at VINCI. In 2016, employee absences due to strikes totalled 17,270 days (of which 15,646 in France) out of a total of 42 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, car park and airport customers, etc.). The Group encourages and supports its subcontractors and suppliers in this effort by sharing tools and resources with them and by involving them in safety actions. VINCI's Subcontractor Relations Code of Practice, issued in 2013, sets out a clear guide to the Group's policy on this topic. The implementation of this priority policy has led to significant improvement in the safety results, in particular in recent years, with the reduction in frequency of lost-time workplace accidents to 6.84 (from 7.08 in 2015).

In 2016, 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 such as the World Safety Week organised by VINCI Energies and VINCI Construction in 2016. 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. Its aim is 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. It facilitates joint efforts on issues of shared concern and the implementation of shared measures. Social networks, internal collaborative platforms and mobile applications facilitate the dissemination and monitoring of safety events to the approximately 100-strong H&S staff community.

Training, awareness-raising 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).

As a result of these various actions, the proportion of companies with no lost-time workplace accidents has risen from 60% to 70% in five years, which represents an increase of more than 17%.

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

	Group			Of which France		
	2016	2015	2016/2015 change	2016	2015	2016/2015 change
Lost-time workplace accident frequency rate ^(*)	6.84 <input checked="" type="checkbox"/>	7.08	(3.4%)	8.67	9.07	(4.4%)
Lost-time severity rate ^(**)	0.47 <input checked="" type="checkbox"/>	0.51	(7.8%)	0.78	0.85	(8.2%)
Percentage of companies with no lost-time workplace accidents	70%	71%	(1%)	64%	66%	(3%)

^(*) 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 workplace accidents declined from 10.3 in 2011 to 6.84 in 2016.

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

	Frequency rate		Severity rate	
	2016	2015	2016	2015
Concessions	16.14	18.95	0.82	0.92
VINCI Autoroutes	5.30	9.50	0.69	1.02
VINCI Airports	26.37	30.17	0.97	0.85
Other concessions	4.24	4.59	0.41	0.57
Contracting	6.21	6.31	0.44	0.48
VINCI Energies	5.41	5.86	0.34	0.37
Eurovia	6.90	7.85	0.58	0.69
VINCI Construction	6.54	5.92	0.46	0.46
Group	6.84 <input checked="" type="checkbox"/>	7.08	0.47 <input checked="" type="checkbox"/>	0.51

☒ Data checked to a level of reasonable assurance.

In 2016, occupational illnesses recognised in the Group were responsible for 60,338 days lost out of a total of 42 million days worked, down more than 9% compared with 2015.

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

	Group			Of which France		
	2016	2015	2016/2015 change	2016	2015	2016/2015 change
Days lost through recognised occupational illness	60,338	66,421	(9.2%)	59,775	65,781	(9.1%)
Recognised occupational illness frequency rate ^(*)	1.13	1.24	(8.9%)	2.28	2.66	(14.3%)
Recognised occupational illness severity rate ^(**)	0.19	0.21	(9.5%)	0.41	0.45	(8.9%)

^(*) 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.

In 2011, under the terms of the Group's framework agreement in France, temporary employment agencies were selected on economic and non-financial data. In 2015, a new call for tenders was issued, incorporating the more comprehensive occupational health and safety criteria. This new reference came into effect on 1 January 2016.

The difference between the 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. Due to the measures taken vis-à-vis the latest framework agreements, the accident frequency rate of temporary staff in VINCI companies in France contracted, in particular in the Concessions businesses. In France, this rate was 19.95 in 2016; the lower demand for temporary staff is reflected in the decline from 23,487 in 2015 to 22,185 temporary staff used worldwide in 2016 (full-time equivalent).

Lost-time workplace accident frequency of temporary staff by business in France, with change^(*)

	2016	2015	2016/2015 change
Concessions	-	13.39	(100.0%)
Contracting	20.17	24.80	(18.7%)
Total	19.95	24.66	(19.1%)

^(*) 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 €7.9 billion in 2016, 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 Code of Practice underscores 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 code is 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 2016, one of the main subjects of collective bargaining was the prevention of factors that render work more arduous, with the overriding aim of optimising working conditions in VINCI businesses.

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 2016, and will continue to do so in the years ahead.

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 best respond to clients' needs 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. The shift in projects towards ever more complex and comprehensive Group infrastructure is also generating new training needs to take advantage of business synergies.

To achieve these goals, VINCI's companies have set up internal training centres. At Group level, VINCI Academy organises management and project management training programmes, and other cross-disciplinary courses for senior managers of the Group and its operational subsidiaries. A new pedagogical approach was introduced in 2016. In the last quarter, the Group went live with an online learning tool designed to serve as a comprehensive knowledge base for disseminating the Group's approaches and expertise.

Two headline projects were launched. The first provides an overview of the Group to help integrate new hires at VINCI. The second is on temporary infrastructure and focuses on worksite organisation and safety.

In 2016, 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 roll-out of a large number of programmes in project management, worksite preparation and organisation, safety, know-how and skills development for staff and subcontractors, as well as partners.

The use of digital technology and new learning techniques made such acceleration possible. VINCI Energies now has more than 13 e-learning modules and seven training modules available on a mobile app in the areas of human resources, marketing and safety.

International development strengthened in 2016. To underpin this growth, VINCI Construction Grands Projets continued the roll-out of its Skill Up programme, which aims to develop the knowledge and skills of operational and supervisory staff (manual workers, foremen 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 people employed on the projects. In 2016, Skill Up training centres were set up in three countries: Egypt, Dominican Republic and Djibouti. More than 400 project participants (employees, subcontractors and partners) received training under the programme, thus helping to further develop their employability upon completion of work at the sites.

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

Business line	Internal training centre	Number of training hours in 2016	2016/2015 change	Number of trainees in 2016	2016/2015 change
VINCI ^(*)	VINCI Academy	5,585	88.9%	434	156.8%
Concessions		157,298	(10.4%)	17,994	(12.8%)
VINCI Autoroutes	Parcours Cofiroute, Parcours ASF, Parcours Escota	124,378	(20.0%)	15,497	(15.2%)
VINCI Airports	VINCI Airports Academy	32,920		2,497	
Contracting		610,657	6.5%	36,526	9.9%
VINCI Energies	VINCI Energies Academy, Cegelec Group University	154,775	0.3%	9,473	3.1%
Eurovia	Road Industry Training Centre	91,157	(12.0%)	3,365	(6.0%)
VINCI Construction ^(**)		364,725	15.7%	23,688	15.7%
Total		773,540	2.9%	54,954	1.7%

(*) 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 2016, an average of 17.6 hours of training per employee was provided within the Group, with managers receiving 20 hours and non-managers 17. Seventy-two percent of managers received training. More than €185 million was spent on training in 2016. Over 3.2 million hours of training (up 3.9% from 2015) mainly involved technical training (40%), and health and safety matters (38%). In 2016, VINCI advanced its goal of fostering the professional development of all its employees by providing each of them with personalised training: 122,936 employees received training, representing 67% of staff.

Breakdown of training hours by subject, with change

	2016						2015	2016/2015	
	Managers	Non-managers	Men	Women	Total	%	Of which France	Total	Change
Technical	205,152	1,075,016	1,151,506	128,662	1,280,168	39.8%	675,441	1,248,773	2.5%
Health and safety	158,393	1,057,729	1,116,541	99,581	1,216,122	37.7%	728,643	1,160,321	4.8%
Environment	8,376	28,960	30,471	6,865	37,336	1.2%	14,583	41,397	(9.8%)
Management	137,793	86,450	186,752	37,491	224,243	7.0%	130,057	203,819	10.0%
Admin and support	115,458	140,001	166,327	89,132	255,459	7.9%	157,376	252,046	1.4%
Languages	58,783	71,305	88,073	42,015	130,088	4.0%	43,391	129,451	0.5%
Diversity training	1,508	5,075	4,760	1,823	6,583	0.2%	2,439	7,514	(12.4%)
Other	23,883	41,422	48,957	16,348	65,305	2.0%	30,543	61,917	5.5%
Total	709,346	2,505,958	2,793,387	421,917	3,215,304	100.0%	1,782,473	3,105,238	3.5%
Hours of training per employee	20	17	18	16	18		19	17	3.5%

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 (154 of them at end-2016). 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. The main topics examined at the two meetings held in 2016 were religious diversity and discrimination. VINCI Academy continued to develop its training course for Group managers on managing diversity in the pursuit of performance. In all, 75 participants completed this course in 2016.

In July 2016, a digital platform for Group employees was launched to measure how well companies fare when tested for discrimination. 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.

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 2016, 10 Group companies had earned the label, covering 9.8% of staff in France. Meanwhile, five other companies have entered into the accreditation process.

Diversity is an integral part of dialogue between management and labour. There were 52 collective agreements signed on equality and diversity in 2016. 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 2020. Women accounted for 19% of the total number of managers worldwide and 21% of managers in France at end-2016 (20% in 2015).

Since 2011, the number of the Group's women employees has grown from 24,301 to 26,930, representing an increase of almost 11%. During the same time frame, the number of Group employees has remained virtually unchanged, rising from 183,320 to 183,487.

Women employees by business line, with change

	2016						2015	2016/2015
	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
Cessions	732	35%	3,953	35%	4,685	35%	4,663	0%
VINCI Autoroutes	319	35%	2,373	42%	2,692	41%	2,779	(3%)
VINCI Airports	273	37%	1,417	27%	1,690	28%	1,604	5%
Other concessions	140	32%	163	42%	303	37%	280	8%
Contracting	5,691	17%	16,135	12%	21,826	13%	21,880	(0%)
VINCI Energies	1,997	16%	6,350	12%	8,347	13%	8,395	(1%)
Eurovia	691	15%	3,450	10%	4,141	11%	4,124	0%
VINCI Construction	3,003	19%	6,335	12%	9,338	14%	9,361	(0%)
VINCI Immobilier and holding cos.	198	37%	221	67%	419	48%	363	15%
Total	6,621	19%	20,309	14%	26,930	15%	26,906	0%

1.8.3 Measures to promote the employment and social integration of disabled people

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 disabled people have three main strands: the redeployment of incapacitated staff, the hiring of disabled people, 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 disabled people and generally support Group companies in the area of disability. The entity developed significantly during the year. Full coverage was extended to all of Metropolitan France in 2016. Out of 463 requests received from VINCI employees, Trajeo'h took on 433 cases, up 26% from 2015.

In 2016, 3,838 people with disabilities were working within the Group. They represent 2.1% of Group employees. Faceo Entreprise Adaptée, a social enterprise working in the field of facilities management, had a total of 58 disabled employees, accounting for 94% of total staff at end-2016.

In 2016, €5.9 million of revenue was awarded to companies with workforces primarily comprised of employees with disabilities. This represents a year-on-year decrease of 8.7%. The distribution of a guidebook to purchasing officers and managers continued. The guidebook explains the workings of companies employing mainly disabled people and the types of service they perform. The kit includes a guidebook, a contract template, a film and visual awareness props. The geo-tracking system for companies with workforces primarily made up of employees with disabilities (EA and ESAT) developed by VINCI Energies France is being adapted at the Group's business lines to prepare for the system's widespread application in 2017.

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 increase in 2015 for VINCI, this levy fell to €4.4 million in 2016, a level closer to the €4.6 million that was its average for many years.

Proportion of employees with disabilities by business line, with change

	2016					2015	2016/2015	
	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	Change
Concessions	29	1.4%	414	3.7%	443	3.3%	435	1.8%
VINCI Autoroutes	27	3.0%	394	7.0%	421	6.4%	415	1.4%
VINCI Airports	-	0.0%	14	0.3%	14	0.2%	14	0.0%
Other concessions	2	0.5%	6	1.6%	8	1.0%	6	0.9%
Contracting	349	1.1%	3,033	2.2%	3,382	2.0%	3,378	0.1%
VINCI Energies	170	1.3%	1,430	2.8%	1,600	2.5%	1,583	2.4%
Eurovia	26	0.5%	684	2.1%	710	1.9%	741	(4.2%)
VINCI Construction	153	1.0%	919	1.8%	1,072	1.6%	1,054	1.7%
VINCI Immobilier and holding cos.	4	0.7%	9	2.7%	13	1.5%	17	(23.5%)
Total	382	1.1%	3,456	2.3%	3,838	2.1%	3,830	0.2%

2. Environmental information

2.1 General environmental policy: "Promote green growth together"

2.1.1 Environmental organisation

The implementation of VINCI's environmental policy, "Promote green growth together" (see page 31), is built on the Group Executive Committee's commitment, the empowerment of all operational staff within Group companies, and extremely open dialogue with national, European and international public authorities and environmental protection organisations. The operational departments rely on a network

of over 500 correspondents who are in charge of managing environmental risks. These correspondents coordinate and ensure the application of VINCI's environmental policy in all aspects of day-to-day work. 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 2 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 G4 Sustainability Reporting Guidelines and adapted to the Group's activities (see the cross-reference table on pages 325 and 326). It 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 reports are 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 198 to 200, covers the key points.

Environmental reporting coverage continued to account for more than 95% of total revenue generated by companies in the new scope at end-2016. This rate grew steadily until 2014, with all parts of the Concessions business integrated. It has fallen, however, due to the difficulty in significantly increasing coverage for short-term international projects. Another factor is the increase in revenue outside Europe. At VINCI Construction, coverage has decreased following the completion of some large-scale projects outside France and the launch of new projects. Lastly, reporting processes need to be standardised at companies acquired in 2015 outside France (HEB Construction). Efforts continue to focus on short-term projects outside Europe to cover 100% of revenue. This data is monitored at worksites but is not yet consolidated at Group level.

Environmental reporting coverage – excluding acquisitions in 2016

<i>(as a percentage of revenue)</i>	2016	2015	2014
Concessions	100	100	98
VINCI Autoroutes	100	100	100
VINCI Airports	100	100	100
Other concessions	100	94	-
Contracting	-	-	-
VINCI Energies	99	99	100
Eurovia	99	99	96
VINCI Construction	90	97	97
VINCI Immobilier	100	100	100
Total	95	98	98

VINCI has submitted its workforce-related, environmental and social information for review by its Statutory Auditors since 2002. In 2014, 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 consolidating information from the different business lines and businesses, the independent third party carries out interviews and surveys on the application of the guidelines at subsidiaries. In 2016, the following subsidiaries were audited: Eurovia, Sogea-Satom, VINCI Airports, VINCI Autoroutes (ASF, Cofiroute and Escota), VINCI Construction France, VINCI Construction UK, VINCI Energies Europe and VINCI Energies International & Systems. The international companies in the Contracting business are closely monitored, particularly in Burkina Faso, Chile, Germany, Morocco, Portugal 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 2 Environment Act of 12 July 2010, and additional provisions set forth in Decree no. 2016-1138 of 19 August 2016 in application of the law on the energy transition for green growth (Article 173) and on combating food waste.

Having been one of the first companies in France to support voluntary reviews of its data, VINCI is continuing its efforts. The Group considers transparency with respect to stakeholders as 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 Environmental training

All VINCI companies make efforts to raise awareness of environmental issues, and a total of 37,336 hours of environmental training were delivered in 2016. 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 and is being developed in other countries. For example, in 2016, 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
	2016	2015	2016/2015
Concessions	8,426	7,120	18%
VINCI Autoroutes	7,534	6,838	10%
VINCI Airports	807	110	634%
Other concessions	85	172	(51%)
Contracting	28,910	34,277	(16%)
VINCI Energies	5,231	5,439	(4%)
Eurovia	7,167	9,693	(26%)
VINCI Construction	16,512	19,145	(14%)
VINCI Immobilier and holding cos.	-	-	0%
Total	37,336	41,397	(10%)

2.1.4 Preventing environmental incidents

Each Group entity prepares and updates environmental incident prevention plans that address its specific environmental risks. 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, engineering and design departments, construction managers and skilled site workers receive environmental risk prevention training tailored to their activities. The training covers both regulations and the adoption of best practices.

In 2016, VINCI or its subcontractors were involved in three major environmental incidents (four in 2015). 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. Two of the incidents occurred outside France and involved oil leaks (one in Jamaica and one at a worksite in Zwickau, Germany). The third resulted in water and soil pollution in Quebec province in Canada. They were all handled in accordance with applicable regulations.

2.1.5 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 2016. VINCI Autoroutes has had all its in-service motorways ISO 14001 certified, while VINCI Airports has had 12 airports certified, corresponding to 72% of its revenue. The proportion of revenue generated by certified contracting entities is steadily increasing, particularly at VINCI Energies, with 43% now certified compared with 24% in 2010, and VINCI Construction, with 81% certified compared with 59% in 2010.

Group activities covered by ISO 14001 environmental certification

(as a percentage)	2016	2015	2014	Scope/base reference
VINCI Autoroutes				France
Motorways in service	100	100	100	in number of kilometres
Motorways under construction	100	100	100	in number of kilometres
VINCI Airports, percentage of revenue	72	72	69	France and worldwide
Other concessions, percentage of revenue	18	7		France and worldwide
VINCI Energies, percentage of revenue	43	40	34	France and worldwide
Eurovia				France and worldwide
Production from quarries owned	60	63	63	in tonnes
Production from coating plants owned	45	39	39	in tonnes
Production from binder plants owned	33	61	61	in tonnes
Revenue from the works activity	25	32	32	France and worldwide
VINCI Construction, percentage of revenue	81	75	64	France and worldwide

VINCI companies have acquired substantial expertise in meeting a variety of environmental standards, including HQE, BREEAM® and LEED®. In 2016, they delivered 305 certified projects, of which 36 BREEAM® projects and 29 LEED® projects involving both new and refurbished buildings for a total of €2.9 billion. Since 2010, these certification labels have been awarded to 2,441 projects amounting to €23.8 billion. VINCI Construction France renovated a 1950s building in Paris that was once the head office of Euler Hermes. This 12,000 sq. metre office building received environmental certification from three organisations – meeting the standards HQE™ Renovation Excellent, BREEAM® Europe Commercial 2009 Very Good and LEED® Core & Shell 2009 Gold – and was awarded the Effinergie Renovation Energy Efficient Building label. It is one of some 100 developments of the Blue Fabric sustainable construction brand of VINCI Construction France since the launch of the brand. In 2016, the L'Echo building in Villeurbanne, France was one of the first to be awarded the new BBCE label for low-carbon buildings (Bâtiment Bas Carbone). VINCI Immobilier delivered Be Open, the linchpin in the new office complex located within the Paris Rive Gauche development in France. This commercial building covering 8,670 sq. metres of office space and 600 sq. metres of shops is one of the first commercial properties in France to comply with the country's 2012 thermal regulations (RT 2012). It meets HQE, BREEAM® Very Good and Effinergie+ certification standards.

2.2 Resource conservation and the circular economy

2.2.1 Sustainable use of resources

2.2.1.1 Protecting water resources

VINCI answered the CDP Water Disclosure questionnaire for the fifth time, to be once again included as one of the 607 companies world-wide capable of fulfilling the information request supported by 643 global investors. The Group achieved a rating of B- for 2016, 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. An International Hydraulic Engineering Activity Pivot Club identifies expertise and designs new, specific offers 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.

Group companies monitor water resources particularly carefully. Subsidiaries have adopted a number of specific initiatives to reduce their consumption. For example, of all the VINCI motorways in service, 77% have been equipped with either natural water protection systems or engineering structures that address potential problems. The policy for protecting water resources was strengthened by the adoption of the green motorway package in 2010, and remains a key strategy in 2016 as part of the motorway stimulus plan. Under this plan, ASF firming its commitment in 2016 to launch the initial upgrades to protect wildlife and water resources and save water. 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.

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 used to 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), with change

	2016	2015	Change
Concessions	1,869,839	1,813,397	3.1%
VINCI Autoroutes	841,552	791,110	6.4%
VINCI Airports	978,668	976,551	0.2%
Other concessions	49,619	45,736	8.5%
Contracting	7,682,786	6,321,956^(*)	21.5%
VINCI Energies	321,236	296,764	8.2%
Eurovia	3,244,483	1,330,994	143.8%
VINCI Construction	4,117,067	4,694,198 ^(*)	(12.3%)
VINCI Immobilier	1,782	5,663	(68.5%)
Total	9,554,407	8,141,016^(*)	17.4%

(*) 2015 data revised for the VINCI Construction UK scope.

The significant differences in the types of project in the Contracting business from one year to the next explain the marked variation in consumption. The sharp increase at Eurovia stems from updating the unit prices used to estimate the data. The rise is also due to increased water use at some quarries (Germany, Czech Republic and the Centre-Val de Loire and Nouvelle Aquitaine regions in France). Consumption rose for the Concessions business, due in particular to the inclusion of airport concessions in the reporting scope and the need to water pitches at stadiums during UEFA Euro 2016. The slight increase at VINCI Autoroutes came as ASF now incorporates irrigation water purchases. 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 its 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 from boreholes, with change

	2016				2015			
(in cubic metres)	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	369,922	53,856	4,441	428,219	373,188	56,323	2,700	432,211

(*) Scope now includes the airports in Cambodia compared with 2015.

(**) 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 simply to provide the communities with 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. These examples show the complexity of measuring consumption given the diversity of VINCI's businesses. The score achieved on the 2016 CDP Water Disclosure questionnaire (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 2016, 787,071 tonnes of asphalt mix, including nearly 453,000 tonnes of recycled mix, were used for motorway maintenance. Due to milder winter temperatures during the year, 16,396 tonnes of de-icing salt were used (30,195 tonnes in 2015). This meant that fewer preventive measures were required 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, used to build about 2,613 homes between 2012 and 2016, reduces raw materials consumption by 20%.

The specialised businesses of VINCI Construction France operating under the brand Arbonis are the leaders in French timber construction. They generated revenue of over €45 million in 2016 (€41 million in 2015). The expertise of Arbonis was showcased in 2016 with the construction of the Aqualagoon water park for Villages Nature® Paris. Located 32 km outside Paris, this 9,000 sq. metre complex covered by a huge glass pyramidal structure designed by Jacques Ferrier includes a 2,500 sq. metre open air lagoon heated by geothermal energy for water at more than 30 °C year-round.

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. 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. In 2015, Granulat+ was rolled out and adapted in the Greater Paris region and Haute Normandie. In 2016, Eurovia continued its involvement with the French Circular Economy Institute, further strengthening its relations with circular economy stakeholders. 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.

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.

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) form a major part of the Grenelle environment legislation and seek to encourage low-energy buildings. These regulations came into effect in 2014. To meet the new requirements while maintaining costs, VINCI is developing new systems for both housing and offices, drawing on VINCI Construction's expertise to minimise energy losses through the building shell and 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), 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. With its Oxygen® eco-commitment, VINCI Construction France guarantees the energy performance of both the new and refurbished buildings it delivers and provides ways for occupants to optimise their energy use. In 2016, this programme was deployed for 46 Oxygen® developments, the most significant of which were new office buildings in Seynod, Meyland and Lyon in France. These projects were conducted in collaboration with an independent design office for the design and energy performance warranty phases. They allow VINCI Construction France to position itself in the verification and certification market, and to promote Oxygen® in order to make it better known and raise its profile.

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 a third-party company. It can be used by anyone involved in urban planning (contractors, engineers, designers, other companies).

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

	2016				2015	Change
	Natural gas (MWh)	Propane / LPG (MWh)	Electricity (MWh)	Total energy (MWh) ^(*)		
Concessions	42,138	1,547	281,035	457,608	465,723	(1.7%)
VINCI Autoroutes	5,508	783	127,419	227,032	230,683	(1.6%)
VINCI Airports	36,044	764	139,802	212,918	211,882	0.5%
Other concessions	586	-	13,813	17,658	23,158	(23.8%)
Contracting	1,100,684	2,926	718,118	7,368,471	7,734,344	(4.7%)
VINCI Energies	48,763	390	89,075	859,029	869,300	(1.2%)
Eurovia	1,018,905	235	322,794	3,675,455	3,703,873	(0.8%)
VINCI Construction	33,016	2,300	306,251	2,833,987	3,161,171	(10.4%)
VINCI Immobilier	20	-	2,382	4,662	4,886	(4.6%)
Total	1,142,843	4,473	1,001,534 <input checked="" type="checkbox"/>	7,830,741 <input checked="" type="checkbox"/>	8,204,954 <input checked="" type="checkbox"/>	(4.6%)

(*) 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 fallen 4.6% at the end of 2016 compared with 2015. In relative terms, Group energy intensity totalled 206 MWh per million euros of revenue for the reporting period, compared with 223 MWh in 2015. This decrease, which is greater than the fall in revenue, rewards the efforts made by Group companies. Improvements made to reporting methods in 2016 provided ways 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. As such, 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. In 2013, the company developed the Bridge solution, a dashboard used to monitor energy consumption at different operational levels (delegation, region, etc.). It is also developing 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 11% of French production in 2016 (13% in 2015).

In 2015, VINCI Airports developed a new environmental policy, which completed its first year of implementation in 2016. One of the four main goals in this policy is to achieve a 20% reduction in energy intensity by 2020 in comparison with 2013. To meet this target, VINCI Airports will boost the energy efficiency measures taken at all its airports in operation. 2016 was the first year this policy was implemented. The policy also 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.

VINCI Construction France had set itself the target of a 40% share of its worksite bungalows to be energy-efficient by 2016. In 2015, the share was already 78% and this rose to 81% in 2016. The proportion of very energy-efficient bungalows was 32% (24% in 2015). Arbonis the brand covering the subsidiaries of VINCI Construction France specialised in timber-related activities, developed the Sylvabox. This wood-framed worksite bungalow features enhanced insulation that reduces energy consumption by 80% compared with traditional bungalows.

Fuel consumption, with change

(in litres)	2016			2015	Change
	Diesel (*)	Petrol	Total		
Concessions	12,585,280	192,435	12,777,715	13,644,165	(6.4%)
VINCI Autoroutes	8,964,972	8,335	8,973,307	9,583,089	(6.4%)
VINCI Airports	3,417,444	73,666	3,491,110	3,832,430	(8.9%)
Other concessions	202,864	110,434	313,298	228,646	37.0%
Contracting	476,358,311	18,306,575	494,664,886	530,233,557	(6.7%)
VINCI Energies	66,269,766	3,037,985	69,307,751	70,112,596	(1.1%)
Eurovia	180,363,571	6,899,579	187,263,150	192,766,986	(2.9%)
VINCI Construction	229,724,974	8,369,011	238,093,985	267,353,975	(10.9%)
VINCI Immobilier	217,282	-	217,282	201,447	7.9%
Total	489,160,873	18,499,010	507,659,883	544,079,169	(6.7%)

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

The 6.7% decrease in fuel consumption in 2016 results from both a drop in business activity, especially for the Contracting business, and the effectiveness of the environmental policy.

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 2016, 23 car parks providing 1,799 parking spaces were reserved for carpooling, up from 19 car parks with 1,485 spaces in 2015.

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 2016, these purchases totalled 15,614 MWh compared with 6,450 MWh in 2015, up nearly 800% in five years at both fixed sites and worksites.

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 2016, Omexom continued its expansion in Africa and completed the solar power plant in Bokhol, Senegal. Its 75,000 solar panels generate 20 MW of power, making Bokhol the largest electric power plant in Western Africa. The facility supplies electricity to 160,000 people in northern Senegal, a country where almost half the population lives without access to electric power. VINCI Construction is developing technical solutions to industrialise construction and optimise the installation of onshore and offshore wind farms. This was the focus of the Eolift research project, overseen by Freyssinet. This project won the large-scale wind power call for interest launched by Ademe, France's environment and energy management agency, under the French government's "Investissements d'Avenir" (Investment for the future) programme, which was continued in 2016.

VINCI Autoroutes has 2,812 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. Group companies specialised in environmental engineering (such as Eurovia's subsidiary Cognac TP and VINCI Construction Terrassement) take measures to restore the ecological balance of land and environments affected by construction works (native species plantations, 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 changes to the landscape also offer the opportunity to create new environments and plant new, even protected, species. The initial diagnostics are now carried out 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. Some sites offer government agencies the possibility of recreating a space with ecological functions that surpass those of the original environment. For example, Eurovia conducts research into the quality and functions of soil reconstituted with sediment dredged from the Port of Rouen and used to fill the ballast pits at the Yville sur Seine quarry in Normandy following the extraction phase. The study showed comparable resulting soil quality at both chemical and geological levels. This work also created a wetland featuring a number of ecological functions that did not previously exist in the area.

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. This policy is closely associated with the eco-design strategy used in VINCI's products and services. 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 car parks, motorways, etc. The Group's subsidiaries implement waste management plans at their worksites in accordance with local requirements. VINCI makes an annual count of the amounts of waste it generates and recovers.

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; 66.5% of VINCI Autoroutes waste was recovered in 2016 versus 56% in 2015. VINCI Construction UK maintained a high waste recovery rate in 2016, i.e. 98% (97% in 2015 and 88% in 2014). In France, the Revalo programme initiated by GTM Bâtiment (VINCI Construction France) and supported by Ademe and France's Ministry of the Environment, Energy and the Sea now applies to all VINCI Construction France subsidiaries. Across the 40 test sites that have implemented the programme since its launch (25 worksites until 2015), twice as much waste was sorted, with a 42% reduction in the use of trucks compared with a traditional worksite (37% in 2015). GTM Bâtiment achieved a waste recovery rate of 75.7% (72% in 2015), surpassing the French and European regulatory requirement of 70%. The Optidéchets platform was expanded in 2016 and now covers 149 worksites. 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.

Hazardous and non-hazardous waste in 2016

(in tonnes)	2016					2015				
	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)	17,412	12,722	1,830	357,146	316,385	20,133	8,011	536	368,684	368,594
Hazardous waste (customers + operations)	1,225	469	197	2,242	457	2,293	458	122	1,752	4,316

(*) 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 there has been a veritable boom in the development of innovative products and processes that use smaller amounts of natural resources and energy. Eurovia now has 130 facilities that recycle most of the waste produced by worksites. 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 2016 in France, making Eurovia the market leader in this field.

Waste recycling and recovery at Eurovia in 2016, with change

	2016			2015		
	World	2016/2015 change	France	2016/2015 change	World	France
Percentage of asphalt mix made with reclaimed asphalt pavement	15.9	109%	13.5	(5%)	7.6	14.2
Production of recycled material (<i>in millions of tonnes</i>)	6.4	5%	5.2	5%	6.1	5.0
Total recycled material as a percentage of total aggregate production	4.4	(38%)	9.2	8%	7.1	8.5

The law introduced by the French government to combat food waste does not have 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 the disadvantaged. In another action, the Stade de France has set up a partnership with Chaînon Manquant. The day after every event at the Stade de France, this organisation collects sandwiches and desserts that have been maintained in the cold chain. In 2016, the equivalent of 2,300 meals were distributed to care centres and restaurants for the needy in Paris and near-by Saint Denis, avoiding 1.2 tonnes of food waste.

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 VINCI Concessions, Eurovia and VINCI Construction. In Concessions, especially VINCI Airports and VINCI Autoroutes, most air emissions are generated by users (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. This process has been adapted and combined with noise barriers to abate noise pollution as well. NOXer® removes between 15% and 25% of total air pollution and reduces up to 75% of nitrogen oxides for local residents. VINCI Construction France and the facilities management activities of VINCI Energies are developing new techniques to 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 projects from the briefing phase until after hand-over.

2.2.3.2 Noise pollution

All VINCI projects are subject to a preliminary noise study to limit the pollution generated by urban construction sites, motorway traffic and so forth. VINCI companies systematically offer technical solutions during the construction phase, including changing a motorway route, erecting noise barriers and embankments, and using special low-noise road surfacing materials such as Eurovia's Viaphone®.

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 2016, 296 new homes were protected from noise on VINCI Autoroutes motorways, making a total of 4,311 since 2010.

2.3 Combating climate change

In 2007, VINCI initiated a proactive programme to reduce and control greenhouse gas emissions in order to anticipate, monitor and comply with legislation in the most advanced countries in this area. The impact of current carbon emissions regulations on VINCI's activities is mainly indirect. VINCI has eight facilities that are subject to phase III of the European emissions trading scheme's National Allocation Plan (see page 130) and must comply with the Carbon Reduction Commitment in the United Kingdom. VINCI Autoroutes continued to raise awareness about its CO₂ and supports the actions of the Shift Project. New regulations are opening up opportunities for VINCI, whose companies now offer their customers climate-friendly solutions that enable them to reduce their own greenhouse gas emissions. VINCI has been committed to green growth since 2012, with a target to reduce greenhouse gas 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 report their Scope 3 emissions.

2.3.1 Greenhouse gas emissions

The methodology used to determine the greenhouse gas 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, work-sites 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 2016 amounted to about 2.6 million tonnes based on the new methodology and updated emission factors (2.2 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 2 Environment Act, which requires companies to conduct greenhouse gas emission audits and define action plans to reduce their emissions. These audits, which must now be performed at four-year intervals, were all renewed in 2015. The Group's emissions are calculated using factors included in the carbon database of Ademe.

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

	Tonnes of CO ₂ equivalent – Actual values (emissions updated based on new emission factors)	Tonnes of CO ₂ equivalent – Monitoring of reduction target (applying previous emission factors)	Tonnes of CO ₂ equivalent	2016/2015 change
	2016	2016	2015	
Concessions	135,705	117,998	115,591	2.1%
VINCI Autoroutes	40,319	32,884	34,394	(4.4%)
VINCI Airports	91,865	81,853	77,456	5.7%
Other concessions	3,521	3,261	3,741	(12.8%)
Contracting	2,419,402	2,114,315	2,166,359	(2.4%)
VINCI Energies	252,087	215,007	218,063	(1.4%)
Eurovia	1,209,554	1,057,672	1,065,489	(0.7%)
VINCI Construction	957,761	841,636	882,806	(4.7%)
VINCI Immobilier and holding cos.	888	730	711	2.7%
Total	2,555,995 <input checked="" type="checkbox"/>	2,233,043 <input checked="" type="checkbox"/>	2,282,661 <input checked="" type="checkbox"/>	(2.2%)
Carbon intensity (tonnes of CO₂ equivalent per million euros of revenue)	-	58.7	59.3	(1.1%)

Data extrapolated to cover 100% of VINCI's revenue – excluding acquisitions in 2016.

☒ Data checked to a level of reasonable assurance.

The Group's direct emissions (Scope 1 and 2) fell slightly compared with 2015 using the methodology that applies the same emission factors from one year to the next to monitor the reduction target. This smaller reduction in emissions than in previous years results from the expansion of new energy sources and more reliable monitoring of these sources, which reflects the continuous improvement in reporting to monitor the Group's main sources of emissions. Carbon intensity in tonnes of CO₂ equivalent per million euros of revenue fell slightly to 58.7 tonnes of CO₂ equivalent. Since 2009, when the figure stood at 71 tonnes of CO₂ equivalent, carbon intensity has decreased 17.5%. These figures have fallen due to the many measures taken over the past few years to control and reduce emissions.

Group companies have introduced ambitious policies to achieve the target of reducing greenhouse gas 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 greenhouse gas emissions management system (the actions taken are detailed in paragraph 2.2.1.3). Taking further action to cut its emissions, Eurovia drew up a new environment and green growth strategy in 2016, which includes ambitious energy efficiency targets by business segment to meet the Group's emissions reduction target for 2020.

To broaden its range of low-CO₂ solutions, VINCI continues to develop specific tools and carry out studies to better quantify and control greenhouse gas emissions resulting from its business (ISO Scope 1, 2 and 3). At the end of 2016, VINCI began a study to create a methodology for measuring the Scope 3 emissions of its buildings business in all countries where it operates. The findings of this study will be released in 2017. 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.

Other levers for reducing greenhouse gas 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 are developed within the framework of the Chair in the Eco-design of Buildings and Infrastructure and 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® eco-commitment. VINCI Construction France and the facilities management activities of VINCI Energies continued to work together in 2016 to develop the Oxygen energy performance guarantee for the in-use phase of buildings.

The LISEA Carbon Foundation finances initiatives to reduce greenhouse gas emissions in regions crossed by the South Europe Atlantic Tours-Bordeaux high-speed rail line. Projects are divided into three categories: energy performance of buildings, eco-mobility and agriculture. In 2016, the energy renovation work undertaken on buildings supported by the Foundation will lead to annual savings of 3,400 MWh, or 733 tonnes of CO₂.

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

	VINCI Airports ^(*)	VINCI Autoroutes	VINCI Airports ^(*)	VINCI Autoroutes
(tonnes of CO ₂ equivalent)	ACA 2016	2016	ACA 2015	2015
ISO Scope 1 and 2 emissions	58,825	40,319 ^(**)	50,455	34,394
User/third-party emissions (Scope 3)	699,199	13,054,556	616,099	12,625,241

(*) ANA Group (Portugal) 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.

For 2016, as in 2014 and 2015, the greenhouse gas emissions produced by VINCI Autoroutes companies will be verified by our independent third party with a reasonable level of assurance, i.e. the highest level of transparency a company can achieve. Between 2015 and 2016, emissions by VINCI Autoroutes customers rose less quickly than the increase in traffic. The no-stop 30 km/hour electronic toll lanes lowered CO₂ emissions by 66,395 tonnes over the year ☑ (60,845 tonnes in 2015, figures recalculated using the emission factors updated in 2016), or 277,194 tonnes since they opened in 2010. The carpooling spaces provided (see paragraph 2.2.1.3) avoided more than 10,000 tonnes of CO₂ in 2016. At VINCI Airports, 24 airports obtained ACA (Airport Carbon Accreditation) certification, including seven ANA Group airports at Level 2 (Reduction). VINCI Airports operates 24 of the 180 ACA-certified airports in the world. As part of the certification process in 2016, the company had its Scope 3 emissions verified for 2015.

Investors have responded positively to the measurement of greenhouse gas emissions and actions taken to reduce them. In 2016, for the tenth year running, VINCI confirmed its leadership position in France regarding climate strategy. VINCI was again included in the Carbon Disclosure Project Leadership Index (CDLI) France in 2016, having obtained level B for its response to the Carbon Disclosure Project (98/100, level B in 2015, 100/100, level A- in 2014 and 93/100, level B in 2013). The Carbon Disclosure 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 to the issue. 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 have taken into account the scientific data predicting a 50 cm rise in sea levels by 2050. 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.

2.4 Biodiversity conservation

2.4.1 General biodiversity policy

The Biodiversity Task Force 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. These insightful exchanges are held under the banner of the VINCI "Working Together" programme.

VINCI's proactive commitment to promoting and protecting biodiversity was officially recognised in late 2012 by France's Ministry of Ecology, Sustainable Development and Energy under the national biodiversity strategy (SNB). This recognition guarantees the quality and consistency of the biodiversity programme. In 2016, these Group-wide initiatives implemented under the SNB were extended for a further four years to:

- pool and build knowledge on biodiversity;
- share best practices;
- train and raise the awareness of all VINCI employees about biodiversity;
- develop solutions to better integrate biodiversity issues in all aspects of Group activities;
- encourage partnerships with external stakeholders.

Four years after the biodiversity task force was formed, a number of initiatives have been launched in each area, with roll-out under way for most of them at VINCI subsidiaries. Four thematic working groups – focusing on stakeholder relations, offset strategy, environmental monitoring methods and biodiversity projects in international activities – were set up in 2016 to share tools and best practices.

2.4.2 Measures to promote biodiversity

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

Measures to avoid and reduce impacts on natural environments or, as last choice, to offset them are developed and applied in partnership with the most appropriate stakeholders, depending on the project, location, species and ecosystems.

To maintain a continuous hands-on approach, the Group gave special focus to deploying training and awareness modules on biodiversity issues in 2016. At VINCI Concessions, 21 people took the Biodiversity and Stakeholders training course in 2016. Eurovia has integrated specific modules on biodiversity into its training programmes for young quarry and technical engineers and its environmental regulations training designed 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 programme, VINCI Construction France continued rolling out its training modules on factoring biodiversity into projects, especially in urban settings. A technical manual on green roofs was also provided. VINCI Construction Grands Projets devoted a large portion of its new environmental training programme to biodiversity conservation.

Operators of linear infrastructure concessions are primarily concerned with the fragmentation of natural habitats, focusing their efforts on the transparency of infrastructure, the reversibility of barriers and the restoration of ecological connectivity. This includes creating environmental 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 has also created awareness areas along summer routes for its users, used signs to indicate and promote rest areas that do not use phytosanitary products, and published a guide on managing protected species throughout its motorway network.

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

	2016	2015	2014
Crossings for small and large wildlife (in number)	806	783	771
Fenced sections (in km)	8,543	8,497	8,466

The main biodiversity issue faced by Eurovia is restoring quarries currently in operation and following the operation 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 January 2016. They developed a methodology used to analyse natural environments and study 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. In 2016, 42% of Eurovia quarries were located within a 2 km radius of natural and protected areas (natural zones of ecological, wildlife and plant life interest, Natura 2000 areas, national parks, regional parks, natural marine parks, regional and national nature reserves, etc.). With Eurovia, the MNHN developed an ecological quality indicator (IQE) specifically for quarries to more easily measure the effectiveness of actions and methods used to manage biodiversity. The IQE was tested on 12 quarries from 2013 to 2015 and was extended to eight additional sites in France in 2016. Training on the IQE was also provided by the MNHN for local partners.

Eurovia's biodiversity indicators specific to quarries

	2016	2015	2014
Quarries that have set up a CLCS ^(*)	19%	52%	47%
Quarries that have formed partnerships with local naturalists	25%	30%	26%
Quarries that have joined the Unicem Environment Charter ^(**)	72%	79%	75%
Number of data on flora and fauna sent to the INPN by Eurovia quarries ^(***)	9,800	11,162	9,200

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

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

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

In 2016, VINCI Construction Terrassement used the "biodiversity" signs at 96% of its worksites. Its environmental engineering expertise and offer met with commercial and operational success, winning the company 25 calls for tender in 2016 (seven in 2015). Local partners and organisations came on board, leading to the implementation of adapted operating methods. VINCI Construction Terrassement has worked with training organisations and specialised design and engineering firms to develop environmental engineering training modules. Out of a total of 600 hours of training offered, VINCI Construction Terrassement provided 54 hours of training on environmental issues.

At the worksite for the South Europe Atlantic Tours-Bordeaux high-speed rail line, the concession company LISEA has defined guidelines and a 10-point methodology that is used to check each ecologically transparent structure. It began applying this methodology in 2014. Procedures were also developed to monitor structure function in partnership with environmental organisations and later approved with government partners.

The new environmental policy at VINCI Airports includes a key point on biodiversity conservation that involves conducting an ecological assessment of all the Group's airport sites so that action plans can be adapted to the local context. These assessments will begin in 2017.

2.4.3 Sponsorship, research and development to promote biodiversity

VINCI Autoroutes played an active role in the Infra Eco Network Europe (IENE) international research conference on integrating transport infrastructure into living landscapes, held in Lyon from 30 August to 2 September 2016. Its participation mainly involved organising site visits.

VINCI set up the LISEA Biodiversity Foundation at the end of 2012. With a budget of €5 million for the period 2012-2020, the foundation will help 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.

Since 2013, the LISEA Biodiversity Foundation has supported more than 100 projects to:

- mobilise more than 1,400 people (employees and volunteers) and hire 37 people to implement projects;
- promote projects in more than 300 publications (press articles, scientific journals, social media, radio programmes);
- organise 307 events (field trips for school students and the general public, open days, inaugurations, etc.) in which more than 8,800 people participated;
- train 700 people on conserving biodiversity in 100 training sessions organised as part of the projects supported.

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

Other sponsorship programmes to promote biodiversity include the Chair in the Eco-design of Buildings and Infrastructure, created from the partnership between VINCI and three ParisTech schools (Mines, École des Ponts, AgroParisTech). This partnership has produced two solutions for assessing biodiversity in the urban environment: Biodi(V)strict and NewDistrict.

Biodi(V)strict is a diagnostics and decision-making tool used to enhance the biodiversity potential of an urban or peri-urban development project. Designed by AgroParisTech and developed by VINCI Construction France, it combines criteria applied by developers with the scientific requirements of ecology experts. 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. The solution is used for projects under public-private partnerships, development or design/construction projects and can be applied at various stages (planning, design, bidding, etc.). Biodi(V)strict has been used on thirteen VINCI Construction France projects covering housing, offices, retail space, schools and university campuses since 2014.

NewDistrict is a multi-agent simulation tool used to monitor biodiversity changes in a given area. Each participant plays the role of a stakeholder in an urban development project (developer, government, farmer, etc.). A software program shows how biodiversity develops in the region based on the decisions made by each stakeholder. NewDistrict raises participants' awareness about the influence of project management on the project's environmental performance. This consultation learning tool has applied for an open-source licence, which is renewed every year.

Since 2014, VINCI has been one of the 166 organisations that make up the Strategic Guidance Council (COS) at the Foundation for Research on Biodiversity (FRB). VINCI is a member of the Construction Materials group within the FRB's Economic and Industrial Initiatives body.

2.5 Prevention and restoration

2.5.1 Legal and regulatory compliance

In regard to France's Grenelle 2 Environment Act, VINCI has a proactive approach to legal compliance. 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 through 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)	2016	2015	2014
Annual environmental investment	100	66	51
Annual spend on the upkeep of natural areas	23	26	40
Insurance premiums to cover environmental risks	0.37	0.33	0.30

Expenditure on the environment by VINCI Autoroutes (investment and maintenance) rose in 2016 compared with 2015 with the launch of the motorway stimulus plan.

2.5.3 Environment provisions and guarantees

See "Environmental and technological risks" in chapter C, "Risk factors", pages 130 and 131 of the Report of the Board of Directors.

2.5.4 Damages paid in 2016 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 2016 subsequent to a court decision on an environmental matter.

3. Social information

3.1 Regional, economic and workforce-related impacts of VINCI's activities

3.1.1 Contribution to regional economic development

Founded in 2000 by bringing together companies with long-established roots in their operating regions – nearly 70% of Group companies still have fewer than 100 employees – VINCI was present in more than 100 countries in 2016.

Size of Group companies by number of employees at 31 December 2016

	2016								
	VINCI Autoroutes	VINCI Airports	Other concessions	VINCI Energies	Eurovia	VINCI Construction	VINCI Immobilier and holding companies	Total	
From 1 to 99 employees	1	9	10	496	164	292	5	977	69%
From 100 to 499 employees	-	2	4	159	65	140	1	371	26%
More than 500 employees	3	4	-	16	21	29	1	74	5%
Total	4	15	14	671	250	461	7	1,422	100%

3.1.1.1 Impact of local companies

VINCI companies design, finance, build and operate bridges, tunnels, roads and other infrastructure with a long-term perspective. This role makes them leading players in regional development in both rural and urban areas. Whether engaged in construction or concession activities, Group companies generate significant benefits in the form of revenue, subcontracting, the development of ancillary activities, local tax contributions and support for local non-profit organisations. As they cannot be relocated, these activities give shape to the space where they are pursued, endowing it with greater coherence and fostering both economic and social development. Owing to their strong local roots, together with 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.

3.1.1.2 Impact of activities on economic development

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 contribute to development and boost the attractiveness of regions through the construction or upgrading of infrastructure and facilities. At a time when the requirements of customers – especially those of public sector or quasi-public sector customers, which generated €12.5 billion in revenue for VINCI in 2016 (almost 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 the areas of energy performance, design of urban eco-districts, promotion of the sustainable city (see pages 38 to 39) as well as mobility and end-user services.

For a number of years, VINCI companies have had access to a range of tools used to measure the social and economic impacts of their projects.

- LISEA, the concession company for the South Europe Atlantic high-speed rail line (SEA HSL) connecting Tours and Bordeaux has set up a monitoring unit to record socioeconomic data in partnership with the concession grantor, SNCF Réseau. 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, which is established for a period of 10 years after the line's entry into service, 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. For the period 2013–2020, six main areas of focus have been selected: the impact of the construction project itself, the overall availability of transport and mobility services, the impact of the new train stations, municipal and regional dynamics, tourism, and local and regional governance. The unit is the first of its kind in the rail sector.

- Studies have been carried out since 2014 to measure the direct, indirect and induced impacts of both planned and ongoing operations, using the Local Footprint® tool developed by Utopies©:

- a study to measure the local economic impact of the Jalicot quarry and quarries in Solignac sur Loire (Eurovia France);
- a study to measure the social and economic impact of Caraibus, the bus rapid transit system in Martinique;
- a study to measure the local economic potential of the Plaine Commune urban district;
- a study to measure the social and economic impact of the project to upgrade the Bambeto roundabout, in Conakry (Guinea);
- a study to measure the local economic impact of operations at the Stade de France;
- an assessment of the economic effects of the three airports in Cambodia;
- an assessment of the social and economic effects of the SEA HSL project.

- A similar study of the Allianz Riviera stadium in Nice was carried out internally using the cost-benefit analysis method to evaluate the socioeconomic return on investment from the stadium.

- In Greece, the University of Patras has been conducting two studies since 2006 looking at the social and economic impact of the Charilaos Trikoupi Bridge.

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.

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. Internationally, and particularly in emerging economies, Group companies work to promote the development of local skills for both production and managerial staff.

In Africa, Sogea-Satom has long pursued a commitment to the training of African managers. Africans accounted for nearly half of Sogea-Satom's managers in 2016 (40% of agency directors and 42% of junior and senior managers working on the continent). Similarly, the company uses local resources whenever possible for the work carried out on its sites. Sogea-Satom also supports several educational programmes at engineering schools: 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 France, the SEA HSL project is an apt illustration of this principle calling for the use of local resources and supporting local skills development. At a very early point in the project, well in advance of the start of works, the construction joint venture COSEA formed a partnership with stakeholders in the Poitou Charentes region: the French state, regional authorities, state-run job centres, chambers of commerce and trade associations. Signed in 2012, the project's Employment Charter formally sets out its pledges to promote local employment and sustainable employability, secure career paths and reinforce local know-how.

3.1.2.2 Local skills transfer

Practices in the Group's business sectors and the relatively short duration of projects encourage professional and geographical mobility. Accordingly, training efforts of VINCI companies address the needs and issues raised by these skills transfers. The mobility of VINCI employees thus benefits the entire industry and promotes regional development. Activities in this area by Group companies include the sharing of knowledge and expertise by VINCI Energies with Mohammed VI Polytechnic University in Morocco, VINCI Energies GSS in Africa and Sogea Morocco for the rehabilitation of ancient monuments.

In 2016, VINCI Construction Grands Projets continued the roll-out 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 people employed on the projects. In 2016, new Skill Up training centres were set up in three countries (Egypt, Dominican Republic and Djibouti). Over 400 project participants (employees, subcontractors and partners) received training under the programme, thus helping to further develop their employability upon completion of work at the sites.

Sogea-Satom opened its Africa Pro campus in Morocco in 2015, in order to expand training opportunities for its employees in Africa and reinforce the company's shared culture. In November and December 2016, the first training programme was held at this campus, for 40 newly hired and experienced managers. This training programme applies to all Sogea-Satom locations and includes coverage of CSR issues.

3.1.2.3 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 meet this obligation, VINCI created ViE in 2011, an entity specialising in social and professional integration, which now covers 75% of mainland France as well as Reunion Island. ViE has also launched a local employment drive to ensure the administration of social clauses and regional workforce management for the project to develop the New Coastal Highway on Reunion Island.

Activity of the ViE social enterprise, and change

	2016 ^(*)	2015	2014	2016/2015 change
Number of people benefiting from social integration measures	2,157	2,105	1,737	2.5%
Number of hours of integration employment	921,135	719,864	632,138	28%
Number of hours of training	16,716	13,800	25,000	21.1%

(*) Data collected reflects information at 30 November 2016.

To help those benefiting from social integration measures build their skills, ViE seeks to lengthen their periods of employment with the Group. In 2016, 16,716 hours of training were delivered, together with 6,471 hours corresponding to the Group's 15-minute safety sessions. Furthermore, 14% of people taken on under social integration clauses were offered an additional contract once their first project was completed (12% in 2015, 15% in 2014 and 2013, 12% in 2012). Over the year, 576 of the 2,157 people benefiting from these measures (about 27%) were subsequently hired by the Group or one of its subcontractors.

3.1.2.4 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 involving a wide variety of initiatives: sponsoring of graduating classes, 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. Company presentations, site visits and internship opportunities are among the Group's actions in support of these future graduates. Partnerships have also been forged with French engineering schools outside the Paris region (ICAM Lille, INSA Toulouse, Polytech Clermont). The regional Pivot Clubs, which bring together human resources managers from across the Group, provide essential support in furthering the success of these initiatives.

Several of the Group's subsidiaries are developing their own networks of relations with educational institutions. VINCI Construction, for example, maintains close ties with the academic community. Its initiatives in support of French engineering schools include a partnership with École Centrale Paris for its subject area in sustainable planning, design and construction. VINCI Construction also assists with Management of construction firms (Amec), a post-graduate programme offered by Paris engineering school ESTP. Internationally, the company continues to forge partnerships with institutions in many countries. In Europe, agreements were signed with Imperial College in London and the Swiss Federal Institute of Technology in Lausanne; in Asia, agreements were signed for 2014–2016 with Ho Chi Minh City Polytechnic University and for 2016 with University of Hong Kong, Hong Kong University of Science and Technology, University of

Malaya-Centre of Innovation and Commercialisation, National University of Singapore and Nanyang Technological University in China; and in Latin America, agreements were signed with Pontifical Catholic University of Chile, University of Chile, the Colombian School of Engineering Julio Garavito, the Antioquia School of Engineering and the National Autonomous University of Mexico.

VINCI Energies launched a three-year partnership with the engineering school Grenoble INP-Ense³ in 2015. This sponsorship programme has already given students the opportunity to work closely with key personnel at VINCI Energies on innovative solutions to address industrial challenges, during a special week-long event at the end of September in the first year of the partnership. More recent initiatives under this partnership include the launch, on 29 November 2016, of the student Innovation Challenge, which is now part of the school's curriculum. Different types of challenge are submitted to the students by project leaders, including eight by VINCI Energies. Over a period of six months (120 course hours), students work together in groups to develop innovative industrial, engineering or scientific solutions. Project leaders remain available at every stage to assist students with their work, thus engaging them in fertile dialogue with industry professionals on the subject of innovation.

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.

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 a means to create value. 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. VINCI is a signatory of the Principles for Constructive Dialogue with Stakeholders, which were drafted in 2014 under the aegis of Comité 21, a French network bringing together businesses, local government authorities, NGOs, institutions, trade unions and researchers focused on sustainability issues. In line with this commitment, Reflex was used during the Regina Bypass project in the province of Saskatchewan (Canada) to prepare an initial and comprehensive mapping of the project's stakeholders. Specific initiatives in support of local populations have given rise to improvements in addressing the concerns of First Nations, also paving the way for the development of a stakeholder-inclusive action plan prior to the start of works. For example, regular meetings with community leaders have resulted in commitments to local employment. Thus, from May to November 2016, nearly 20% of workers were self-identified members of First Nations communities.

The consultation approach applied by the SEA HSL project is widely seen as exemplary for its commitment to engaging with all stakeholders. Given the significant environmental concerns raised – 223 protected species affected, more than 85 watercourses and 14 Natura 2000 sites in the path of the rail project – conservation organisations, nature conservatories and chambers of agriculture were all given a say in the measures to be taken to eliminate or reduce the project's impact on the environment. A joint memorandum of understanding entered into by all the parties allowed the most appropriate offsetting measures to be identified for each major type of ecosystem and has resulted in a mapping of areas to be explored in depth.

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 end users, 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 facilities management activities of 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 Initiatives and relations with associations representing users and local residents

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.

Some subsidiaries, like VINCI Autoroutes, have built up recognised expertise in maintaining constructive and sustainable relationships with local residents and other stakeholders. Among its actions along these lines in 2016, the company organised a participative and co-construction process for the widening of France's A10 motorway between Poitiers and Veigné, bringing all affected parties into the discussions from the start of the design phase, thus more than meeting regulatory requirements in this area. At the outset, to lay the groundwork for this essential dialogue between VINCI Autoroutes and the public, the company enlisted the services of Alter&Go Concertation to carry out a consultation exercise between February and April 2016. This firm conducted a perception survey among representatives of 27 municipalities crossed by the project as well as other regional stakeholders, which provided insights into how people feel about the project, also helping to assess their needs in terms of information and the organisation of dialogue. The second phase, involving a broad-based public consultation process, ran from 26 September to 22 October 2016. During this process, opinions and suggestions were gathered via a participatory web platform (www.A10-poitiersveigne.fr), postage-paid response forms, emails and consultation workshops, as well as permanent and temporary exhibitions. Through all of these exchanges, details of the project, its human consequences and environmental challenges, as well as the specific issues subject to consultation were able to be communicated. A progress report on the consultation, with a summary of the suggestions made, is currently in preparation and will be made available to the public. The suggestions will be considered and may well be integrated within the project.

For VINCI Airports in France, the preferred means to pursue consultation with communities living in proximity to airports is the environmental consultation committee (CCE), established by Law no. 85-696 of 11 July 1985. A CCE is created by the prefectural authority in the French administrative department where each airport is located, bringing together aviation professionals, local authorities and civil society representatives such as local resident associations and environmental organisations. The CCE must be consulted for any major questions

relating to the impact of airport operations – in particular aircraft noise – on inhabited areas nearby. The management of claims and complaints made by local residents is a key area of responsibility, to drive continuous improvement in the company's environmental performance and reinforce the social acceptability of airport activities. A specific and formal procedure has been set up at each airport for the management and handling of claims. Several airports, including Nantes, Lisbon and Porto, are equipped with noise monitoring systems used to correlate flight paths with noise data in order to meet concerns of local residents affected by the issue.

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 (VINCI Airports), nearby residents are also consulted, as was the case during the development of action plans for noise reduction at the Lisbon and Porto airports.

In addition, the number of claims is consolidated every year at the level of VINCI Airports. For the Group's 23 airports around the world, 88 claims were received and processed in 2016, stable compared with 2015.

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

For a number of years, VINCI Airports has been rolling out its "Smiling" operations to make airport users feel particularly welcome. This innovative customer service initiative aims to enhance the attractiveness of airports by organising opportunities for relaxation and social interactions to be enjoyed both within its teams and between employees and the passengers they serve. Initially rolled out at Nantes Atlantique Airport in March 2008, the approach has since been introduced at several other facilities managed by VINCI Airports, in particular by organising annual "Smiling Days". In 2016, this operation took place on 8 and 9 April, with the participation of 972 airport and head office employees, who offered an especially warm welcome to some 132,000 passengers departing or arriving on nearly 1,000 flights. A photo competition was held in airports with a Facebook page to capture the operation's vibrant moments, attracting more than 1,000 participants.

VINCI Autoroutes aims to cultivate constructive relationships with its customers, remaining attentive to their usage patterns and needs. The company has introduced two new pricing plans (Temps Libre Premium and Fréquence Premium) for its electronic toll collection subscribers that include a "comfort" service package accessible via a special platform: insurance for mechanical breakdowns and flat tyres (provided across the entire motorway network under concession), a loyalty programme with over 150,000 special offers and privileges as well as a VIP after-sales service, with a dedicated team offering 24/7 service. VINCI Autoroutes is also rolling out a comprehensive digital plan to allow users of its network to make the most of connected services on its motorways: a new version of the VINCI Autoroutes application for smartphones; an improved mobile version of its website; Cliquez-Déjeunez, a web-based service used to order meals in advance online and pick them up at a fast-track counter on arrival at the selected service area; carpooling facilitated throughout the motorway network; traffic information updated in real time thanks to a partnership with Waze, a navigation application making use of crowdsourced data and creating communities of drivers to provide information that is shared on social networks and Radio VINCI Autoroutes.

In November 2016, the VINCI Autoroutes concession company Escota set up a Twitter feed (@A8_VINCI) to deliver real-time traffic updates for France's A8 motorway. This new service, provided free of charge, meets an essential expectation of users: obtaining local information on traffic conditions, travel times or even weather alerts before setting out on a journey. This Twitter feed is maintained directly by Escota's traffic information centre teams. It rounds out the range of communications channels and tools made available to users by VINCI Autoroutes: variable message signs, websites, mobile apps, Radio VINCI Autoroutes, and a customer service number. Following the success of this initial feed, VINCI Autoroutes is extending this approach by offering traffic updates for the Saint Arnoult-Poitiers section of the A10 motorway, also via Twitter (@A10_VINCI).

VINCI Autoroutes is also actively working in support of new approaches to transport, including more-sustainable mobility solutions. The company has built 26 parking facilities with more than 2,200 spaces reserved for carpooling. In 2016, these parking facilities operated at 73% capacity. Similarly, in order to address the mobility issues raised by road congestion in the Côte d'Azur employment area, Escota is promoting the use of carpooling for short journeys. To promote the practice in urban and suburban areas, Escota signed an inter-company partnership agreement with seven business clubs, Thales and the Nice-Côte d'Azur Chamber of Commerce and Industry. The agreement was put into practical application through a partnership with Wever. This startup's flagship product is a mobile app that puts users in touch with each other so as to encourage them not to make short journeys alone, especially when travelling between home and work.

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

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. Several Group entities have thus been building partnerships with the Bird Protection League (LPO) for a number of years. VINCI Autoroutes promotes collaborative and sustainable management of biodiversity, in association with the LPO and through other initiatives, in order to protect ecosystems near its motorway network. This fruitful partnership has resulted in a report summarising the progress made and experiences to date, entitled "Lessons learned and insights from biodiversity conservation efforts and the monitoring of animal species". This report, prepared jointly by the LPO, Cerema (a French public resource centre for scientific and technical expertise relating to risks, mobility, land planning and the environment) and VINCI Autoroutes, was published in June 2016. It presents the different types of follow-up for the upgrades carried out with a view to restoring ecological continuity and preserving ecological transparency on VINCI Autoroutes motorways. In all, 81 upgrades were the focus of follow-ups conducted by 17 different local bodies, for a cumulative total of 1,280 months of monitoring. This publication is destined to serve as a reference guide for taking into account biodiversity on linear infrastructure. In addition, the Group lends its support to various sustainability actions or events contributing to the development of green solutions. For example, VINCI has signed on as a partner to 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. In pursuit of this objective, the project pools expertise and analyses and makes methodologies and production-ready technical solutions available that may be used to maintain ecosystem functions and services in the context of urban planning.

In 2016, VINCI also was a supporting partner for the ninth edition of the Convergences World Forum, which was held in Paris from 5 to 7 September. Bringing together more than 7,000 participants each year, this event provides a space for experts and practising professionals, all deeply committed to sustainable development, from the public and private sectors, solidarity organisations, academic institutions and the media to meet, exchange ideas and learn from each other. Contributions to public debate focused on tomorrow's sustainable cities and regions, on the challenges posed by meeting the UN's Sustainable Development Goals, and on the new responsible and integrated economic models. Known for bringing forward bold ideas and creative strategies, VINCI facilitated, co-organised and contributed to discussions relating to the sustainable management of cities and regions, urban agriculture, the circular economy, as well as the changing face of urban and regional planning under the new democratic and inclusive governance models.

3.2.3.1 Partnerships and sponsorships that protect the environment while contributing to scientific understanding

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 in scientific understanding by endowing the Eco-design of Buildings and Infrastructure Chair at the three ParisTech engineering schools. 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). The endowment for this chair, in the amount of €4 million over five years, was officially renewed in 2014. 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. For 2016, the budget allocated for this Chair was just under €800,000. 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.

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 imagining the future shape of our cities. It received funding from VINCI in the amount of €1.2 million in 2016. Recent studies have focused on the optimisation of cities using data, the impact on cities of digital technologies and their uses, and the integration of urban logistics in the planning and construction of urban spaces. The think tank's international seminar held in Boston in June 2016 explored emerging trends in urban sustainability, including urban innovation as a way to address challenges from climate change to social and economic inequities, the need to refurbish, upgrade and build new public transport systems, and pilot projects applying more resilient architectural and urban design principles.

Also in 2016, VINCI's contributions to the search for socially responsible and innovative technical solutions continued, exemplified by the signing of a new research partnership with Solidarités International. The main focus of this partnership is the launch of a student competition organised by the open innovation specialists at Schoolab, in association with three leading educational institutions: Centrale Paris, Essec and the Strate school of design. Student participants working in teams are given six months to think up technical solutions and create prototypes to address issues experienced by humanitarian organisations during emergency relief operations. At present, the students are working on two specific challenges: thermal insulation of emergency shelters (in Lebanon) and modular emergency shelters in urban areas (in Haiti).

The VINCI Autoroutes Foundation for Responsible Driving (www.fondation.vinci-autoroutes.com) was allocated a budget of €2 million in 2016. Dedicated to raising awareness about the dangers of poor road safety, the Foundation serves as a think tank and research laboratory, disseminating information on safe driving practices to motorists and the general public in collaboration with partners and various stakeholders, including institutions, professional bodies and non-profit organisations. As part of its research programme, the Foundation is funding several scientific studies currently being pursued by researchers from the Hôtel-Dieu hospital in Paris, the University of Strasbourg's Centre for Neurocognitive and Neurophysiological Investigation (CI2N), the National Association to Further Knowledge of Sleep and its Disorders (Prosom), and the Armed Forces Biomedical Research Institute (IRBA). In 2016, the sixth edition of the Foundation's annual barometer survey on responsible driving offered a comparison of driving behaviours in the new French regions resulting from the territorial reform enacted in 2014. The survey findings reveal that French people are aware of the risks involved and of the rise seen in fatal accidents on the country's roads over the last two years. However, this awareness is coupled with a resigned attitude towards the situation and respondents were sceptical about the possibility of significantly reducing driving fatalities. The survey also shows that although, generally speaking, risky behaviour while behind the wheel is not decreasing, French people better appreciate the risks associated with sleepiness. Based on all of these results relating to driving habits and recent trends, the Foundation stepped up its awareness campaigns aimed at road users and the general public in 2016.

Many VINCI companies support environmental and biodiversity initiatives. In 2016 the Portuguese airports concession company ANA (VINCI Airports) again made donations in the amount of €40,000 to the non-profit organisation Aldeia and to Rias, the wildlife rehabilitation and investigation centre managed by the organisation. Rias rescues sick, injured or orphaned wildlife for treatment in order to be released back into their natural habitat. This partnership has been active since 2009. In 2012, Eurovia entered into a three-year partnership with France's Natural History Museum (MNHN) in Paris, to which the MNHN brought its scientific expertise, assisting Eurovia in its ongoing efforts to further embed biodiversity management within its long-term business strategy. This partnership established a solid, scientific foundation for Eurovia's approach, a move commended by stakeholders that supplemented the local partnerships still being developed by the company with environmental organisations. As one example of the contributions made, the museum's teams designed a methodology to assess the ecological potential of several Eurovia sites, calculating their environmental quality indicator (IQE). Subsequently, a number of local partners, namely organisations accredited as permanent environmental initiative centres (CPIEs), received authorisation to implement the MNHN methodology after receiving training in its use. The agreement between Eurovia and the MNHN was renewed in January 2016 for a further period of three years.

Apart from its contractual commitments for the SEA HSL project, concession company LISEA has continued its efforts in this area through the LISEA Biodiversity Foundation and the LISEA Carbon Foundation. These two corporate foundations finance projects located in any of the six French administrative departments crossed by the rail line: Indre et Loire, Vienne, Deux Sèvres, Charente, Charente Maritime and Gironde.

The LISEA Biodiversity Foundation seeks to provide long-term support to local projects that restore natural habitats, build knowledge of conservation actions and raise public awareness on these issues. These initiatives are in addition to the commitments already undertaken by the design-build joint venture COSEA, the concession company LISEA and the concession grantor SNCF Réseau. Of the more than 350 proposals submitted since 2013 in response to three calls for projects, 104 have been selected to receive funding, representing a total amount of €3.8 million. Support provided by the LISEA Biodiversity Foundation goes beyond the mere financing of projects. It involves assistance over the long term, from technical cooperation to the dissemination and best use of the results, and covering all implementation phases, taking the shape of a genuine skills-based sponsorship arrangement.

Key figures for the LISEA Biodiversity Foundation

	Number of projects submitted	Number of projects supported	Total amount paid	% of projects submitted by non-profit organisations
First call for projects (November 2012–May 2013)	113	30	€1.5 million	66%
Second call for projects (September 2013–November 2014)	138	47	€1.6 million	57%
Third call for projects (February–December 2015)	70	27	€0.7 million	67%

The LISEA Carbon Foundation, endowed with a budget of €5 million for the period 2012–2020, aims to support projects helping to reduce greenhouse gas emissions. Three priority areas were identified in order to issue calls for projects: reducing energy consumption by buildings, developing more responsible mobility solutions, and supporting the energy transition in rural communities.

In line with these key objectives, the LISEA Startup Contest was launched in September 2016, in partnership with Bordeaux Métropole, the intercommunal structure bringing together the city of Bordeaux and some of its suburbs, 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 commuters using the Bordeaux Saint-Jean train station. Proposals were received from 150 startups in response to the call for projects. Following the review of these proposals and interviews with short-listed candidates, the winner will be selected in February 2017. At the same time, the call for projects entitled “Rail transport: solving the last mile problem”, launched on 1 April 2015 in partnership with the foundations established by public universities in Poitiers and Bordeaux, was renewed in April 2016. The aim is to support innovative projects put forward by students, faculty members or startups who are working on creative ways to facilitate and better manage transport between train stations and final destinations (homes, workplaces, shopping districts, universities, etc.). Of the 10 proposals selected, eight were from Bordeaux and two were from Poitiers.

Key figures for the LISEA Carbon Foundation from 2014 to 2016

	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	7	7	€0.427 million
Eco-mobility	22	19	€0.323 million

3.2.3.2 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. At local level, many VINCI companies volunteer their assistance and technical expertise in connection with a large number of projects aimed at restoring historic buildings of high architectural quality and heritage value. Some of these projects relate to important landmarks, such as the large-scale skills-based sponsorship operation between 2004 and 2007 for the restoration of the Hall of Mirrors at the Château de Versailles. More recently, the Group's commitment to Versailles has involved the restoration of the Dufour pavilion, one of the wings of the palace. VINCI Construction and VINCI Energies won the contract for this project in 2013. This wing, which now serves as the visitor centre, opened its doors on 23 February 2016. Its interior architecture, designed by Dominique Perrault, was financed by the Group through a sponsorship agreement. Thanks to this policy of cultural sponsorship, all of the Group's employees and shareholders enjoy priority access to the Château de Versailles until 31 March 2017.

Through its sponsorship initiatives, VINCI also helps promote exchanges, debate and discussion across society as well as intercultural dialogue. The Group is among the sponsors of the France-Colombia Year in 2017. This ambitious programme of events, aimed at strengthening the developing relationship between the two countries, was officially launched in Bogotá in December 2016. Some 400 events have been scheduled in cities throughout France and Colombia on various topics and in a range of fields, including culture, the economy, gastronomy, scientific research, higher education, sport and new technologies.

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, 11 structures have been created since 2002. At the end of 2016, the employee participation rate for the Group's measures to promote civic engagement in Europe was 70%. It reached 76% worldwide when taking into account the activities of Initiatives Sogea-Satom pour l'Afrique (Issa).

For 2016, the foundations received a total of over €3.6 million, which used the funds to support 275 projects to promote the social, professional and economic integration of the most disadvantaged people, with 367 employee volunteers across the Group acting as sponsors.

In 2016, the Fondation VINCI pour la Cité introduced new ways for employees to demonstrate their civic engagement, through its *Parcours Citoyen* (citizen leadership) programme involving occasional coaching sessions, academic support, shared internships, etc. The *Cité Solidaire* (solidarity in the community) programme, which targets very small non-profits in disadvantaged urban areas, further expanded its efforts, with the creation of new structures in Montpellier and Aubervilliers in France, and Magdeburg in Germany. Since its inception, this exemplary programme has been rolled out to 25 sites in France and Germany.

Also in 2016, the Fondation VINCI pour la Cité, together with VINCI's network of foundations and endowment funds active in countries other than France, introduced a new meeting format. Known as the VINCI Foundation *Rendezvous*, these meetings aim to put the spotlight on initiatives to promote social and professional integration identified by the organisations in the network. Spreading the word about innovative solutions, they facilitate exchanges, debate and discussion between various players in the private and public sectors as well as the social and solidarity economy. Two meetings were held in 2016, the first exploring issues around access to housing and the second looking at organic agriculture in the urban environment as a way to achieve social and professional integration.

Actions of Group foundations in 2016 to combat exclusion and foster integration

	Participation rate ^(*)	Number of projects supported	Number of sponsors	Amount distributed to foundations (in €)
France	52%	184	252	2,590,875
of which <i>Parcours Citoyen</i> programme	-	5	23	110,500
of which <i>Cité Solidaire</i> programme	-	12	12	93,150
of which <i>Sillon Solidaire</i> programme	-	25	30	325,500
Germany	7%	17	31	200,000
Belgium	1%	13	17	212,500
Spain	1%	4	4	55,000
Greece	0%	5	6	30,000
Netherlands	1%	2	3	103,125
Czech Republic	2%	14	15	35,863
United Kingdom and Ireland	5%	28	31	336,751
of which <i>Isle of Wight Foundation</i>	-	9	9	93,696
Slovakia	1%	8	8	67,500
Total	70%	275	367	3,631,614

(*) Participation rate: number of employees per country/total number of Group employees (183,487).

The Group also supports a range of other educational outreach and corporate citizenship initiatives to help maintain its strong local roots and promote civic engagement. For example, the Group has become the main partner of the Paris Football Club (PFC), entering into a five-year commitment in 2015 to support the athletic goals of the PFC while contributing to the development of an ambitious educational and social project. In particular, VINCI supports the PFC Academy and the club's training centre. Group employees also mentor young athletes and assist those having left the world of high-level competitive sports in planning their careers. This athletic sponsorship reinforces the Group's ties to this sector and reaffirms its commitment to the shared values of team sports and civic engagement. The Group also actively pursues this type of civic engagement outside France. For example, in 2016, the VINCI Energies subsidiary Actemium Congo took charge of the refurbishment of the Shekina orphanage in the Republic of the Congo, as part of a local training programme for the site's future maintenance technicians. This training programme included a corporate citizenship module, through which 45 Congolese interns worked as a team on a project in support of the local community. The structural rehabilitation of the orphanage necessitated purchases of materials, masonry work, meal preparation throughout the renovation, complete electrical rewiring, and the distribution of donations of food and mosquito nets.

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.

In Africa, Issa supports social entrepreneurship projects and projects promoting access to essential services by way of financial assistance together with the sharing of skills and expertise. In 2016, this programme, which sponsors solidarity activities initiated and managed by Sogea-Satom's agencies and worksite teams, supported 15 economic initiatives and eight social initiatives for total funding of €411,600. In all, 170 Sogea-Satom employees served as sponsors of projects supported by Issa in 2016.

Activities of Issa (Initiatives Sogea-Satom pour l'Afrique) in 2016, with change

	Number of projects supported			Number of countries involved	Total amount paid (in € thousands)
	Access to essential services	Social entrepreneurship	Total		
2016	8	15	23	8	411.6
2015	8	19	27	9	414.0
2014	9	19	28	9	441.0

Among other examples, Issa's financial assistance in November 2016 made possible the construction of a hangar and the acquisition of equipment for the production and sale of agricultural products in Tori-Avamé (Benin), the purchase of supplies and equipment to promote ecological agro-pastoral production techniques in Guekoumede (Benin), and the construction of a workshop for the production of fabric, textile items, home furnishings and accessories in Ouagadougou (Burkina Faso). Issa also financed the rehabilitation of a building and purchases of materials to assist in the development of the beekeeping sector and increase honey production capacities in Musinga (Burundi). In Mali, financial assistance under the programme helped boost production capacities for a cooperative active in the processing, marketing and distribution of local agricultural products. Lastly, to fight against malnutrition and promote local employment, Issa financed a project to make possible infrastructure construction and purchases of equipment for the production and sale of spirulina in Niger.

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, 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, sometimes complemented by more in-depth presentations and exchanges. In 2016, Sogea-Satom's local agencies, in association with VINCI's Security Department and government authorities, persevered with their initiatives and methods to contain the spread of the Ebola virus in Africa.

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 2016 revenue of €8 million, has lifted some 2,000 families out of poverty and promotes economic vitality in the local area.

On the whole, in the area of sponsorship, VINCI companies focus their initiatives on three main fronts: social integration through work/solidarity (see page 30), the environment and research (see pages 38 to 39), and culture and heritage assets (see page 31). In accordance with the Group's decentralised administrative model, VINCI intentionally chooses not to consolidate either its reporting on sponsorship actions or the total budget allocated. A low-range estimate suggests a total amount of about €12 million in 2016.

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 2016, they were comprised, in particular, of €8.1 billion for materials, €5 billion for external services and €7.9 billion for subcontracting.

Percentage of revenue allocated to purchases

(in € billions)	2016	2015	2016/2015 change
Total amount of purchases	21.9	22.8	(3.9%)
Percentage of revenue allocated to purchases	58%	59%	(1.7%)
Of which purchases consumed	8.1	8.5	(4.7%)
Of which purchases of external services	5.0	4.7	6.4%
Of which subcontracting (including concession companies' construction costs)	7.9	8.6	(8.1%)

3.3.1 General policy to promote dialogue with suppliers and subcontractors

In 2016, 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 share the common goal of including sustainable development criteria in each contract they negotiate.

Tasked with rolling out the Group's international purchasing policy, the VINCI International Purchasing Committee comprised purchasing representatives from four countries at 31 December 2016 (Germany and the United Kingdom, the two countries after France where the Group has the most extensive operations, together with the Czech Republic and Belgium) as well as 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 main business lines. In 2016, after having communicated the priorities of VINCI's responsible purchasing policy and trained buyers in responsible purchasing procedures, this committee formed a working group with the aim of creating an implementation assistance tool to be used by the Group's operational staff.

3.3.2 Managing relations with suppliers

In 2016, the Group further reinforced its responsible purchasing policy. 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 2015 for the selection and approval of temporary staffing agencies in France. 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 2011. Owing to their very poor performance in these areas, 40 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 2016, 90 temporary staffing agencies 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.

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

	Total at 31/12/2016
Contracts including the Group's supplier performance charter or the Global Compact's 10 principles	96%
Contracts including one or more clauses on workforce-related, environmental or social themes	79%
Contracts having involved the completion of a responsible purchasing questionnaire during the tender process	67%
Contracts integrating a progress plan for responsible purchasing	66%
Number of on-site responsible purchasing audits conducted over the last six years	546

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 companies and non-profit organisations that specifically employ people with disabilities. In 2016, the volume of purchases from these entities was €5.9 million.

In France, VINCI has entered into a national framework agreement with Association des Paralysés de France for the collection and recycling of waste electrical and electronic equipment (WEEE) and with Ateliers Sans Frontières for the collection and refurbishment of discarded computer equipment for resale at preferential prices to other non-profit organisations. In 2016, nearly 30 tonnes of equipment were recycled. Revenue generated with sheltered workshops remained stable for the collection of WEEE.

In the area of social integration, to promote quality improvements among temporary employment agencies operating in this field, VINCI evaluated a number of firms of this type. The objective of this process was to select structures that demonstrate their effective ability to assist disadvantaged people and facilitate the development of the structures approved by the Group. In 2016, as part of the contract renewal process, a new invitation to tender accompanied by a responsible purchasing questionnaire was issued to 131 temporary employment agencies specialised in helping hard-to-employ individuals secure work. A total of 76 agencies were selected to sign a new contract for a three-year period.

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 makes every effort to ensure that all 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 Code of Practice sets out the implications of this commitment. In addition to cooperation with local companies, VINCI aims to ensure safety conditions of subcontractors' employees comparable to those of the Group's personnel, respectful business relationships, fair bidding processes, transparency in business dealings and compliance with VINCI's core values. To assess the degree to which these principles are embedded in the Group's practices, during the preparation of the Code of Practice 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 the outsourcing of the recruitment process can be considered as involving 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 eliminate any risk of forced labour. Monitoring and control at each step in the process ensures that applicants do not bear any of the costs for the recruitment procedure.

3.4 Fair business practices

3.4.1 Prevention of corruption

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 sets out the rules of conduct that apply to all Group companies and employees. The Code includes a section on the prevention of corruption. In 2016, the Group continued its efforts to disseminate and explain this code 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, thus a total of 6,877 individuals for 2016 (up 5.8% compared with 2015).

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 2016. 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.

All VINCI companies have appointed correspondents, managers or officers specifically responsible for monitoring ethics and compliance. 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, Eurovia has provided training on anti-competitive practices to certain staff members (agency directors, regional directors, legal department staff, members of Executive Management and the managers of some support functions) since 2003. In 2013, Eurovia updated the course content for this training, which was given to the same categories of staff. These sessions were led by Eurovia's general counsel and a legal expert in the application of competition rules. Since 2013, 372 of Eurovia's operational staff have received this training in its new format. Other training courses have been organised locally in recent years, on a country-by-country basis, focused mainly on collusion and corruption. All of these training initiatives are discussed in annual ethics reports prepared in each country and consolidated at the level of the Eurovia holding company.

To strengthen this approach from top to bottom and give it both a global dimension and a long-term orientation, Eurovia enshrined its commitments in the areas of ethics and compliance in its 2015–2020 Strategic Plan.

Sogea-Satom has introduced an ethical risk awareness training programme for management committee members, agency directors and chief financial officers, a total of more than 50 people in all. This half-day training session was delivered in 2015 by a lawyer specialising in business criminal law.

Entrepose has issued a 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. The prevention of external fraud is discussed in the "Risk factors" chapter (paragraphs 1.2.1 and 1.2.2, page 127) and in the Report of the Chairman

of the Board of Directors (paragraph B.3, page 214). In 2015, VINCI Autoroutes continued the roll-out of the expedited fine recovery procedure that allows motorway companies to query the French national vehicle registration database in the event of payment avoidance at toll plazas and thereby issue tickets to motorists. This system has halved the number of toll violations. In 2016, VINCI Autoroutes' fraud teams reinforced their efforts in the fight against toll evasion, which mainly involves the falsification of tickets and payment methods. During the year, more than 300 individuals were questioned or issued summons by law enforcement personnel for alleged acts of fraud, on the basis of nearly 500 complaints filed by our teams.

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.

VINCI Immobilier has introduced the OpenWork approach to improve wellness for end users. OpenWork focuses on comfort and health through the use of plants, ergonomics and building design. VINCI Immobilier's aim is to create user-centric buildings with high-quality work areas that are modular and can evolve over time, and which fully match users' needs. Among the several projects that have used this approach, the In Situ office building in Boulogne Billancourt, near Paris, is a good illustration of its new building design principles.

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 (over 130 million in 2016). Campaigns are organised to raise awareness and specific training is provided for the employees most exposed. On the motorway networks operated by VINCI Autoroutes, the widening of the most travelled sections to three or four lanes each way as well as the enlargement of parking areas has reduced the risk of accidents. In this same vein, VINCI responded, along with 21 other French companies, to the national call to action issued in October 2016 to promote road safety at work. The aim of the signing event, which took place in the presence of the Minister for Labour, Employment, Vocational Training and Labour-Management Dialogue as well as the Interior Minister, was to raise awareness among business leaders of the risks associated with the work-related driving activities of their employees. This call to action consists of seven specific commitments aimed at curtailing risky driving behaviours among employees.

Accident figures

	2016	2015
VINCI Autoroutes motorway networks (in km)	4,391	4,379
Traffic (in billions of km travelled)	50	223
Number of accidents per billion km travelled	230	223
Number of fatal accidents per billion km travelled	1.5	1.5
Number of deaths per billion km travelled	1.7	1.7

Set up in 2011, the VINCI Autoroutes Foundation for Responsible Driving is dedicated to raising awareness about the dangers of poor road safety and carries out various actions to reduce road risk, focusing in particular on inattentiveness and drink driving. Developed in partnership with the non-profit organisation Ferdinand, Roulons-Autrement (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 four years after its launch. The site now offers a multimedia library of nearly 1,000 videos from 30 countries and continues to expand its presence on social networks.

During France's national disability employment week, held from 14 to 20 November 2016, about a dozen students, interpreters and monitors from the specialised driving school founded by Aris, a regional non-profit organisation for the integration of deaf people, were welcomed by the VINCI Autoroutes Foundation and the teams of the A86 Duplex Tunnel. This visit was part of a partnership between Aris and the VINCI Autoroutes Foundation, under which the Foundation provides financial assistance for the translation of the DVDs of official highway code courses into French sign language. The visitors had the opportunity to explore issues relating to driver safety, discuss with VINCI Autoroutes' teams the specific problems experienced by people who are deaf and hard of hearing when driving through tunnels and on the motorway, and exchange ideas on the best means of communication to be used between these people and agents when faced with an unexpected event. These discussions helped identify ways to improve the level of safety and types of assistance offered to the deaf and hard of hearing in tunnels. Also in 2016, the VINCI Autoroutes Foundation reprised its programme of actions for preventing drowsiness and inattentiveness at the wheel by offering nap rooms and free coffee at rest and service areas on its motorways during holiday rush periods. A new version of the mobile application Roulez Éveillé, developed in partnership with the University of Strasbourg's Centre for Neurocognitive and Neurophysiological Investigation (CI2N), which allows drivers to test their level of alertness before they leave home or during stops, was released in 2016. It includes a tutorial to encourage drivers to take naps in their vehicles that is made more memorable by injecting a bit of humour into the instructions. Always with a view to further raising awareness about road safety, the Foundation held a colloquium on 7 November 2016 at the Maison de l'Unesco in Paris focusing on responsible parenting behind the wheel, in association with FNEPE, the French national federation of schools, parents and educators. Taking as its theme "Families on the road, a testing ground for driver education?", the colloquium offered multidisciplinary perspectives by inviting philosophers, sociologists, legal experts, psychologists and psychiatrists, along with Patrick Chesnais as guest advocate. On this occasion, the Foundation also presented the results of a study looking at the impact of parents' driving behaviour on that of young drivers, entitled "Tell me how your parents drive, I'll tell you what kind of driver you are". This unprecedented study, conducted by the market research firm Ipsos, reveals a very clear correlation between the habits of parents and those of their children once they start driving. It shows that risk-taking behaviours, or conversely driving that is respectful of others and in compliance with the highway code, are reproduced in tell-tale fashion from one generation to the next.

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 conducted an analysis of the human rights risks associated with its business activities. The key issues identified relate to 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.

To review these issues, an ad hoc steering committee has met on a monthly basis since the end of 2015. Comprised of human resources directors of the Group's business lines and divisions, this committee has issued a reference guide, the VINCI Guiding Document on Human Rights, which provides a detailed overview of all the issues and the implications of each 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.

A set of tools is currently in development to facilitate the dissemination of these guidelines to all staff likely to be affected by these issues in the course of their projects. This will include standard contractual clauses relating to human rights and a tool for identifying human rights risks.

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.

In addition, VINCI maintains an ongoing dialogue with some 20 civil society representatives, which involves frequent exchanges.

3.5.2 Prevention of human rights risk 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. To fight debt bondage, QDVC has put in place robust control processes for the monitoring of recruitment agencies in the countries of origin for most workers (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. Furthermore, 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 addition, VINCI and QDVC have been engaged in constructive dialogue with representatives of Building and Wood Workers' International (BWI) since 2015. A delegation is invited to visit QDVC's worksites each year. The two employee Board members and the Secretary General of VINCI's European Works Council also take part in these visits. In 2016, the dialogue with BWI resulted in the opening of negotiations for the signing of a tripartite agreement between VINCI, QDVC and BWI. The aim of this agreement is to put in place an action plan with milestones and precise targets relating to improvements in working conditions.

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 (the International Labour Organisation, BWI, the Danish Institute for Human Rights, the Qatar Foundation, the French National Consultative Commission on Human Rights) was formed to assist with methodological aspects of the approach and follow-up on recommendations. VINCI commissioned an independent third party, Business for Social Responsibility (BSR), a global non-profit business network and consultancy, to conduct this study.

4. 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 and is based on the Global Reporting Initiative (GRI) standards – see the cross-reference table on pages 325 and 326.

4.1 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);
 - an IT system 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.

4.2 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;
- in 2016, environmental reporting covered 95% of Group entities by worldwide revenue.

Excluded from environmental reporting in 2016 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 64% of the Group's activities (VINCI Autoroutes, VINCI Energies, VINCI Construction UK, Eurovia, VINCI Airports excluding Cambodia 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:

- 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 2016:

- acquisition by VINCI Construction of J&P Richardson Industries Pty Ltd (Australia) in February 2016;
- acquisition by VINCI Airports of Aerodom (Dominican Republic) in April 2016.

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), all concessions are now covered by the environmental reporting system, following the reporting procedure that applies financial consolidation rules.

4.3 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 special projects;
- 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.

4.4 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 Ministry of Ecology, Sustainable Development and Energy (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 heat networks, which are 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: 0.3 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. The figures published in VINCI's 2015 Annual Report were adjusted to reflect a reduction of 107,169 cubic metres in the consumption of purchased water for VINCI Construction UK.

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.

4.5 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.

4.6 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 2016, 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 209 to 211.



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