## 32. Operating expenses

Operating expenses for the period amount to €2,520.9 million compared to €2,074.6 million for the first half of 2015.

They account for 95.5% of revenue compared to 94.3% for the corresponding period of 2015.

The item may be broken down as follows:

(€'000)	1st half 2016	1st half 2015	Variation
Purchases	515,600	379,950	135,650
Subcontracts	645,419	640,018	5,401
Services	739,948	637,851	102,097
Personnel expenses	420,235	262,169	158,066
Other operating expenses	73,038	56,510	16,528
Amortisation, depreciation, provisions and impairment losses	126,615	98,134	28,481
Total	2,520,855	2,074,632	446,223

The difference in the individual items compared to the corresponding period of 2015 is mainly due to the different cost structures that vary from contract to contract and may, in some cases, entail changes in the industrial operating model from one year to another. Moreover, as these are large-scale infrastructural works that take several years to complete, resort to normal production factors depends on the stage of completion of each contract in any given year. These changes may generate significant variations in the percentage of the related cost categories depending on the contract and the year, while not affecting the total percentage of operating costs of total revenue.

### 32.1 Purchases

The cost of raw materials and consumables incurred in the first six months of 2016 increased by €135.7 million to €515.6 million compared to the corresponding period of 2015:

	1st half 2016	1st half 2015	Variation
(€'000)			
Purchases of raw materials and consumables	508,856	375,860	132,995
Change in raw materials and consumables	6,745	4,090	2,655
Total	515,600	379,950	135,650

The rise in the cost of purchasing raw materials and consumables is in line with the increase in revenue thanks to the acquisition of Lane Group.

#### 32.2 Subcontracts

Costs of subcontracts increased to €645.4 million, up €5.4 million on the corresponding period of 2015 as shown in the following table:

	1st half 2016	1st half 2015	Variation
(€'000)			
Subcontracts	645,419	640,018	5,401
Total	645,419	640,018	5,401

The €5.4 million increase is the sum of the increase for the IS JV's Australian contracts (€20.5 million) partly offset by the reduction in the subcontract costs of the Colombian contracts of Constructora Ariguani, the Cityringen project of CMT I/S in Denmark and the Italian Salerno Reggio Calabria contract (nearing completion).

### 32.3 Services

This item increased to €740.0 million, up €102.1 million on the corresponding period of the previous year, as shown in the following table:

	1st half 2016	1st half 2015	Variation
(€'000)			
Consultancy and technical	202 500	404 220	00.054
services	283,590	191,239	92,351
Fees to directors, statutory	6,251	6,430	(179)
auditors and independent auditors	0,231	0,430	(179)
Employee travel costs	2,267	3,466	(1,199)
Maintenance and testing	18,986	7,473	11,513
Transport and customs	61,606	86,681	(25,075)
Insurance	27,877	33,011	(5,134)
Recharging of costs by consortia	92,346	189,506	(97,160)
Rent and leases	125,988	66,269	59,719
Charge backs	34	176	(142)
Other	121,003	53,600	67,403
Total	739,948	637,851	102,097

"Other" increased by €67.4 million over the first six months of 2015 and includes the cost of temporary workers on CMT IS' Danish contract (Cityringen project) of approximately €68.8 million and costs allocated by joint operations of €4.7 million, while the remainder mostly relates to utilities, seconded personnel, security and board costs.

"Consultancy and technical services" increased by €92.4 million and mainly consist of the design and construction costs incurred by the SPEs and legal and administrative consultancy fees. A breakdown of this item is as follows:

(€'000)	1st half 2016	1st half 2015	Variation
Design and engineering services	201,765	151,329	50,436
Legal, administrative and other services	33,523	29,757	3,766
Testing	378	495	(117)
Construction	47,924	9,658	38,266
Total	283,590	191,239	92,351

The increase is mainly due to design and engineering services and the construction work performed on the Riyadh Metro in Saudi Arabia.

## 32.4 Personnel expenses

Personnel expenses for the year amount to €420.2 million, up by €158.1 million on the corresponding period of 2015. The item is made up as follows:

	1st half 2016	1st half 2015	Variation
(€'000)			
Wages and salaries	335,465	217,367	118,098
Social security and pension contributions	69,938	37,287	32,651
Post-employment benefits and employee benefits	7,203	7,435	(232)
Other	7,629	80	7,549
Total	420,235	262,169	158,066

<sup>&</sup>quot;Other" mainly relates to termination benefits and reimbursements of travel expenses.

# 32.5 Other operating expenses

Other operating expenses amount to €73.0 million, up €16.5 million on the corresponding period of 2015.

This item is made up as follows:

	1st half 2016	1st half 2015	Variation
(€'000)			
Other operating costs	38,462	20,288	18,174
Commissions on sureties	21,105	24,175	(3,070)
Bank charges	5,449	3,115	2,334
Losses on the disposal of			1,278
property, plant and equipment	2,331	1,053	1,270
Other prior year expense	5,691	7,879	(2,188)
Total	73,038	56,510	16,528

The increase in other operating costs is mainly due to the Ethiopian branch (€11.2 million), Salini Nigeria (€1.7 million) and the Cetin contract of the Salini - Insaat - NTF JV in Turkey (€0.9 million).

## 32.6 Amortisation, depreciation, provisions and impairment losses

This item of €126.6 million shows an increase of €28.5 million on the balance for the corresponding period of the previous year. It may be analysed as follows:

	1st half 2016	1st half 2015	Variation
(€'000)			
Impairment losses	4,206	(6,382)	10,588
Provisions (Utilisations)	(1,116)	3,492	(4,608)
Total provisions and impairment losses, net of the	2 000	(2.900)	E 000
utilisations	3,090	(2,890)	5,980
Amortisation of intangible assets	774	186	588
Depreciation of property, plant and equipment	108,001	91,912	16,089
Amortisation of rights to infrastructure under	666	752	(86)
concession	000	132	(00)
Amortisation of contract acquisition costs	14,084	8,174	5,910
Total amortisation and depreciation	123,525	101,024	22,501
Total	126,615	98,134	28,481

Provisions and impairment losses increased by €6.0 million in the period.

Specifically, impairment losses recognised in the related allowance mainly refer to the Kazakhstani branch, recognised to adjust the carrying amount of receivables from Todini Costruzioni Generali S.p.A. as per the agreement for the sale of the Todini branches.

"Provisions (Utilisations)" includes the release of accruals made in previous years following the updated risk forecasts for the consortium active in the Dominican Republic as well as accruals made by the subsidiary Imprepar for three pending disputes.