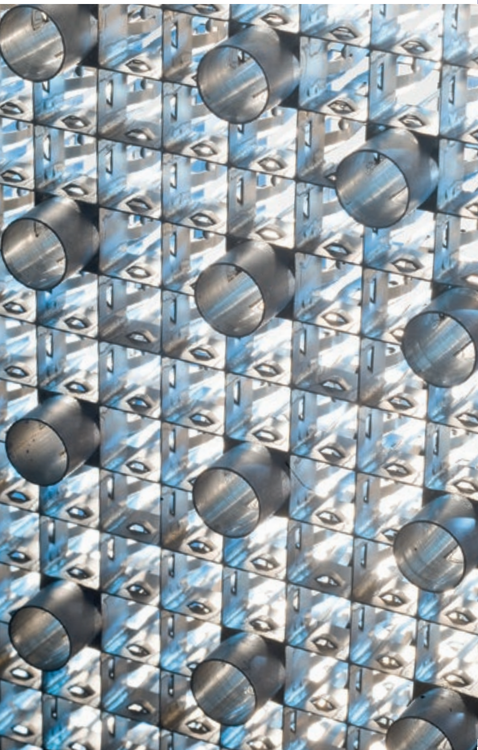
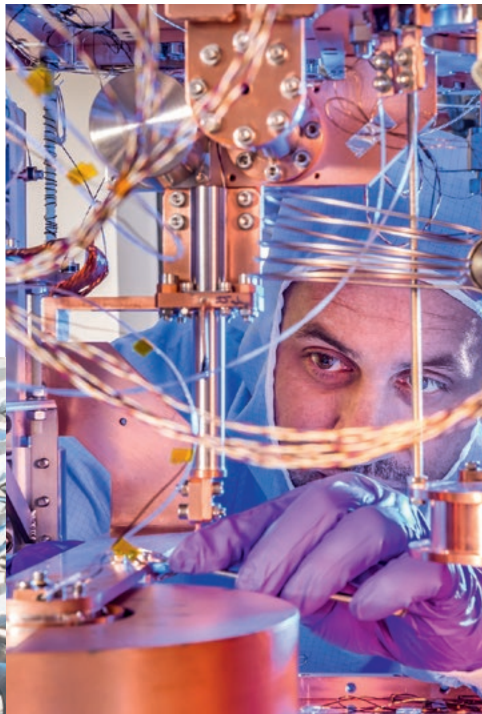
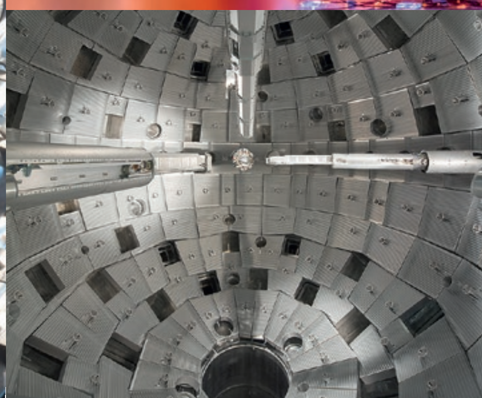
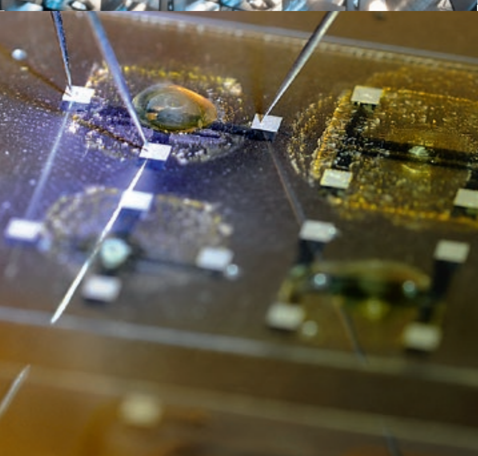







The CEA Financial report 2018

Contents

MANAGEMENT REPORT

ANNUAL FINANCIAL STATEMENTS

Management Report

1. Implementation of the budget

The CEA's management accounts for 2018 showed a surplus of €92 million in the civil sector and of €25 million in the defence sector.

	2017	2018	Variation 2018/2017 %
Civil sector			
Total income	3,079	3,325	+ 8
Total expenditure	*3,020*	*3,314*	*10*
Balance of civil-defence flow	*- 67*	*- 82*	*+ 21*
Total expenditure on civil programmes	2,953	3,233	9
MANAGEMENT BALANCE - CIVIL SECTOR	**126**	**92**	***ns***
Defence sector			
Total income	1,927	1,950	+ 1
Total expenditure	*1,793*	*1,843*	*+ 3*
Balance of civil-defence flow	*67*	*82*	*+ 21*
Total expenditure on defence programmes	1,861	1,924	+ 3
MANAGEMENT BALANCE - DEFENCE SECTOR	**66**	**25**	***ns***

(in millions of €)

2. Income

Income was up by 5% compared to 2017. In 2018, the CEA's income was €5,275 million, up by €269 million compared to 2017, taking account of extraordinary transactions in 2017 and 2018 on the CEA's equity interests:
- in 2017: reassignment of the CEA's shareholding in AREVA SA (€270 million) to the French State, in return for acquiring a stake in Orano SA for an equivalent same sum;
- in 2018: disposal of shares in Orano SA and FT1CI and use of extraordinary income from the State (paid in 2017 and 2018) to partly pay off the CEA's debt to Orano Cycle (€541 million).

The civil subsidy accounts for 38% of civil income and the defence subsidy for 85% of defence income.
State subsidies worth €112 million were paid to the CEA under France's Investment for the Future Programme for the Jules Horowitz Reactor (JHR) and the Astrid Gen IV programme.

	2017		2018		Variation 2018/2017
	in millions of €	%	in millions of €	%	%
Civil sector					
Subsidies other than under Investment for the Future Programme or for ITER	987	32	1,033	31	+ 5
ITER subsidy	105	3	133	4	*ns*
Investment for the Future subsidy	113	4	112	3	- 0
External income	1,127	37	874	26	- 22
Funds for civil and defence clean-up operations	663	22	1,115	34	*ns*
Use of CSA* funds	4	0	4	0	- 9
Carried over from previous year	80	3	55	2	- 32
TOTAL CIVIL SECTOR	**3,079**	**100**	**3,325**	**100**	**+ 8**
Defence sector					
Subsidy	1,616	84	1,653	85	+ 2
External income	60	3	72	4	+ 19
Funds for defence clean-up operations	169	9	160	8	- 6
Carried over from previous year	82	4	66	3	*ns*
TOTAL DEFENCE SECTOR	**1,927**	**100**	**1,950**	**100**	**+ 1**

* CSA: Complementary Safety Assessments

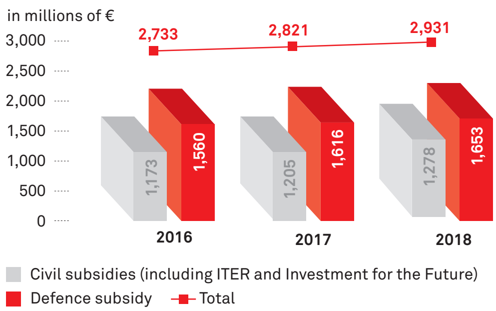
a. Changes in State subsidies

Civil sector:

The €73 million increase in civil subsidies between 2017 and 2018 breaks down as follows:
- an increase of €46 million in the State subsidy (excluding funds under the Investment for the Future Programme or for ITER), taking account of the increase in the subsidy granted to very large-scale international research infrastructures, the share in funding the Nano 2022 plan, and cancellation of credits charged to the 2017 management subsidy, which were not carried over to 2018,
- an increase in the ITER subsidy of €28 million
- a more or less equivalent subsidy under the Investment for the Future Programme (down by €1 million). The sum received in 2018 relative to the JHR represented the balance payable under the first Investment for the Future Programme (€248.4 million).

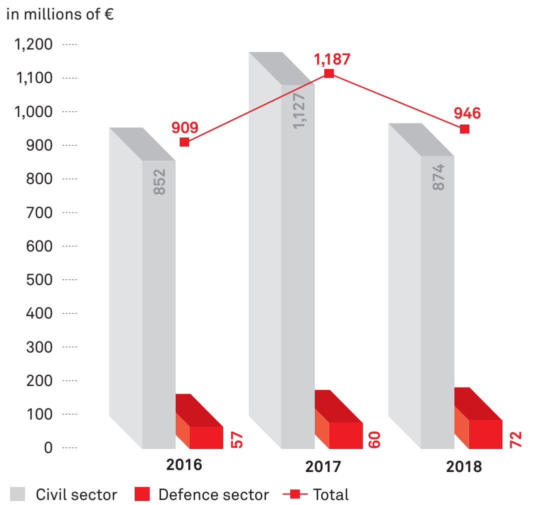
Defence sector:

The 2% increase in the subsidy from 2017 to 2018 is linked to funds needed for various stages of progress on projects.



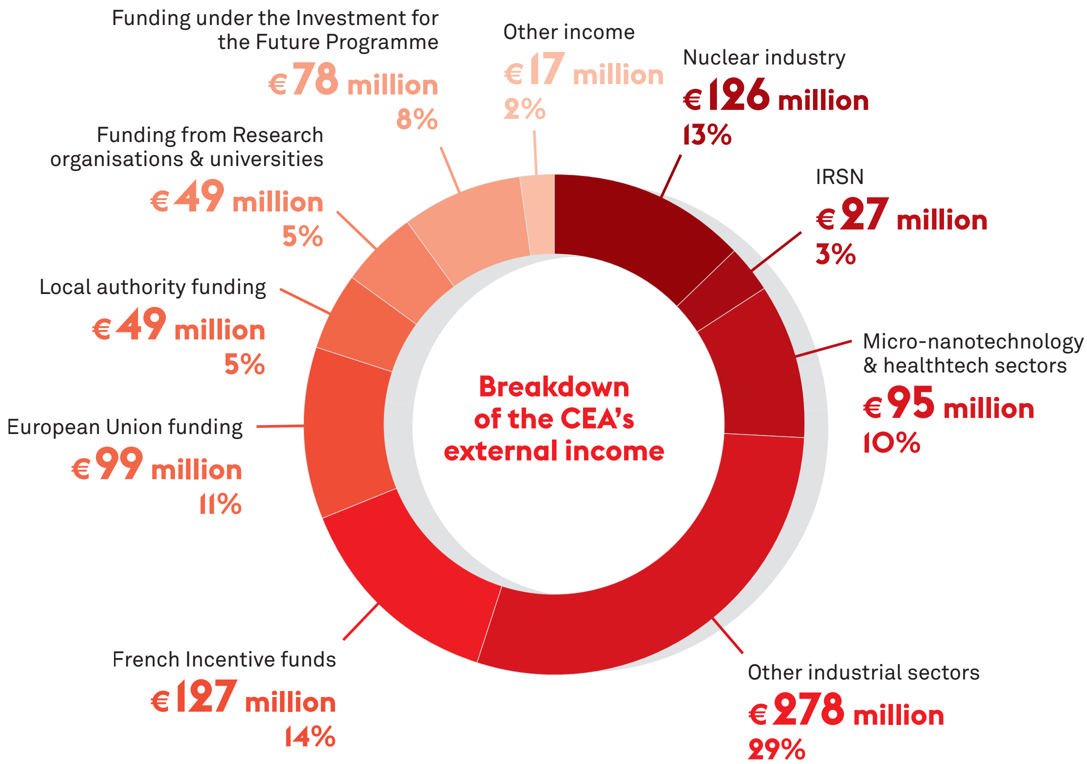
b. Changes in external income by sector

Total external income decreased by 20.3% between 2017 and 2018, with a 22.4% drop for the civil sector and a 19.2% increase for the defence sector.
The drop in income in the civil sector is mainly due to extraordinary income of €270 million in 2017, from exercising an option to reassign the CEA's residual shareholding in AREVA SA to the French State (after repayment of a cash advance), which enabled the CEA to acquire a stake in Orano for an equivalent value.
Offsetting this extraordinary income, external income for the civil sector increased by 3.2% between 2017 and 2018.



c. External income by type of partner

External income comes from industrial partners (55.7%), and institutional partners (44.3%).



3. Expenditure

In 2018, CEA expenditure reached €5,157 million, i.e. €343 million more than in 2017. Expenditure in 2018 increased by 7% compared to 2017 across the CEA as a whole. Expenditure increased by 9% in the civil sector and 3% in the defence sector.

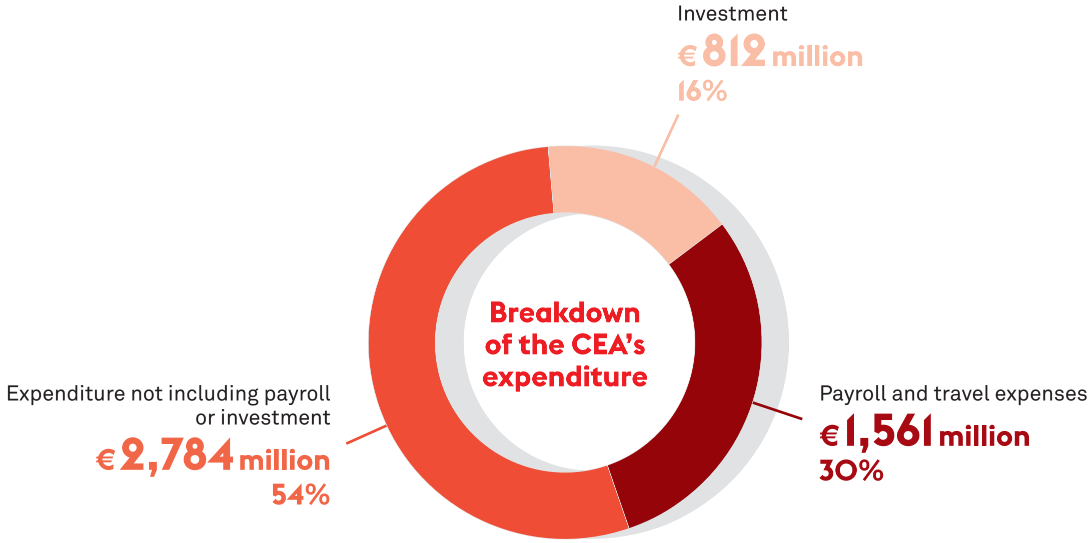
This increase is primarily related to two extraordinary operations that occurred in 2017 and 2018:

- first, the acquisition of as stake in Orano SA in 2017 for the sum of €270 million, financed by the reassignment of the CEA's residual shareholding in AREVA SA to the French State;
- and second, the partial repayment of the CEA's debt to Orano Cycle in 2018, worth €541 million, compared to the annual repayment of €30 million due under the previous repayment schedule.

After offsetting the impact of both these operations, the CEA's expenditure increased by €103 million, which breaks down as follows:

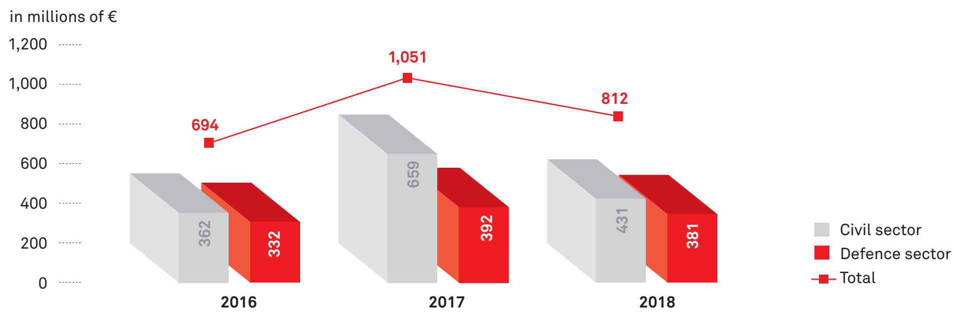
- an increase of €72 million in defence sector expenditure, excluding dedicated funds, in line with progress on programmes developed by the CEA's Military Applications Division (DAM);
- an increase of €32 million in civil sector expenditure, excluding dedicated funds, mainly spent on ITER, JHR, Astrid, and very large research infrastructure projects.

	2017		2018		Variation 2018/2017
	in millions of €	%	in millions of €	%	%
Civil sector					
Payroll and travel expenses	1,142	39	1,144	35	+ 0
Expenditure not including payroll or investments	1,219	41	1,740	54	+ 43
Investments	659	22	431	13	- 35
Balance of civil-defence flow	- 67	- 2	- 82	- 3	+ 21
TOTAL CIVIL SECTOR	**2,953**	**100**	**3,233**	**100**	**+ 9**
Defence sector					
Payroll and travel expenses	415	22	417	22	+ 1
Expenditure not including payroll or investments	987	53	1,045	54	+ 6
Investments	392	21	381	20	- 3
Balance of civil-defence flow	67	4	82	4	+ 21
TOTAL DEFENCE SECTOR	**1,861**	**100**	**1,924**	**100**	**+ 3**



The structure of 2018 expenditure shows a reduction in investments compared to 2017, related to the acquisition, in 2017, of a shareholding in ORANO, achieved in return for exercising an option to reassign the CEA's residual shareholding in AREVA SA to the French State. After offsetting this extraordinary expenditure item from 2017, investment spending rose by 4% between 2017 and 2018.

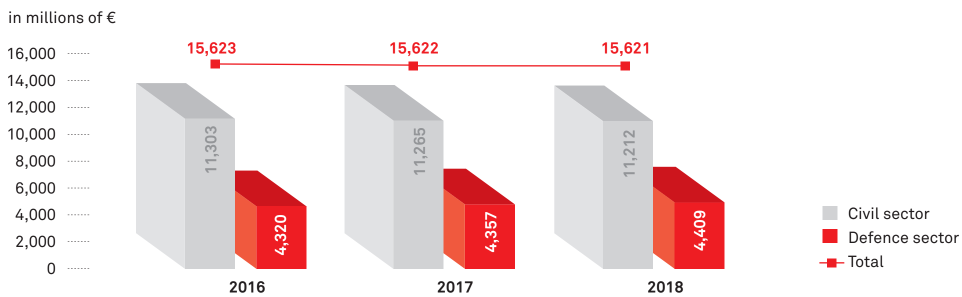
Investments



4. Staff numbers

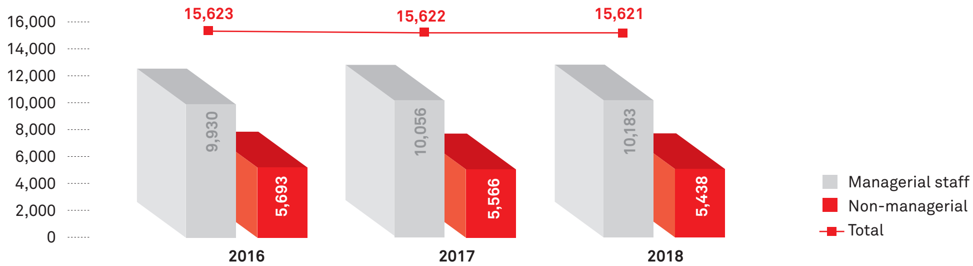
a. Changes in staff numbers by sector

In 2018, the CEA had a workforce of 15,621 FTE on permanent employment contracts, with 11,212 in the civil sector and 4,409 FTE in the defence sector, more or less unchanged compared to 2017.
This overall stability is a result of a reduction in staff numbers in the civil sector (-53 FTE), balanced out by an increase in the defence sector (+52 FTE).

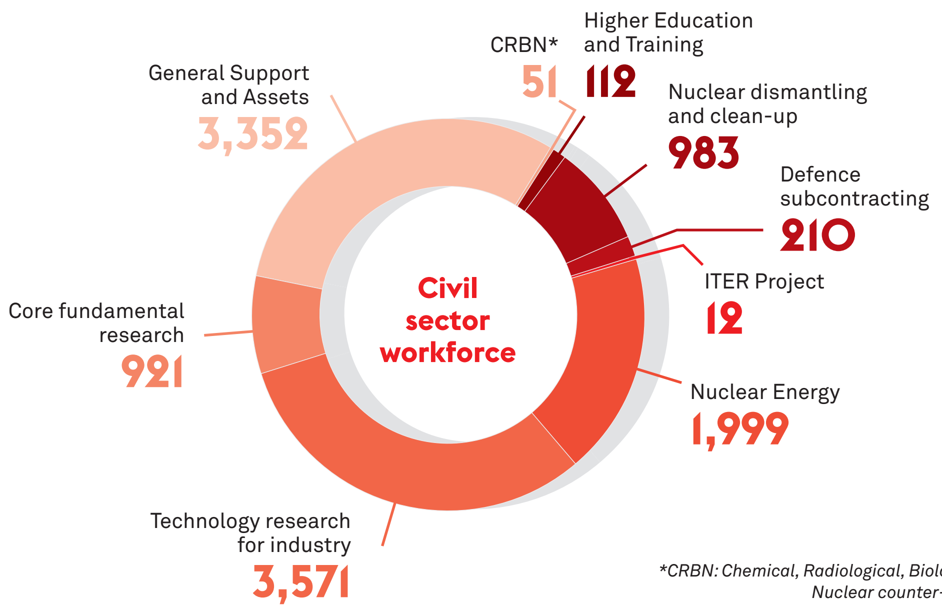


b. Changes in workforce by status

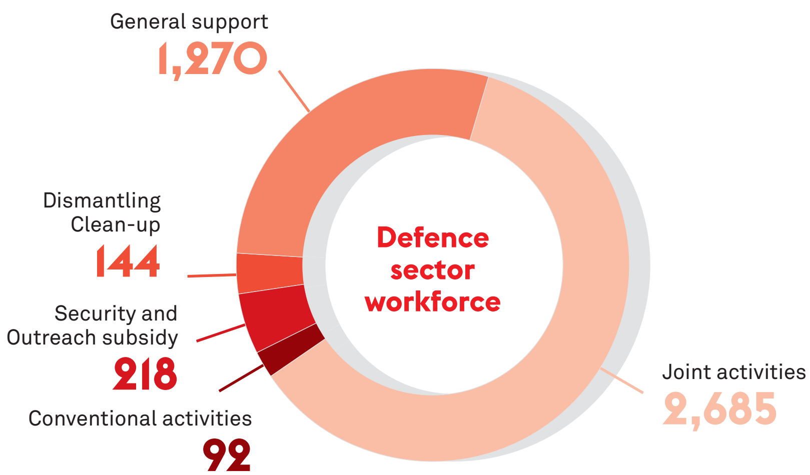
Managerial staff account for 65.2% of the workforce, slightly more than in 2017 (+1.3%).



c. Changes in workforce by field in each sector



**CRBN: Chemical, Radiological, Biological and Nuclear counter-terrorism*



5. Funds to cover clean-up and dismantling costs

On 31 December 2018, the discounted value of funds committed for end-of-cycle operations came to €16,727 million and provision for retrospective adjustment of the Cigeo contribution was €16 million, a total of €16,743 million at discounted value. These commitments are covered by two dismantling funds under the Framework Agreement1 to the amount of €16,665 million. The remaining €78 million represents the share payable by the State for non-recoverable VAT on civil facility projects not financed by the civil fund.

RECEIVABLES (IN MILLIONS OF €)	31.12.2018	31.12.2017
Claims on the State	**17,096**	**17,200**
of which Framework Agreement funds	17,018	17,119
excluding above funds	78	81
Claims on the State relating to CIGEO financing adjustment	**16**	**16**
Dismantling assets Third parties	**5**	**4**
AREVA shares	**-**	**-**
WCR and liquid assets	**- 338**	**- 731**
TOTAL	**16,779**	**16,489**

LIABILITIES (IN MILLIONS OF €)	31.12.2018	31.12.2017
Provisions for end-of-cycle operations	**16,727**	**16,429**
of which Framework Agreement funds	16,541	7,428
Funds covering new civil facilities	22	24
Funds covering new defence facilities	86	73
State	78	81
Provisions for CIGEO adjustment	**16**	**16**
TOTAL	**16,743**	**16,445**

The above liabilities are covered by several types of receivable:
• a claim on the State worth €17,112 million;
• income from IRSN worth €5 million;
• a cash position of -€338 million, relating to WCR and liquid assets including unrealised gains, which include the CEA's debt to Orano Cycle (-€172 million).

On this basis, the CEA's receivables-to-liabilities coverage ratio was 100.23% as on 31 December 2018.

[1] On 31 December 2018, the former civil and defence funds were merged for accounting purposes.

6. Purchasing management – DAPS*

Roughly half of the CEA's budget is spent on purchasing. As a public operator, the CEA must abide by the principles of free access to public procurement contracts, equal treatment of economic operators, and transparent procedures laid down by European Community legislation and transposed into French law. These principles seek to guarantee efficient purchasing and proper use of public funds.
CEA purchasing activities are subject to a regulatory framework comprising the instruments transposing Directive 2014/24/EU of 26 February 2014 into French Law:
• Order no. 2015-899 of 23 July 2015 on public procurement;
• Decree no. 2016-360 of 25 March 2016 on public procurement;
The above regulations have been in force since 1 April 2016.
In terms of official oversight, an Advisory Committee for Procurements and Contracts, which is independent of the CEA, was set up by the Order of 6 December 1952 (amended). This Committee examines the CEA's major draft contracts and framework agreements against certain thresholds defined in the Order mentioned above It publishes an annual activity report that is examined by the CEA's Executive Board's Audit Committee, which reports its findings to the Executive Board.
In 2018, the Advisory Committee was asked by its Chairperson to examine 313 contracts worth a total sum of €1,200.7 million. The opinions and recommendations issued by the Advisory Committee help to make the CEA's purchasing process more efficient and improve its procurement procedures.
The CEA's programmes are often highly complex. It therefore works to improve its contract drafting process by anticipating any endogenous or exogenous contingencies that could affect contract performance. This approach makes it possible to establish contract solutions designed to limit the need for amending contracts, and thereby ensure better control over project lead times and costs at completion. Suppliers are regularly reviewed to check that their skills and capabilities meet the CEA's strict requirements regarding safety and security, especially in the field of clean-up and dismantling in the nuclear industry.
According to Decree No. 2016-311 of 17 March 2016 relative to the organisation and operation of the French Alternative Energies and Atomic Energy Commission, the CEA is required (in paragraph 4) to contribute to boosting France's competitiveness

** Purchasing and Strategic Partnerships Division* through technological development and the transfer of knowledge, skills and technology to industry, especially at regional level, and to transferring the results of its scientific research to industry. To this end, the CEA seeks to enable as many small and medium-sized businesses as possible to participate in the tendering process. Such economic operators are often highly innovative, and the CEA helps to stimulate this innovation capacity in order to meet its needs, thereby also meeting the French government's objectives for encouraging innovative growth. Since 2004, the CEA has been a signatory of the French government's "SME Pact". In 2018, the CEA awarded approximately 28% of its procurement contracts to small and medium-sized businesses or to mid-caps, for a value of around €750 million.

In 2010, the CEA committed itself to responsible relations with suppliers, by signing the "Relation fournisseurs responsables" (responsible supplier relations) charter. Article 30 of the "Public Procurement" Order of 23 July 2015 requires that the nature and scope of needs must be precisely defined prior to the launch of procurement procedures, and that they take account of sustainable development goals in all their economic, social and environmental aspects. The CEA has therefore undertaken to gradually improve its economic, environmental and social performance at the various stages of the procurement process wherever circumstances permit. In 2018, around 13% of contracts included environmental or social provisions.

The CEA's Purchasing and Strategic Partnerships Division also works constructively with the French government Directorate of Public Procurement (DAE), going well beyond its statutory obligations towards the DAE as a public body.

Under the DAE's procurement action plan, the CEA makes a significant contribution to the procurement performance of public bodies.

The CEA has adopted the State platform for paperless procurement processes (PLACE), which is operated by the DAE.

Under a permanent procurement pooling consortium agreement, the CEA can also take part in contracts initiated by the DAE, as well as other inter-ministerial contracts. For instance, it has taken an interest in contracts for assisting project owners and managers in IT service provision.

The CEA has also joined MATINFO, the procurement consortium led by the CNRS's central purchasing department, which, by pooling resources and simplifying procedures, enables it to acquire computer hardware such as servers and workstations. Depending on the equipment purchased, this results in estimated savings of between 10 and 20%.

The CEA has been invited by the DAE a number of times to share information on its procurement procedures and performance assessment.

7. Outlook for the 2019 CEA Budget

In the CEA's budget for 2019, funding is up by 9.3% from the 2018 budget.

The State subsidy in the 2019 budget, including funding under the Investment for the Future Programme, accounts for 64% of all funding, an 8.5% increase on the 2018 budget, in view of the 2019 programme of defence projects and the financing needs for the JHR and ITER projects and for high-performance computing.

External income is expected to fall by 4.8% compared to the 2018 budget, including a reduction in income under the Investment for the Future Programme (PIA).

The two dismantling funds, one for civil and one for defence facilities, will account for 18% of the CEA's total funding.

Expenditure in the civil sector is expected to rise by 6.0% compared to the 2018 budget.

Payroll costs for staff who come under the collective bargaining agreement should rise by 0.4% in the civil sector, compared to the 2018 budget, based on a slight reduction in staff numbers (-0.1%).

Staff numbers in the civil sector general support branches will remain stable (+0.2%) compared to the 2018 budget.

Expenditure in the defence sector is expected to rise by +7.6% compared to the 2018 budget, related to progress expected on projects.

Payroll costs for staff who come under the collective bargaining agreement should fall by -0.5% in the defence sector, compared to the 2018 budget, based on a slight increase in staff numbers of 1.2%.

Staff numbers in the defence sector general support branches are expected to increase slightly (+1.1%) compared to the 2018 budget.

Annual financial statements

1. Income Statement

The 2018 Income Statement shows a loss of **-€371 million**, up by €144 million on the previous financial year. This variation is mainly due to an improvement in operating income (+€56 million) and extraordinary income (+€121 million), together with a reduction in financial income (-€33 million).
The funds set aside to cover the costs of end-of-cycle operations as required under the Framework Agreement showed a loss of €391 million. This is primarily due to writing off claims receivable from the State (-€341 million) following the transfer to funds set aside for shares in Orano SA and FT1CI. This transfer of shares to the State and their subsequent sale to Bpifrance was necessary to enable the CEA to partly repay its debt to Orano Cycle (see Addendum 2 to the memorandum of understanding relative to the transfer to Cogema of liabilities relative to future clean-up and dismantling operations at the Le Hague site and the CFCa facility at Cadarache, signed on 22 Decembrer 2004).
The balances of the civil and defence funds for new facilities (€1 million and -€2 million respectively) is mainly due to unrealised gains for the civil fund for new facilities and costs not covered by write-back of provisions for the defence fund for new facilities.

- General budget (excluding carry-overs)............ €21 M
- Funds set aside under the Framework Agreement ....€- 391 M
- New Civil Facilities (INC)..................................... €1 M
- New Defence Facilities (IND) .... - € 2 M
- ITER ....- €M
- DSND[1] ....- €M
- DDCG ....- €M
- AFNI ....- €M
- I2EN ....- €M
- IRT..- €M

The management figures for the general budget not including carry-overs from previous years (€21 million) includes the change in provisions for paid leave (€14 million) and the change in provisions for time savings accounts (CET – Compte Epargne Temps) (€1 million).

[1] DSND: Representative in charge of nuclear safety and radiation protection for defence-related activities and facilities.

	Reference Notes	2018	2017
Sales		12	8
Building works		286	323
Provision of services		179	196
INCOME	**NOTE 3**	**477**	**527**
Production added to inventory		45	128
Capitalised production		28	32
Budgeted operating income	NOTE 4	2,362	2,252
Write-backs of provisions	NOTE 8	779	805
Write-backs of equipment grants	NOTE 9	491	453
Other income		99	76
OPERATING INCOME		**4,281**	**4,273**
Year's expenditure	NOTE 5	- 2,025	- 2,095
Tax, duties and similar payments	NOTE 6	- 222	- 223
Staff costs	NOTE 7	- 1,486	- 1,508
Allocations to depreciation and provisions	NOTE 8	- 538	- 492
Share of profits from joint operations	NOTE 10	-	-
Other expenditure		- 7	- 7
OPERATING EXPENDITURE		**- 4,278**	**- 4,325**
OPERATING INCOME / LOSS		**3**	**- 52**
Financial income		1,033	733
Financial expenses		- 1,077	- 744
NET FINANCIAL INCOME (LOSS)	**NOTE 11**	**- 44**	**- 11**
INCOME (LOSS) FROM OPERATIONS		**- 41**	**- 63**
Extraordinary income		371	707
Extraordinary expenses		- 701	- 1,159
EXTRAORDINARY INCOME (LOSS)	**NOTE 12**	**- 330**	**- 452**
CORPORATE INCOME TAX		**-**	**-**
NET INCOME (LOSS)		**- 371**	**- 515**

(in millions of €)

2. Balance sheet

Assets	Reference Notes	Amount as on 31.12.2018	Excluding dedicated funds	Dedicated funds	Amount as on 31.12.2017
INTANGIBLE FIXED ASSETS	NOTE 13				
Gross amounts		342	342	-	337
Depreciation		- 265	- 265	-	- 254
TANGIBLE FIXED ASSETS					
Other tangible assets	NOTE 13				
Gross amounts		15,644	15,644	-	15,011
Depreciation		- 7,683	- 7,683	-	- 7,359
DISMANTLING ASSETS - THIRD PARTIES	NOTE 14	5	0	5	5
FINANCIAL FIXED ASSETS	NOTE 15				
Gross amounts		212	212	-	543
Provisions		-	-	-	- 26
FIXED ASSETS					
Gross amounts		16,203	16,198	5	15,896
Depreciation and provisions		- 7,948	- 7,948	-	- 7,639
NET AMOUNTS		8,255	8,250	5	8,257
INVENTORY AND WORK-IN-PROGRESS	NOTE 16				
Gross amounts		6,340	6,340	-	6,279
Provisions		- 17	- 17	-	- 19
NET AMOUNTS		6,323	6,323	-	6,260
ADVANCE PAYMENTS PAID ON ORDERS		47	47	-	50
OPERATING RECEIVABLES					
Gross amounts		875	857	18	872
Provisions		- 53	- 53	-	- 53
NET AMOUNTS		822	804	18	819
CLAIMS ON THE STATE	NOTE 18	17,112	78	17,034	17,216
MISCELLANEOUS RECEIVABLES	NOTE 19	734	734	-	753
CASH BALANCES AND SECURITIES	NOTE 20				
Gross amounts		285	87	198	574
Provisions		- 9	- 1	- 8	- 4
NET AMOUNTS		276	86	190	570
OTHER		21	21	-	18
FOREIGN EXCHANGE GAINS		-	-	-	-
REDUCTION IN CLAIMS ON THE STATE		-	-	-	-
GENERAL TOTAL		33,590	16,343	17,247	33,943

(in millions of €)

Liabilities	Reference Notes	Amount as on 31.12.2018	Excluding dedicated funds	Dedicated funds	Amount as on 31.12.2017
Special reserves	NOTE 21	14,547	13,554	993	14,269
Equipment grants received from third parties		1,187	1,187	-	1,113
Balance carried forward from previous financial years	NOTE 22	- 944	- 338	- 606	- 483
Balance for the year	NOTE 22	- 371	21	- 392	- 515
EQUITY CAPITAL		14,419	14,424	- 5	14,384
PROVISION FOR LIABILITIES AND CHARGES	NOTE 23	16,868	203	16,665	16,567
FINANCIAL DEBTS		225	225	-	128
ADVANCE PAYMENTS RECEIVED ON ORDERS		35	35	-	59
OPERATING PAYABLES		1,310	758	552	1,873
MISCELLANEOUS PAYABLES		655	655	-	849
OTHER		78	43	35	83
FOREIGN EXCHANGE LOSSES		-	-	-	-
INCREASE IN CLAIM ON THE STATE		-	-	-	-
OVERALL TOTAL		33,590	16,343	17,247	33,943

(in millions of €)

The loss carried forward once again (-€944 million) is primarily due to management of the civil dedicated fund, which initially produced a financial imbalance when it was set up.

3. Budget reconciliation

The accounting result for the financial year (operations and investment) and the budget balance are reconciled after eliminating non-budgeted transactions by type (change in supply inventories, allocations to and write-back of depreciations, allocations to and write-back of provisions on inventory, certain extraordinary expenses/income, write-back of equipment grants, capitalised production) and offsetting the supplementary budgets, funds for dismantling, the IRT, the AFNI (Agence France Nucléaire International), the DSND, DDCG, I2EN and ITER France Agency.

The 2018 budget balance shows a profit of €6 million not including carry-overs from previous financial years.

BUDGET EXPENDITURE	Total expenses (A)	Of which non-budgeted transactions (B)	Of which ancillary budgets (C)	Of which DSND (D)	Of which DDCG (E)	Of which AIF (G)	Of which dedicated funds (H)	Of which AFNI (K)	Of which I2EN (L)	Of which IRT (M)	Total budgeted expenditure (A)-(B)-(C)-(D)-(E)-(F)-(G)-(H)-(I)-(J)-(K)-(L)
OPERATING ACTIVITIES (EXCL. VAT)	-	-	-	-	-	-	-	-	-	-	-
OPERATING EXPENDITURE	-	-	-	-	-	-	-	-	-	-	-
Purchases from third parties over the tax year	2,032	- 38	5	2	-	134	1	-	1	1	1,926
Taxes and duties	222	-	-	-	-	-	-	-	-	-	222
Staff costs	1,487	- 15	3	4	1	2	-	-	-	-	1,491
ALLOCATIONS FOR DEPRECIATION AND PROVISIONS	538	500	-	-	-	1	5	-	-	2	31
SHARE OF NET RESULTS FROM JOINT OPERATIONS	-	-	-	-	-	-	-	-	-	-	-
FINANCIAL EXPENSES	1,077	9	-	-	-	-	1,067	-	-	-	1
EXTRAORDINARY EXPENSES	701	80	-	-	-	-	611	-	-	-	9
CORPORATE INCOME TAX	-	-	-	-	-	-	-	-	-	-	-
ANNUAL SUBSIDY ALLOCATED TO THE SPECIAL RESERVE	-	-	-	-	-	-	-	-	-	-	-
TOTAL FROM PROFIT AND LOSS ACCOUNT	6,056	536	7	6	1	137	1,684	-	1	3	3,680
Reassignment of expenses and income	- 39	-	-	-	-	- 133	- 4	-	-	-	99
Reassignment of Funds	-	-	-	-	-	-	741	-	-	-	- 741
TOTAL OPERATING ACTIVITIES	6,017	536	7	6	1	4	2,399	-	1	3	3,037
Investment activities (excl. VAT)	-	-	-	-	-	-	-	-	-	-	-
Class 1	6	-	-	-	-	-	-	-	-	-	6
Class 2: Acquisition of fixed assets	832	-	-	-	-	-	-	-	-	-	831
Class 4: changes in advances	-	-	-	-	-	-	-	-	-	-	-
TOTAL INVESTMENT ACTIVITIES	838	-	-	-	-	1	-	-	-	-	837
OVERALL TOTAL	6,855	536	7	6	1	4	2,399	0	1	3	3,874

(in millions of €)

BUDGETED FUNDING	Total funding (A)	Of which non-budgeted transactions (B)	Of which ancillary budgets (C)	Of which DSND (D)	Of which DDCG (E)	Of which AIF (F)	Of which dedicated funds (G)	Of which AFNI (H)	Of which I2EN (I)	Of which IRT (J)	Total budgeted funding (A)-(B)-(C)-(D)-(E)-(F)-(G)-(H)-(I)-(J)
OPERATING ACTIVITIES (EXCL. VAT)	-	-	-	-	-	-	-	-	-	-	-
OPERATING INCOME	2,711	66	7	7	1	133	- 727	0	1	0	3,230
Write-backs on depreciation and provisions	779	13	-	-	-	-	741	-	-	-	23
Write-backs on equipment grants and contributions received from third parties	491	489	-	-	-	-	-	-	-	2	-
FINANCIAL INCOME	1,033	9	-	-	-	-	1,016	-	-	-	8
EXTRAORDINARY INCOME	371	81	-	-	-	-	267	-	-	-	22
ANNUAL ALLOCATION TO THE SPECIAL RESERVE	371	371	-	-	-	-	-	-	-	-	-
TOTAL PROFIT AND LOSS ACCOUNT	6,056	1,029	7	7	1	136	1,292	-	1	3	3,580
Reassignment between income and expenditure	- 39	-	-	-	-	- 133	- 4	-	-	-	99
Reassignment of funds	- 741	-	-	-	-	-	-	-	-	-	- 741
TOTAL OPERATING ACTIVITIES	6,018	1,029	7	7	1	3	1,288	-	1	3	2,937
INVESTMENT ACTIVITIES (EXCL. VAT)	-	-	-	-	-	-	-	-	-	-	-
Class 1											
Financial debts	6	-	-	-	-	-	-	-	-	-	6
Subsidies received from third parties during the financial year	171	-	-	-	-	1	-	-	-	-	170
Class 2: Movement in financial assets (receivables)	2	-	-	-	-	-	-	-	-	-	2
Allocation of the State subsidy to the Special reserve and Equipment Grants	765	-	-	-	-	-	-	-	-	-	765
TOTAL INVESTMENT ACTIVITIES	943	-	-	-	-	-	-	-	-	-	943
OVERALL TOTAL	6,961	1,029	7	7	1	3	1,288	0	1	3	3,880

(in millions of €)

4. Cash flow schedule

		31.12.2018	31.12.2017
Operating activities			
Cash from operations (1)		- 2,170	- 3,013
• Carry-overs		29	2,725
• Changes in inventory		- 75	- 76
• Changes in accounts receivable including advance payments and deposits on fixed assets		3	415
• Changes in debt		- 785	- 3,112
CASH FROM OPERATING ACTIVITIES	(A)	- 2,998	- 3,061
Investment activities			
• Proceeds from the disposal of tangible and intangible fixed assets		274	648
• Acquisition of tangible and intangible fixed assets		- 868	- 789
• Changes in financial assets		- 332	- 488
• Changes in Dismantling assets - Third Party		-	-
CASH FROM INVESTMENT ACTIVITIES	(B)	- 926	- 629
CASH BALANCE AFTER INVESTMENT FINANCING	(C = A + B)	- 3,924	- 3,690
Financing activities			
• Repayment of State advance		577	376
• Changes in financial debt		- 18	6
• Subsidies and contributions received from the State and third parties (2)		2,962	2,844
CASH FROM FINANCING OPERATIONS	(D)	3,521	3,226
NET CHANGE IN TOTAL LIQUIDITY	(C + D)	- 403	- 464
Opening cash balance (*)		505	968
Closing cash balance (*)		102	505
Change in cash position (*)		- 403	- 464

(*) *incl. investment securities*

(in millions of €)

5. Notes to the Annual Financial Statements

A - ACCOUNTING METHODS AND PRINCIPLES

Note 1 - General framework

• Status of the CEA

The provisions of Order No. 2004- 545 of 11 June 2004 – incorporated in Articles L. 332.1 to 332.7 of the Research Code – which repealed Order No. 45-2563 of 18 October 1945, confirm that the CEA, the French Alternative Energies and Atomic Energy Commission, is a scientific, technical and industrial establishment with legal personality and administrative and financial autonomy, which falls within the category of public institutions with industrial and commercial activities (EPIC).

The CEA is also authorised to conduct its own financial management and to present its accounts in accordance with business rules and practices.

• Operation of the CEA

In addition to the Order of 2004 and the provisions of the Order of 1945 which have been provisionally upheld, the operation of the CEA and its relations with the State are defined in various texts, in particular Decree No. 70-878 of 29 September 1970 and its implementing Decree No. 72-1158 of 14 December 1972.

In accordance with the Letter of Engagement of the CEA's Chairman signed by the Prime Minister on 20 April 2015 and the decisions made by the President of the French Republic at the meeting of the Nuclear Policy Council of 8 July 2015, Decree No. 2016-311 of 17 March 2016 pertaining to the organisation and operation of the CEA was adopted and published. This Decree aimed to:

- reform governance of the CEA to enhance strategic oversight of the organisation by its supervisory bodies,
- clarify the CEA's tasks and responsibilities,
- revise existing texts in order to simplify and coordinate with other research bodies.

• Key events of the financial year 2018

- In December 2018, the CEA and Orano Cycle signed a second Addendum to the Memorandum of Understanding relative to the transfer to Cogema of liabilities relative to future clean-up and dismantling operations at the Le Hague site and the CFCa facility at Cadarache, signed on 22 December 2004, which enables early repayment by the CEA of the sum owed (€541 million excl. VAT, which includes a €25 million penalty payment.

In addition to this very significant reduction in its debts, compared to the previous agreement, the CEA thus saved €25 million in interest payable. At year end 2018, the CEA's debt stood at €172 million.

- This transaction was financed thanks to an extraordinary budget allocation from the State of €200 million (€100 million paid at the end of 2017 and €100 million paid at the end of 2018), together with the reassignment to the State and Bpifrance of all shares held by CEA in Orano SA and FT1CI, for €267 million and €74 million respectively.
- Since this debt was confined to the dedicated Funds set up for clean-up and dismantling, and was covered by the claim on the State, this transfer of assets held by the CEA was offset against a claim on the State for the same amount. The write-off of the sum receivable from the State results in an extraordinary loss of -€341 million.
- A €740 million subsidy was paid by the State to finance spending from the dedicated funds set up under the Framework Agreement.
- The claim on the State, which covers clean-up and dismantling liabilities from before 1 January 2010, was €17,112 million at the end of 2018, compared to €17,216 million at the end of 2017. This claim incorporates the effects of (i) accretion and the lower discount rate for the total sum of €985 million, (ii) budgeted credits paid by the State for the total sum of -€840 million (including €100 million for the partial repayment of the CEA's debt to Orano Cycle) and (iii) the write-off of the claim receivable mentioned above, for the sum of -€341 million.
- Provisions relative to end-of-cycle costs were €16,743 million at year closing, compared to €16,445 million at the end of 2017. The discount rate used for liabilities relating to end-of-cycle costs for the CEA was lowered from 4.10% to 3.97% (the regulatory cap), i.e. a positive impact on provisions of +€320 million. Revaluation to 2018 economic conditions and accretion came to €675 million. Write-backs on provisions for building works came to a total of -€742 million, all Funds combined.
- The assumptions used by the CEA to calculate staff related commitments as on 31 December 2018 are the same as those used in 2017: a discount rate of 1.5% and a forecast inflation rate of 1.5%.
- Given the unique nature of funding the dismantling of civil and military facilities commissioned before 31 December 2009, it seemed appropriate to merge the former Civil and Defence dismantling funds for accounting purposes, given that they are no longer separate. The funds allocated for dismantling and clean-up are now treated as one for the purpose of presenting the balance of accounts.
- A study has been launched in liaison with the State with regard to the Jules Horowitz Reactor, to assess the different scenarios relating to the future of this investment. Pending presentation of the conclusions of this study, and as in previous years, the value of the assets recorded in the balance sheet has been maintained at their historical cost.
- Following the observations made by the CEA's supervisory authorities in their letter of December 2018, primarily regarding the final state of facilities, the CEA will incorporate these impacts, which may be significant and which have, until now, been mentioned in the Notes, in its 2019 accounts.

Note 2 – Accounting methods and principles

• General principles

The CEA's Annual Financial Statements are drawn up

using the methods and principles set out in the general chart of accounts in accordance with Regulation No. 2014-03 of the French Accounting Standards Authority (ANC), as ratified by the Order dated 8 September 2014 and published in the Official Journal of the French Republic on 15 October 2014.
Exemptions have been allowed, if, in the valuation of certain assets and liabilities and their calculation, the application of the accounting regulations stipulated by these texts has been deemed unlikely to produce a true representation of the business and assets, given their specific nature (inventory and work-in-progress) or their financing method.
Funds received at the end of the financial year, intended for the funding of services that have not yet been performed, is entered under "Budgeted operating income", and then placed in the "Special reserves" account.
Similarly, if, after appropriation of funds, the balance of transactions for the financial year exceptionally results in a negative balance, including in the event of cancellation of grants recorded over the financial year, in circumstances that do not allow a corresponding reduction in expenditure, because of commitments already performed, this balance is allocated to "Special reserves".

- **Accounting methods and principles applying as at year-end**

a) Intangible assets

Intangible assets include patents and licences acquired, which are depreciated over the useful life of said assets or according to their likely conditions of use. These conditions correspond to the straight-line method and the depreciation rates applied to these asset categories, not exceeding a period of five years. They also include the pre-financing of Andra investments for the acquisition of waste disposal rights, for which depreciation is calculated in proportion to the actual use of these rights, compared to the reserved volume. Research and development costs, whatever their outcome, are treated as expenditure for the financial year.

b) Tangible assets

Tangible assets are valued at the historical acquisition cost or production cost, excluding financial charges and administrative costs.
The CEA applies the component approach for each of its major investments.
Tangible assets are subject to depreciation schedules determined on the basis of their useful life, or their likely conditions of use. These conditions correspond to the straight-line method and the depreciation rates normally applied to these asset categories.
Depreciations entered under the "Land" line correspond to depreciation of developments on these investments.
The key depreciation periods applied are as follows:

- Buildings.. 20 years
- Light constructions .... 10 years
- Technical installations............................10 to 30 years
- Equipment and tools................................3 to 10 years
- Transport equipment .... 4 years
- Furniture, office, and IT equipment .... 3 to 10 years.

Investment subsidies received for the purchase of fixed assets are recorded under the heading "Equipment grants received from the State" or "Equipment grants received from third parties".

c) Dismantling assets - third parties

The share of provisions for end-of-cycle operations corresponding to funding expected from third parties (IRSN) is entered under "Dismantling assets - third parties".
These assets are valued symmetrically with the corresponding provisions, on discounted bases (see Note k (2)).

d) Financial assets

Financial assets are valued at their historical cost. Their book value is calculated on the basis of the share of the net worth of the subsidiary on the accounting date. A provision is set aside when this inventory value, calculated on a share-by-share basis, is lower than the historical cost.

e) Inventory

Inventories of raw materials, basic materials, and strategic materials are valued at their estimated weighted average cost.
Inventories of consumable materials are valued at their weighted average cost.
Work-in-progress, goods-in-process and finished products are valued at their cost price, Cost price corresponds to the purchase cost of goods and services or the production cost excluding overheads and financial charges.
For presentation purposes, the value applied to weapons systems and resources made available to the Armed Forces is the value of the materials alone, which will ultimately be recovered by the CEA.
As these materials were procured and funded under specific programs, they cannot be converted into realisable or disposable assets and do not give rise to any depreciation.
Inventories of consumable materials and basic materials are considered used once they have been made available to the end user, or have entered the reactor, or become part of a cycle involving exposure to radiation.
At the end of the financial year, the value of inventories of consumable materials is assessed on the basis of their value in use or the utility value of the materials.

f) Claim on the State

Under the provisions of Amendment 1 to the State/CEA Framework Agreement on the financing of the CEA's long-term nuclear costs, the total amount of the claim on the State (Dedicated Civil Fund + Dedicated Defence Fund) as on 31 December 2018 was established (€17,112 million).
The accounting implications of this Agreement are explained in Note 18.

g) Impairment of trade receivables
Impairments are valued on a case-by-case basis according to assessment of the risk involved. Unless duly justified, a provision will be recognised on 31 December for any receivables still outstanding six months after their due date for which a provision has not yet already been made.

h) Investment securities
Investment securities are recorded in the balance sheet at their acquisition cost.
Furthermore, as at the closure date, any unrealised gains or losses are calculated on the basis of the last known net asset value of the units or shares, in the case of UCITS, and, in the case of bonds, on the basis of the last rate for December.
A provision is made for unrealised losses recorded at the end of the financial year.

i) Budget subsidy received from the State
The budget subsidy awarded by the State is entered under "Equipment grants", "Special reserves" or "Budgeted operating income" depending on the nature of the expenditure it is being used to cover.
Since the CEA's activities are of national importance, these resources are allocated first and foremost to cover ongoing requirements, and the balance is used to finance net operating expenditure over the financial year.
The amount entered under "Equipment grants" corresponds to the residual value of intangible and tangible fixed assets, excluding non-budgeted transactions concerning advances and deposits paid on orders for fixed assets.
The amount entered under "Special reserves" mainly represents the financing of financial assets and inventories.
The amount entered under "Budgeted operating income" represents the share of the funds received from the State allocated to net operating expenditure over the financial year.

j) Equipment grants received from the State and third parties
These grants are recognised in the income statement according to the estimated life or duration of service of the fixed assets that they have helped to finance.

k) Provision for liabilities and charges
A provision is created where there is an obligation towards a third party on the year-closing date that the CEA is able to estimate with sufficient reliability, whether this obligation is legal, contractual or implicit, and whether or not it is the subject of a probable disbursement to a third party.
No provision is made for contingent liabilities, corresponding to an obligation that is neither likely nor definite at year closing. A note is included in the Notes if these liabilities are significant.

1. Staff-related commitments
In view of the way in which the CEA is financed, its staff commitments, consisting of retirement benefits, and other post-employment commitments are not recognised as provisions, but recorded as off-balance sheet commitments, with the exception of those actually invoiced to clients, which will be provided for in a provision for charges.

2. End-of-cycle commitments
a) Funds for dismantling nuclear facilities
The provisions associated with dismantling nuclear facilities correspond to the total cost of the operation in cases where the CEA is the nuclear facility operator, or to the share attributable to it through its past involvement in a programme, or as joint operator of a facility if the CEA is not considered to be the nuclear operator. As the deterioration is immediate, these provisions are set up as soon as the facility is commissioned for operation with radioactive materials.
The corresponding share of provisions to be financed by third parties is broken down into the following categories:
- entry in an account entitled "Dismantling assets to be financed by third parties". Such assets are not subject to depreciation, but instead are converted into accrued income for the years in which decommissioning will take place, in order to represent the amounts owed to the Fund by third parties under the agreed contractual provisions;
- future funding expected from the State is now recognised in an account entitled "Claim on the State", in accordance with the provisions of the State-CEA Framework Agreement. The liquidity of this claim is represented by rolling three-year agreements that have been established and, since 2016, through budget credits provided to Programme 190 of the CEA's "Research and Higher Education" activities, which enables all State funding to the CEA for nuclear facility dismantling and clean-up to be grouped together under these activities.

In a letter dated 1 December 2008, the DGEC, which is the administrative authority that oversees coverage of dismantling provisions by nuclear operators, confirmed that this asset was acceptable as a "coverage" asset as defined in Article 20 of the Act of 28 June 2006 during the transition period provided for under said Act. Similarly, the CEA has worked on the assumption that the cash provided by this asset will meet its cash needs.

b) Assessing the cost of dismantling nuclear facilities
The methods used to assess the costs of facility dismantling are designed to produce the best estimate of the costs and lead times of operations at any given time:
- in the earliest phases, from commissioning onwards, a technical-economic model is applied to the various types of facilities to be dismantled, based on an inventory of facility equipment, and its projected radiological conditions, and on models involving scenarios and elemental cost ratios. If this initial modelling has not been completed, a basic valuation

is performed, based on 15% of the investment cost, which is consistent with the ratio used by EDF following the PEON advisory committee's study on the cost of nuclear power;
- given the wide variety of facilities to be dismantled and the resulting differences in situations from one facility to another, assessment models are based on baseline scenarios that take into account the dismantling of standard cells defined by function (pits, ponds, fabricated equipment and piping, conduits, etc.), together with radiation and contamination levels, accessibility and the interventions means available (existence of handling equipment, equipment for cutting inside the cell, etc.);
- once a dismantling project is launched, studies are conducted to assess clean-up and dismantling costs with a constantly decreasing margin of error;
- finally, once dismantling work is underway, the costs at completion are regularly reviewed, based on current purchase orders and contracts.

Provisions relating to the dismantling of nuclear facilities and waste recovery and conditioning are set up taking the following considerations into account:

- an inventory of the cost of bringing the site to the decommissioning stage, which, unless there are particular requirements to be considered, generally involves the total, unconditional release of the site, i.e. completely eliminating any areas presenting a radioactive hazard, while keeping any structural works in place;
- commencement of operations immediately after the final withdrawal from "production", which means that cost estimates do not take into account any projected site monitoring costs;
- assessment of the expenditure on the basis of projected costs, taking into account the labour of operational staff (operators), managerial staff and radiation protection staff, consumables and facilities, and management of the resulting waste including final disposal. The assessment also takes into account a share of the technical support costs of the CEA units in charge of dismantling;
- lastly, it takes into account the financial impact of the risk analyses carried out for each project. For ongoing projects, the analysis is based on a list of contingencies and risks, and an estimation of their impact in terms of cost and time, weighted according to the probability of their occurrence. If such analysis is not available, the CEA has adopted a macro-level approach that a takes into account the difficulty of the project and the level of knowledge of remaining work, as determined by whether or not the following stages have been reached: internal conceptual designs, preliminary design, detailed design, tendering, work initiation or completion. This is an interim approach, pending the outcomes of risk analyses. For other projects, scheduled for completion in the medium and long term, the analysis is based on operating feedback from ongoing projects according to the type of facility (reactor, laboratory, etc.) and expenditure items (management of project and works, operation, waste);
- inclusion of VAT, calculated on the basis of the current VAT rate (20% as on 31 December 2018) and the flat-rate tax coefficient.

<u>*c) Long-term management of radioactive waste packages*</u>

- Up to the end of 2014, future expenditure related to deep geological disposal was assessed at the end of each financial year, based on the quantities of high- and intermediate-level waste produced (HLW-LL and ILW-LL) as stipulated in the law of 28 June 2006, and assuming that a deep geological disposal facility will be brought into service. Under the aegis of the DGEC, a working group was set up in 2004 with representatives from Andra, EDF, AREVA and the CEA, which submitted its conclusions in the second half of 2005. The CEA performed a reasonable assessment based on the working group's findings and, until the end of 2014, to calculate unit costs for each waste category, adopted a total estimate of €14.1 billion (under 2003 economic conditions) for the deep geological disposal facility.
- The State initiated a review process after which a revised estimate was announced in mid-January 2016 by the Ministry for Ecology, Sustainable Development and Energy, establishing the costs relating to long-term management solutions for high- and intermediate-level long-lived waste (hereinafter referred to as the "Cigeo" project) at €25 billion (under 2011 economic conditions), covering a 140-year period from 2016. This cost, which was generated in the Cigeo project preliminary design phase, replaces the 2005 estimate of €14.1 billion (under 2003 economic conditions), on which the corresponding end-of-cycle provision had been based. Promulgation of this new Cigeo baseline cost led to the CEA setting aside an additional end-of-cycle provision of €858 million at discounted net value at the end of 2015. This provision covers the entire CEA inventory at completion. The historic calculation coefficient for splitting joint costs corresponds to the most likely estimated share and remains unchanged. It also includes a share of risks and contingencies that could increase the published estimate. The Cigeo project is funded by EDF, the CEA and AREVA, according to calculation coefficients based on each organisation's share of the projected volume of waste for geological disposal. The key factors that could influence the level of this provision are the cost of the Cigeo project, the funding calculation coefficient, compliance with planned construction schedules and the discount rate. Provisions have also been made for interim multi-purpose storage facilities, taking into account the four-year delay before the first packages will be received at the Cigeo facility (2029 instead of 2025). In addition, a review of impacts from transport issues and packaging standards was underway at year closing.
- The provisions also incorporate the share of the monitoring costs of two disposal facilities (CSM and

CSA), which accept or have accepted low-level, short-lived waste, as well as expenses connected with the removal and anticipated sub-surface disposal of low-level, long-lived waste owned by the CEA (composed of graphite and radium-bearing waste).

d) Recognising end-of-cycle obligations in the accounts
As on 31 December 2018, taking account of the DGEC's request for more detailed information in its letter following up on the last three-yearly report, regarding the rate of inflation and, therefore, the discount rate, the CEA applied the cap set under the regulations, i.e. 3.97% at year closing 2018, compared to 4.10% at year closing 2017, and maintained the forecast inflation rate of 1.65%, as in 2017.
The effects of accretion over time are taken into account each year in the balance sheet as an increase in the provisions for end-of-cycle operations, offset by the "Financial expenses" entry, while the part relating to financing to be received from third parties and the State is recorded as an increase in the claim on the State, and offset against the "Financial income" entry.
The changes in the assumptions regarding changes in estimates, discount rate and schedules are recorded in the accounts as follows:

- for obligations originating from before 1 January 2010, covered by Amendment 1 to the State/CEA Framework Agreement, and subject to a revised estimate approval process, the provisions will be increased, with a corresponding increase in the Claim on the State;
- for obligations originating on or after 1 January 2010, the provisions will be increased, with a corresponding entry under Expenditure. These obligations are covered by an additional contribution to the CEA, recognised as an asset, with a corresponding entry under Income.

e) Systems and equipment made available to the French Armed Forces
The analyses carried out in 2012 cleared up uncertainties, enabling the end-of-cycle provisions for that year to take into account the irradiated fuel elements from Defence facilities.
The costs of dismantling weapon systems and equipment made available to the Armed Forces are not presented in the off-balance sheet commitments, as they are met by the Armed Forces themselves.
The same applies to the costs of recovering related materials considered to be necessary to the CEA's business.

f) Main sources of uncertainty and of significant risks relating to year closing and contingent liabilities
The additional provisions entered in the accounts at year closing 2017 have made the provisions substantially more robust.
Nonetheless, the CEA remains exposed to certain risks and uncertainties mentioned in the Notes to the financial statements, and which are recapped below. Such risks and uncertainties are chiefly due to the fact that the CEA facilities being dismantled and cleaned up are very old and have specific requirements due to the research activities carried out at them.

Recap of the main sources of uncertainty and of significant risks relating to year closing and contingent liabilities, as mentioned in the Notes to the CEA's Financial Statements.
The valuations used for the end-of-cycle provisions are the CEA's best estimates at the time of closing the accounts of the funds that will be required to fulfil its current and future facility dismantling and clean-up obligations (including waste recovery and conditioning).
Moreover, some of its obligations are likely to lead to disbursements, but given the information available at the time of closing, the CEA is unable to make a reliable estimate of their cost. Other obligations (contingent liabilities) are only potential by nature, and their existence will be recognised only if one or more uncertain future events occur, events which will not be totally under the CEA's control.
The end-of-cycle cost estimate thus includes significant uncosted uncertainties that need to be mentioned in the Notes to the Financial Statements, since they are inherent to the planned duration of operations (several decades). The main reasons are as follows:

- inadequate knowledge of the initial state:
  . detailed knowledge of the physical condition of some older facilities sometimes requires supplementing with radiological inventory and characterisation studies, which will only become possible at future stages of dismantling. Dismantling scenarios need to be adapted as and when knowledge of the facilities and associated sites progresses (in particular the level of soil remediation required);
- safety requirements and changes in the regulations:
  . safety, security and environmental protection requirements established by the government and the safety authorities may change, impacting work schedules and operations;
- changes in the definition of final state:
  . the targeted final state of facilities and sites to be dismantled may change in line with requirements set by government and the safety authorities;
- changes in the dates at which waste disposal facilities become available, and in disposal costs or waste conditioning specifications:
  . the estimated future costs relating to the deep geological disposal of high- and intermediate-level waste is currently based on the French government's costing of €25 billion (under 2011 economic conditions) made in mid-January 2016, and based on preliminary designs. This estimate includes a provision for risks and contingencies. Additional costings are currently being drawn up with regard to transport and logistics. Risks and uncertainties remain concerning the acceptability of packages, how the cost will be split between producers, and any potential future changes in the cost estimates

and work schedule;
. end-of-cycle operations at nuclear facilities require ongoing coordination and negotiation between the various waste producers, in order to coordinate their individual scenarios with the financial needs, transport capabilities and the physical capacity of the waste disposal facilities to receive waste packages. The CEA may have to revise its own scenarios due to such constraints;
. the scope and conditions of future waste management by Andra at its LLW-LL and Cigeo disposal facilities.

- financial resource planning:
. the schedule for dismantling operations entails disbursement schedules that are included in the financial scenarios;
. a mid-to-long-term (10-year) plan established in late 2017, which is consistent with budgeted financial flows from the State up to 2022, has reduced this risk, and post-2022 scenarios are currently under examination with the State. However, the decisions made in this context have led to scheduling delays for some lower-priority projects, leading to additional fixed costs for which provision has had to be made;

- technical issues not covered by contingency provisions, including:
. potential developments in waste processing and waste and facility clean-up technologies could affect the final cost of end-of-cycle operations;
. since project schedules are often closely linked, any delay on one project could cause delays and additional costs for all end-of-cycle operations. For example, if waste disposal facilities are unavailable at the planned dates, this would have a significant impact on end-of-cycle scenarios, particularly on the waste recovery and conditioning programmes;
. early decommissioning of certain facilities or projects could imply clean-up and dismantling work much earlier than planned in the initial scenarios.

g) Outlook

Following the letter of 25 July 2015 from the safety authorities, a joint review was performed to redefine the priorities and general strategy for clean-up and dismantling operations.
On 16 December 2016, the CEA sent the French Nuclear Safety Authority (ASN) its general proposal, comprising:

- the decommissioning strategy for the next fifteen years, with clear priorities and consolidated, binding decommissioning programmes;
- an updated strategy for managing the radioactive materials and waste held by the CEA.
- an updated presentation of the resources the CEA is devoting to these projects and how they are being organised;
- a review of the annual funding required over the next 15 years for decommissioning and waste management operations, taking into account the updated decommissioning strategy and development of the Cigeo project;
- the safety authorities' examination of the decommissioning strategy priorities ended in June 2018 with meetings of the Advisory Committee and of the Laboratory, Plant and Waste Management Safety Commission (CSLUD, a group of experts that supports ASN and the DSND). The commitments undertaken by the CEA (in a letter sent to the authorities dated 28 July 2018) and the recommendations made by the safety authorities (follow-up letter, the final version of which should be received sometime in 2019) do not affect the decommissioning, waste recovery and conditioning priorities set out by the CEA.

In 2019, the safety authorities are expected to grant an operating licence for Spiral 2 to the large-scale heavy ion accelerator (GANIL). The provision for dismantling will be revised as a result of this, to take account of the impact of the new scope of the GANIL facility and the 30-year extension to the lifetime of the joint venture.

l) Tax and social security payables

The commitments of the CEA towards its staff in respect of paid holiday due but not yet taken, and paid holiday accrued but not yet due, have been entered in the accounts as from the 2006 financial year.
In 2012, the CEA extended this to include rights to leave registered by the staff in time-savings accounts (CET).

B - COMMENTS ON THE ACCOUNTS

Note 3 – Operating income

Operating income represents research, work and services invoiced by the CEA to third parties in connection with its programmes or the provision of services.

Note 4 - Budgeted operating income

This entry corresponds to the balance of the State subsidy for the financial year allocated to finance operating expenditure for the year.

Note 5 – Expenditure for the financial year

Expenditure during the financial year breaks down as follows:

	2018	2017
Consumption of goods in inventory	**12**	**97**
Sub-contracting purchases	**687**	**709**
Purchases of non-inventory materials and supplies	**346**	**332**
External services:		
• Maintenance and repair	319	306
• General sub-contracting	316	305
• Travel – Work trips	51	52
• Payments to intermediaries and fees	85	85
• Temporary and seconded staff	33	34
• Transport of property and staff	27	26
• Internships	17	17
• General and technical documentation	7	6
• Telecommunications – Postal charges	5	6
• Leasing	35	36
• Other expenditure	85	83
TOTAL	**2,025**	**2,095**

(in millions of euros)

Note 6 - Taxes, duties and similar payments

Taxes, duties and similar payments break down as follows:

	2018	2017
Non-recoverable VAT on goods and services	54	52
Payroll taxes	59	60
Tax on basic nuclear installations (INBs)	57	58
Other taxes	52	53
TOTAL	222	223

(in millions of €)

Note 7 – Staff costs

Staff costs break down as follows:

	2018	2017
Wages and salaries	1,038	1,043
Social security contributions	448	465
TOTAL	1,486	1,508

(in millions of €)

Note 8 - Allocations and write-back of operating depreciations and provisions

Allocations and write-back of depreciations and reserves break down as follows:

	2018	2017
Depreciation		
• Allocations	- 493	- 456
• Write-backs	0	-
Provisions for the impairment of assets		
• Allocations	- 20	- 23
• Write-backs	23	24
Provision for liabilities and charges		
• Allocations	- 25	- 13
• Write-backs	755	781
TOTAL	240	313

(in millions of €)

Allocation to depreciations concerns intangible and tangible assets (€493 million in 2018, up by €37 million). Write-backs to provisions for 2018 worth €778 million were mainly related to decommissioning nuclear facilities, waste treatment and processing fuel for which no further use is planned (€743 million).

Note 9 – Write-backs of equipment grants and contributions from third parties

This item corresponds to the deduction applied to "Equipment grants received from the State" and "Equipment grants received from third parties", depending on the lifetime or service life of the assets financed.

Write-backs for 2018 (€491 million) were mainly used to finance the allocations for depreciation recorded for the year on tangible and intangible assets (€493 million) after taking into account the write-back of provisions for impairment of fixed assets.

Note 10 - Share of the net result from joint operations

N/A for 2018.

Note 11 - Net financial income (or loss)

Net financial loss of -€44 million was recorded in 2018, compared to net loss of -€11 million in 2017. This breaks down as follows:

	2018	2017
Dividends	7	2
Investment income and interest on receivables	9	3
Revaluation of "Provisions for decommissioning"	987	476
Write-backs of provisions	4	241
Other financial income	1	2
Write-back of provisions for loss in value of long-term securities	25	9
FINANCIAL INCOME	1,033	733
Interest on borrowings and debts	45	260
Net loss on disposal of investment securities	-	-
Allocations to provisions	1,031	484
Other financial expenses	1	
FINANCIAL EXPENSES	1,077	744

(in millions of euros)

Allocations to provisions in 2018 (€1,031 million) mainly break down as follows:

- €675 million to cover the impact of accretion concerning provisions for end-of-cycle operations (inflation and accretion),
- €320 million to cover the impact of the change in the assumed discount rate, from 4.10% to 3.97%, on provisions for end-of-cycle operations (discounting),
- the provision for loss on FT1CI shares to the Special reserves (€25 million).

Interest and related expenses (€45 million in 2018) mainly includes financial expenses related to reimbursement of the Orano debt (€43 million) and expenses on the disposal of investment securities (€1 million). The significant loss compared to 2017 (-€214 million) is mainly due to the financial expenses resulting from variations in the payment schedules of provisions for end-of-cycle operations recorded as on 31/12/2017 (-€237 million).

Accretion regarding the claim on the State corresponds to accretion concerning provisions for decommissioning within the scope of the State – CEA Framework Agreement, and the impact of the change in the discount rate.

Write-back of provisions corresponds to the write-back of provisions for potential loss on investment securities held by the CEA and the write-back to provisions for loss on FT1CI shares.

Note 12 - Extraordinary income or loss

Net extraordinary loss was -€330 million in 2018, broken down as follows:

	2018	2017
Write-backs on equipment grants received from the State	81	42
Proceeds from the disposal of asset items	274	648
Write-backs to provisions and transfers of charges	8	14
Other extraordinary income	7	3
EXTRAORDINARY INCOME	370	707
Management operations	349	244
Retirement of fixed assets	351	914
Allocations to depreciation and provisions	-	-
Other extraordinary expenditure	-	1
EXTRAORDINARY EXPENDITURE	700	1,159

(in millions of €)

Extraordinary income for the financial year 2018 breaks down as follows:

- proceeds from the disposal of asset items (€274 million),
- write-backs on equipment grants received from the State corresponding to the net book value of asset items sold or otherwise retired during the financial year (€81million).

Extraordinary expenditure for the financial year 2018 breaks down as follows:

- extraordinary expenditure on management operations worth €349 million (€244 million in 2017), mainly including €341 million for the write-off of claims receivable from the State;
- the net book value of assets sold or retired during the financial year, worth €351 million (€914 million in 2017), including €270 million for disposal of shares in Orano SA.

Note 13 - Intangible and tangible assets

Movements in intangible and tangible assets, together with the corresponding depreciations and provisions, were as follows:

GROSS VALUE	Balance as on 31.12.2017	Acquisitions and production 2018	Retirements 2018	Other transactions 2018[1]	Balance as on 31.12.2018
Intangible assets	325	2	7	10	330
Land	197	4	1	8	208
Buildings	2,971	8	1	80	3,058
Specific installations and other tangible assets	8,147	29	156	1,382	9,402
Fixed assets under construction and advances	3,712	819	72	- 1,470	2,989
TOTAL	15,352	862	237	10	15,987

[1] *Allocation of work-in-process to finished fixed assets, adjustments and transfers between accounts.*

(in millions of €)

DEPRECIATIONS/PROVISIONS	Balance as on 31.12.2017	Allocations 2018	Write-backs and retirements 2018	Other transactions 2018	Balance as on 31.12.2018
Intangible assets	254	18	7	-	265
Land	122	6	1	-	127
Buildings	2,013	112	2	-	2,123
Specific installations and other tangible assets	5,229	364	160	-	5,433
TOTAL	7,618	500	170	-	7,948

(in millions of €)

Note 14 – Dismantling assets - third parties

For the sum of €5 million as on 31 December 2018, this item represents future funding by the IRSN expected for its share of the Cabri facility clean-up costs.

Note 15 - Financial assets

This breaks down as follows:

	31.12.2018	31.12.2017
Equity shares	190	522
Receivables from equity interests	15	14
Loans	4	4
Other long-term investments	3	3
TOTAL	212	543

(in millions of €)

With a net value of €190 million as on 31 December 2018, there was a €306 million drop in equity securities as compared with 2017.
This €306 million drop is related to the disposal of share assets in Orano SA and FT1CI as a result of their reassignment to the State and Bpifrance, for €270 million and €36 million respectively, enabling early repayment by the CEA of the sum owed (€541 million, excl. VAT. With regard to the FT1CI shares, the sum of €36 million is the net book value of the shares sold (gross value of €61 million and a provision for impairment fo €25 million).
The investments shown as assets at year closing 2018 mainly relate to holdings in Technicatome and CEA Investissement.
Receivables from equity interests and joint ventures came to €15 million at year-end 2018 compared to €14 million at year-end 2017, i.e. up by €1 million. This variation is due to the increase in the receivables owed by the Ganil joint venture.

Note 16 - nventory and work-in-progress

This breaks down as follows:

	31.12.2018	31.12.2017
Raw materials and other supplies	3,416	3,384
Work-in-progress and goods-in-process	1,725	1,643
Semi-finished and finished products	1,182	1,233
TOTAL	6,323	6,260

(in millions of €)

Note 17 - Payment schedule for receivables

At year closing, the situation was as follows:

	Payable within 1 year	Payable later than 1 year
Receivables on non-current assets	3	19
Receivables on current assets	2,071	16,717
TOTAL	2,074	16,736

(in millions of €)

Note 18 - Claims on the State

The method for valuing the claim on the State was established with the signature of a Framework Agreement between the State and CEA, and its amendment in late 2011, concerning the financing of CEA's long-term nuclear costs, ensuring the liquidity of the claim and guaranteeing coverage of provisions for end-of-cycle obligations in accordance with the requirements of the Law of 26 July 2006.

In 2018, the claim on the State was reduced by €740 million, the value of the annual State subsidy allocated to finance clean-up and dismantling operations (from Programme 190 of the CEA's general budget).

Also, early repayment in 2018 of the CEA's debt owed to Orano Cycle was financed by:

- payment of an additional grant of €100 million (from CAS PFE Programme 732), credited to the claim on the State;
- a write-off of receivables worth €341 million, representing the CEA's use of its own equity (shares in Orano and FT1CI) to repay debts initially covered by the clam on the State.

Note 19 - Miscellaneous receivables

"Miscellaneous receivables" decreased by €19 million, from €753 million at the end of 2017, to a net amount of €734 million at year-end 2018, mainly due to:

- grants to be received from third parties, €181 million in 2018, up by €33 million from €214 at year end 2017,
- a change in "Grants to be received from European funding" (+€30 million),
- a change in "Invoices pending" (-€11 million),
- a change in payment credits to be received from the State (-€5 million),
- a change in advances on current accounts (-€3 million).

Note 20 - Cash balances and investment securities

This entry shows the position of all bank accounts and investments, giving a gross value of €285 million as on 31 December 2007. Bank accounts with a credit balance are entered under "Financial debt".

This breaks down as follows:

	31.12.2018	31.12.2017
Liquid assets and investments allocated to current activities	15	199
Liquid assets allocated to the national loan	72	184
Liquid assets and investments committed to end-of-cycle operations	198	191
TOTAL	285	574

(in millions of €)

The portfolio to cover end-of-cycle operations breaks down as follows:

	31.12.2018	31.12.2017
At market value:		
• Stocks and shares funds	85	83
• Bond and cash funds	113	108
TOTAL	198	191
By geographical origin:		
• Euro zone	165	150
• World	33	41
• Other	-	-
TOTAL	198	191

(in millions of €)

PURPOSE OF THE DEDICATED PORTFOLIO

There are three Dedicated Funds: (i) the Fund for facilities commissioned before 31 December 2009, merging the Dedicated Civil Fund and the Dedicated Defence Fund, since 2018, bearing in mind the sole source of funding via Programme 190 Action 15, governed by the State-CEA Framework Agreement, and (ii + iii) since 1 January 2010, the New Civil Facilities Fund and the New Defence Facilities Fund, which are managed separately.
The Dedicated Civil Fund and Dedicated Defence Fund were originally formed in line with the planned expenditure schedule, which is largely spread over a period up to 2040 and beyond, and the corresponding portfolios were initially managed with a long-term approach. Due to a lack of sufficient payments into the funds, the investment terms were shortened with the imminent drying-up of the two former Funds, in 2011 (Defence) and 2012 (Civil) respectively. These portfolios are now only made up of venture capital unit funds taken out at the start which are still active, and cash funds used to cover decommissioning expenses after annual grants have been paid out.
The New Civil Facilities and New Defence Facilities portfolios are invested in unit trusts and other similar funds, the management of which is outsourced. On 31 December 2018, they were made up of equity (51%) funds, bond funds (48%), and money market funds (1%).
These portfolios are dedicated to expenditure that will only be made several decades after the facilities are commissioned (from 2010) and are managed under a very long-term approach with a strategic investment allocation (55% shares / 45% interest-bearing instruments), with room to manoeuvre of up to 20% in shares, in order to adapt to changing market contexts.
The three dedicated Funds are valued at year-end on the basis of the net asset value (NAV) as on 31/12 of the financial year for each investment line in the portfolio.

Note 21 - Special reserve

The "Special Reserve" breaks down as follows:

	Amount as on 31.12.2017	Allocation 2018	Write-back 2018	Amount as on 31.12.2018
Special reserves received from the State	7,707	101	-	7,808
Equipment grants received from the State	6,562	687	511	6,738

(in millions of €)

Note 22 - Accumulated balance of the financial years

The accumulated balance of the financial years, after allocation of the 2018 balance (down €371 million), comes to -€1,315 million. This breaks down as follows:

- General budget...- 322
- Civil fund...- 995 [(1)]
- New Civil facilities 11
- New Defence facilities...- 14
- Supplementary budgets 1
- ITER...2
- DSND 2
- DDCG.. -
- AFNI .... -
- I2EN .... -
- IRT .... -

TOTAL ....**- 1,315**

(1) After clearing Assets/Liabilities accruals

The difference between 2017 and 2018 breaks down as follows:

	Situation as on 31.12.2017	After clearing Assets/Liabilities accruals	2018 Balance	Situation as on 31.12.2018
General Budget	- 343	-	21	- 322
Civil fund	- 730	54	- 391	- 1,067
New Civil facilities fund	11	-	-	11
Defence fund	72	-	-	72
New Defence facilities fund	- 12	-	- 2	- 14
Supplementary budgets	1	-	-	1
ITER	1	-	-	1
DSND	1	-	1	2
DDCG	-	-	-	-
AFNI	-	-	-	-
I2EN	1	-	-	1
TOTAL	**- 998**	**54**	**- 371**	**- 1,315**

(in millions of €)

This negative balance is mainly due to management of the dedicated funds under the Framework Agreement, which initially produced a financial imbalance when they were set up.

This situation is not expected to jeopardise the future of the CEA as a going concern.

Note 23 - Provision for liabilities and charges

Provision for liabilities and charges underwent the following changes during the financial year:

	Amount as on 31.12.2017	Allocations 2018	Write-backs 2018	Amount as on 31.12.2018
Provision for dismantling and processing of waste and fuel for which no further use is planned	16,429	1,040 (1)	742	16,727
Dismantling provision allocated to the financing of facilities	21	-	1	20
Provision for disputes	39	17	10	46
Provision for CIGEO adjustment	16	-	-	16
Provision for normal waste treatment	24	1	1	24
Provision for retirement	30	-	4	26
Provision for service medals	7	-	-	7
Provision for recovering sources	-	-	-	-
Other	1	1	1	1
TOTAL	16,567	1,059	759	16,867

(1) Transactions affecting the "Claims on State" entry: €43 million

(in millions of €)

In the provisions for liabilities and charges, provisions relating to dismantling and processing of waste and fuel for which no future use is planned came to the sum of €16,743 million at the end of 2018, i.e. 99% of the total amount.

	Total	Civil and CEA funds	New Civil facilities fund	New Defence facilities fund	Excl. State/ third party funds
Situation as on 31.12.2017	16,445	16,267	24	73	81
Impact of inflation and accretion	675	666	1	3	5
Impact of changes in forecast rates	320	311	1	5	3
Change in the VAT flat rate tax coefficient	36	-	-	-	36
2018 works	- 741	- 737	- 4	-	-
Changes in estimates and payment schedules	8	49	-	5	- 47
Situation as on 31.12.2018	16,743	16,556	22	86	78

(in millions of €)

As on 31 December 2018, application of a discount rate 0.5% higher or lower than the rate used would have changed the value of the provisions for end-of-cycle operations by -€1,158 million or +€1,382 million respectively, resulting in the values of €15,569 million and €18,109 million respectively for all provisions (inside and outside the scope of the law).

As on 31 December 2018 and 2017, the provisions for the dismantling of facilities, waste treatment and processing of fuel for which no future use is planned, within the scope of the Decree of 23 February 2007 on securing funding to cover nuclear costs, break down as follows:

	Gross value		Discounted value	
	31.12.2017	31.12.2018	31.12.2017	31.12.2018
COST CATEGORY	Total Cost	Total Cost	Total Cost	Total Cost
1. DISMANTLING COSTS				
1.1 to 1.4 Facilities where the CEA is the nuclear operator	10,913	9,734	7,785	7,061
1.5. Third-party nuclear operators	287	180	241	151
SUB-TOTAL	11,200	9,914	8,026	7,212
2. FUEL MANAGEMENT COSTS				
2.1 Fuel that can be recycled in industrial facilities which already exist or are under construction	1,214	1,157	594	558
2.2 Other fuel	249	197	213	170
SUB-TOTAL	1,462	1,354	808	728
3. COST OF RECOVERY AND CONDITIONING OF LEGACY WASTE				
3.1 Operations to recover and condition waste stored at CEA facilities	5,320	4,453	3,582	3,132
SUB-TOTAL	5,320	4,453	3,582	3,132
4. MANAGEMENT OF RADIOACTIVE WASTE PACKAGE MANAGEMENT COSTS				
4.1 Waste package management by the CEA	2,075	3,677	1,435	2,676
4.2 Long-term management of waste packages	5,466	5,988	2,162	2,576
SUB-TOTAL	7,540	9,665	3,596	5,252
5. POST-CLOSURE MONITORING COSTS				
5.1 Post-closure monitoring costs	588	559	79	79
SUB-TOTAL	588	559	79	79
TOTAL PROVISIONS WITHIN SCOPE OF THE LAW EXCLUDING NON-DEDUCTIBLE VAT CHARGES	26,111	25,945	16,090	16,405
Non-deductible vat within scope of the law	149	151	79	77
TOTAL PROVISIONS WITHIN SCOPE OF THE LAW OF 28 JUNE 2006	26,260	26,097	16,170	16,482
Provisions for costs outside scope of the law (ICPE, etc.)	328	304	258	244
Non-deductible vat within / outside scope of the law	2	2	2	1
TOTAL PROVISIONS WITHIN / OUTSIDE SCOPE OF THE LAW	330	330	260	260
TOTAL PROVISIONS WITHIN / OUTSIDE SCOPE OF THE LAW	26,439	26,249	16,348	16,649
Non-deductible vat within / outside scope of the law	151	153	81	78
TOTAL PROVISIONS AS ON 31 DECEMBER	26,590	26,402	16,429	16,727

(in millions of €)

Note 24 - Schedule of debt repayables

At the end of the financial year the situation was as follows:

	Payable within 1 year	Payable later than 1 year
Financial debt	184	42
Debt to third parties	1,452	552
Accruals and charges	43	35

(in millions of €)

Note 25 - Cash provided by operations

EBITDA	- 728
Share of profits from joint operations	-
Financial charges payable	- 46
Collectable financial income	1,003
Extraordinary charges payable	- 350
Collectable extraordinary income	13
Budgeted operating income	- 2,062
Income tax	-
TOTAL	**- 2,170**

(in millions of €)

Note 26 -Off-balance sheet commitments as on 31 December 2018

COMMITMENTS RECEIVED	
Guarantees received from banks to cover retention payments to suppliers	**95**
Various bank guarantees	**2**
COMMITMENTS GIVEN	
Staff benefits [(1)]	**914**
Cost of pensions:	
• Retirement benefits	407
• Early retirement scheme	384
Pensioners' healthcare cover scheme	123
Foreign exchange hedging	**2**
Other commitments	**22**

(1) Of which provisioned commitments: €26.6 million

(in millions of €)

The commitments for staff benefits have been valued on a discounted basis at the rate of 3%, of which 1.50% for long-term inflation.
The discount rate applied to staff-related liabilities is defined under market conditions as at the end of November, based on government borrowing rates covering the same period as the staff-related liabilities in question. An average risk premium is then added, based on high-rated industrial and commercial corporate bonds.
The resulting rate is rounded up or down by 25 bp, taking into account the rate change trend. For the Euro zone, the resulting rate is 1.50%.

These commitments were down by €30 million on the financial year 2017 (€914 million at year-end 2018, as against €944 million at year-end 2017).
This fall is due to:
- pension rights acquired for the financial year/ benefits paid out .... - 25 M€
- the impact of the change in the discount rate ....- M€
- impact of population movements, scenario changes and experience variance .... - 5 M€

Note 27 - Information on disputes and contingent liabilities

Risks for which no provision has been made for want of a definite obligation and/or because it has not been possible to produce a reliable valuation of the amount of the liability are set out below. As such, they are considered as contingent liabilities in accordance with accounting regulations.
These risks concern disputes arising in connection with direct local taxation.
The CEA considers that it is not liable for CET, the Territorial Economic Contribution (formerly known as business tax) since its defence-related activities are directly linked to national defence, and its civil activities comply with for-profit/not-for-profit criteria established by jurisprudence.
The CEA also considers that it is not liable for property tax because some of its sites are either listed on the French government property register (TGPE) or because the land is earmarked for a general interest service and is not income-producing.
At the end of the 1990s, some local authorities disputed this reasoning, bringing a vicarious liability action against the tax authorities. Further to this action, the tax authorities issued tax rolls.
In each case, the CEA brought claims to obtain total exemption from these tax contributions. Previous court decisions confirmed that the CEA's position is justified, in the case of the Military Applications Division (DAM) centres and that of the civil centres. Decisions awarding full exemption from the former business tax and, since 2010, from corporate property tax, resulted in reimbursements and interest payments.
In 2009, an audit procedure was launched at several civil centres, covering business tax, property tax and the annual tax on offices in the Île-de-France region.
After two years of audits at all civil sites, the French national and international tax audit department (DVNI) sent the CEA an adjustment proposal to sectorise activities subject to local taxes, which had been identified at the Saclay and Grenoble sites. Under this method, income-generating buildings used in for-profit activities were deemed to be subject to property tax on developed property (TFPB) and/or corporate property tax (CFE) contributions.
In 2012, the DVNI initiated a new general audit of the CEA, resulting in further checks on DAM sites and an update of taxation requirements for the Saclay and Grenoble civil centres.
After three years of auditing, the DVNI identified income-generating buildings at the DAM's Île-de-France and Valduc sites, leading to property tax for developed property (TFPB) being levied on these buildings. However, it was confirmed that these sites were not subject to corporate property tax (CFE) contributions.
In a letter dated 6 December 2016, the DVNI informed the CEA that it would initiate a new audit in order to audit the tax bases resulting from the application of the principles defined following the 2012 audit.
The 2017 audit operations focused on the 2016 property tax and the 2014, 2015 and 2016 corporate property tax contributions. The following centres were audited: Saclay, Grenoble, DAM Île-de-France and Valduc.
On 4 December 2017, the DVNI sent the CEA four "type 751" information letters. For civil centres, the assessment was based on a different taxation method than that agreed following the 2012 audit. The DAM Île-de-France centre was deemed to be subject to property tax and corporate property tax contributions, unlike the Valduc site, which was deemed to be only subject to property tax. The CEA submitted its remarks to the tax authorities in four responses dated 20 December 2017.
Following the DVNI's notices, discussions between the CEA and the DVNI are still ongoing. A hierarchical review was held with the Head of Brigade on 16 October 2018 and a meeting with the Director of the DVNI will be held on 11 April 2019.
Pending a conclusion to these discussions, the provisions recorded as on 31/12/2017 and 31/12/2018 were calculated using the tax bases notified by the DVNI in the "type 751" information letters sent to the CEA on 4 December 2017 (CFE 2014 to 2016 and TFPB 2016) and on 12 November 2018 (TFPB 2017).

Note 28 - Other information

Situation concerning corporate income tax

The CEA's corporate income tax regime is subject to Article 207-1-9° of the French General Tax Code (introduced into the Code by the Research Programming Act of 18 April 2006). This Article exempts public research organisations from paying corporate income tax on income derived from public research activities.
The tax authorities have commented on this tax regime, most recently in Official Tax Bulletin BOI-IS-CHAMP-50-10-20170405 of 5 April 2017.
Since the 2006 financial year, in accordance with the activity sectorisation principle established by the tax authorities, the CEA's earnings from equity securities are now subject to corporate income tax.

Policy on insurance

The CEA's policy concerning insurance is built on a set of clear, consistent, and coordinated principles resulting from regular dialogue between the Insurance Department and the various operational and functional divisions.
This dialogue has led to a consensus on the purposes of the CEA's policy on insurance and its implementation procedures. These have been set out in a series of documents (memoranda and circulars) that together form an insurance charter that is distributed to those concerned at all levels of management to guide them in their management decisions and actions. Policy in this area is defined according to management level.
The general principles are proposed by the Insurance Department and approved by the CEA's Senior Management team. Specific principles are approved

by the Financial Division, the Human Resources and Industrial Relations Division, and the other divisions concerned.
The policy is implemented within a long-term perspective, based on a set of intentions and decisions that determine, coordinate and manage resources, and carry out actions to help achieve the policy's overarching objectives (e.g. site inspections to monitor the state of buildings and regulated facilities, and fire inspections).
The CEA's policy on insurance is implemented as part of a general risk management approach, which has become standard practice in all high-risk sectors. This entails identifying risks, managing insurance programmes designed to cover damages, and keeping management charts to monitor efficiency.
Wherever possible, to limit risks, the CEA transfers risks to contractors with which it does business. This applies only to risks relating to contractual liability.
Furthermore, in order to reduce the financial impact of certain possible events, the CEA has decided to transfer some of its risks to insurers. In addition to the preventive aspect of this approach, insurance has the financial advantage of converting the unpredictable costs of potential incidents that might compromise its budget into fixed operating expenses (payment of insurance premiums).
The CEA's decision to transfer the financial burden of cover for unpredictable risks to insurers reflects its desire to protect itself against the implications of damage to third parties and to safeguard its assets and employees.

a) Third-party liability insurance

1) Third party liability in the nuclear field

In light of the special regime governing third-party liability in the nuclear field, the CEA is required to take out coverage for financial liability, in accordance with the Paris Convention of 29 July 1960 on Third Party Liability in the Field of Nuclear Energy and the obligations under Articles L. 597-1 and following of the French Environmental Code. Following publication in France's Official Gazette of the Order dated 24 December 2015 granting the CEA the State Guarantee to cover third-party liability in the field of nuclear energy, the CEA is now covered by the State Guarantee.
The CEA also has insurance covering its liability as a holder and user of ionising radiation sources, and as a service provider, and for the transport of radioactive substances under its responsibility which are not covered by the Paris Convention.

2) Third-party liability in the conventional field

The CEA is covered by a third-party liability insurance programme that covers it against the financial consequences of any liability, pursuant to applicable law, for physical injury, material damage and intangible losses caused to third parties relating to actions committed in performing its activities, including contractual commitments.

3) Third-party liability relating to motor vehicles

To comply with motor vehicle third-party liability insurance obligations established by the Act of 27 February 1958, the CEA insures all the vehicles which it owns or leases on a long-term basis. Many of these vehicles are also covered by collision and comprehensive insurance.
In addition, to manage risks and to save money, the CEA has implemented a "retention" mechanism. The insurance policy covering the CEA's fleet of vehicles (whether owned or leased) generally applies beyond an annual "retention" deductible. This mechanism allows the CEA to retain part of the third-party liability and damage costs arising from accidents involving its vehicles. The insurer manages the amount paid for the "retention" insurance. It then uses this reserve amount primarily to pay out for claims under the same conditions as if the vehicles were fully insured, until the reserve has been used up. If the annual cost of claims remains below the amount of the reserve paid at the beginning of the financial year, the remaining balance is automatically reimbursed to the CEA. This system significantly reduces insurance tax as the retention mechanism is tax-exempt.

b) Insurance covering the CEA's assets

Given the extensive security and preventive measures in place at its centres, particularly in relation to nuclear safety requirements, the CEA has opted not to systematically insure all its equipment, buildings and facilities. Instead, it has insured some identified risks for partial coverage with insurers.
By retaining some or part of the risks when it considers insurance costs too high, it optimises management of the financial benefits of its insurance programmes for material damage.
The CEA's policy on insurance distinguishes between damage caused to its assets during construction of a structure, damage of any kind during operating, and damage resulting from decommissioning work.

1) Material damage caused during construction

The CEA takes out insurance to cover risks associated with construction or civil engineering works, whether or not the works concern nuclear activities. This cover gives the CEA the assurance that, in the event of an accident, it will quickly receive financial compensation. It has therefore decided to take out a Contractor's All Risks policy on behalf of all those participating in the work, if the construction operation exceeds the sum of €2 million.
This kind of policy covers accidental property damage affecting building work, civil engineering or process work during the construction period and up to acceptance. It also covers, as an option, damage caused to existing structures during renovation work, for example, or to any neighbouring buildings.
For operations costing over €2 million, to cover damage occurring after acceptance, CEA has insurance covering

structural property damage, as well as ten-year inherent defects insurance covering civil engineering structures.

2) Damage caused to assets during operating

The CEA has comprehensive industrial insurance covering all moveable and immovable assets (buildings, plant, machinery and equipment, including basic nuclear installations) which the CEA owns, leases, uses or holds under any arrangement whatsoever.
Under the clauses and conditions of this policy, material damage resulting from events such as fire, lightning, explosion, collapse, natural disaster, water damage, acts of terrorism and sabotage are covered, as well as, under certain conditions, nuclear damage resulting from a criticality accident, contamination or irradiation.
The Insurance Department organises fire and related risk prevention inspections of CEA facilities, which are conducted in liaison with its insurers. The purpose of these inspections is to identify the main potential risks and assess fire detection systems, particularly with regard to their compliance with current standards. Risk prevention engineers from the insurance companies issue recommendations for improving the state of facilities with respect to the identified risks.
The comprehensive industrial insurance also covers all clean-up and decommissioning operations carried out under the operating safety reference framework, prior to publication in the Official Gazette of the facility decommissioning decree for civil facilities, or an equivalent decree for military facilities.
The CEA's insurance programme also includes insurance policies specially designed to cover its plant, machinery and equipment.
This includes policies to cover nuclear and non-nuclear machinery breakage, all risks IT insurance (covering equipment owned, leased or rented by the CEA) and all risks transport insurance.

3) Material damage caused during decommissioning

The CEA has insurance to cover risks associated with decommissioning operations following publication in the Official Gazette of a facility decommissioning decree or a change to the safety reference framework.
It therefore has an all-risks insurance policy for decommissioning operations over €2 million, taken out on behalf of all those participating in the work, holding them harmless against any claims from the insurer. This guarantees the CEA rapid and comprehensive financing in the event of an incident.

c) Employee insurance

The CEA has taken out invalidity and death benefit insurance for its staff, with optional or compulsory participation.
As far as compulsory cover is concerned, the main purpose of the insurance taken out is to provide:
- a lump-sum payment to the beneficiary(or beneficiaries) in the event of an employee's death,
- an educational annuity for any dependent children,
- payment of an invalidity pension, payable to the employee in addition to Social Security benefits.

Coverage and assistance is also provided, including a lump-sum payment, in the event of personal injury resulting from accidents during assignments in France or abroad.
The CEA also offers optional schemes such as insurance for loans, death/invalidity insurance and insurance for pensioners and expatriates.

Note 29 - Staff numbers

No. of staff employed as on 31.12.2018:	
• managerial	10,516
• non-managerial	5,580
TOTAL	**16,096**

Note 30 – Events after closing of the accounts

None

C - INFORMATION ON SUBSIDIARIES AND HOLDINGS AS ON 31 DECEMBER 2018

COMPANY	Capital	Reserves [1] and balance brought forward before allocation of income before net income appropriation	Share of capital held (%)	Book value of shares held		Loans and advances granted by the company and not repaid	Guarantees and surety granted by the company	Sales in the last financial year excl. VAT	Net income (or loss) in the last financial year [2]	Dividends collected by the company during the financial year	Observations on provisions for impairment of receivables
				Gross	Net						
FRENCH SUBSIDIARIES (DETAILED INFORMATION)											
ORANO 1 Place Jean Miller Tour AREVA 92400 COURBEVOIE		-	pm	pm	pm	-	-			0	-
TECHNICATOME Route de Saint-Aubin 91190 VILLIERS LE BÂCLE	22.1	-	20	113.6	113.6	-	-	397.8 [2]	41.2 [2]	5.4	-
CO-COURTAGE NUCLÉAIRE (389518853) Le Ponant D 25 rue Leblanc 75015 PARIS	*ns*	-	90	*ns*	*ns*	-	-	-	-	0.3	-
CEA-INVESTISSEMENT [2] (423426899) Le Ponant D 25 rue Leblanc 75015 PARIS	72.2	- 8.0	100	72.2	72.2	-	-	[3]	[3]	-	-
FT1CI			0	0	0	-	-			1.2	-
2) FRENCH HOLDINGS (DETAILED INFORMATION)											
MINATEC [3] Hôtel du Département 7 rue Fantin Latour BP 1096 38022 GRENOBLE Cedex 1	6.9	4.3	22	1.5	1.5	-	-	[3]	[3]	[3]	-
SEML Route des Lasers [3] 20, rue de Suson 33830 BELIN BELIET	15.5	[3]	11.6	1.8	1.8	-	-	[3]	[3]	-	-
GIE III V LAB [2] Route de Nozay 91460 MARCOUSSIS	5	0	20	1	1	-	-	[3]	[3]	-	-

(in millions of euros)

[1] Including statutory provisions and investment subsidies
[2] Net income (loss) before approval of the 2018 accounts
[3] Data from the last financial year not available

Auditors' report on the annual financial statements

Financial year ending 31 December 2018

Dear Sir/Madam,

Opinion

In fulfilment of the task entrusted to us by the French Minister for Economy and Finance, we carried out the audit of the French Alternative Energies and Atomic Energy Commission's annual financial statements for the financial year ending on 31 December 2018, as appended to this report.

We hereby certify that, under French accounting standards and rules, the annual financial statements are a faithful and honest reflection of the income from the past financial year and the institution's financial position and assets at the end of this financial year.

Basis of the opinion

Reference framework for the audit

We conducted our audit in accordance with the professional standards applicable in France. We believe that the evidence we collected constitutes a sufficient and appropriate basis for our opinion. Our responsibilities under these standards are indicated in the section entitled "Auditors' responsibilities in auditing the annual financial statements" hereunder.

Independence

We conducted our audit in accordance with the applicable rules concerning independence, for the period from 1 January 2018 to the date of issuing our report. Furthermore, we have not provided any services prohibited by the Code of Ethics of the auditing profession.

Observations

Without prejudice to the opinion expressed above, we would draw your attention to the following points:

- Note 2.f "Accounting methods and principles – Claim on the State" in the Notes on Accounting Principles, which mention the accounting implications of the signature of the Framework Agreement and its Amendment 1 concerning the financing of long-term nuclear costs, by which the State agrees to ensure the general balance of the CEA's long-term nuclear costs.
- Paragraphs a) and f) of Note 2.k.2 "Accounting methods and principles – Provision for liabilities and charges – End-of-cycle commitments" in the Notes, which restate the key assumption adopted in drawing up the 2018 accounts, whereby the CEA's cash resources will coincide with the schedule of decommissioning operations, as currently planned.
- Paragraphs c) and f) of Note 2.k.2 "Provision for liabilities and charges – End-of-cycle commitments" of the accounting principles in the Notes, and the paragraph "Key events of the financial year 2018" in the Notes, which state the main sources of uncertainty and judgment inherent in assessing end-of-cycle costs, including costs related to long-term management of radioactive waste packages, the planned final state of facilities to be decommissioned and the physical and radiological characterisation of facilities to be decommissioned. Following the observations made by the CEA's supervisory authorities in their letter of December 2018, primarily regarding the final state of facilities, the CEA will incorporate the impact related to these uncertainties, which may be significant, in its accounts for 2019 and thereafter.
- Note 1 "General framework – Key events of the

financial year 2018", which specifies the uncertainty regarding financing related to repayment of the debt owed to ORANO Cycle.

Justification of our assessments

In accordance with the provisions of Articles L. 823-9 and R.823.7 of the French Commercial Code relating to the basis for our opinions, we would like to draw your attention to the following points, which, in our professional opinion, were the most important for the audit of the annual financial statements for the financial year.

• Accounting rules and methods

As part of our assessment of the accounting rules and principles applied by the CEA, we verified the relevance of the accounting principles used to present the CEA's activities and assets as accurately as possible

• End-of-cycle commitments

The provisions for decommissioning and waste recovery, an amount of €16,743 million on the balance sheet, were calculated in accordance with the accounting methods, valuation rules and principles described in Notes 2.k.2 "Accounting methods and principles – Provision for liabilities and charges – End-of-cycle commitments" in the Accounting Methods and Principles, and Note 23 "Provision for liabilities and charges - Commitments for end-of-cycle operations" in the Notes.

To offset these provisions, to cover liabilities, and according to the provisions set forth in the Framework Agreement with the State, the CEA recognises a Claim on the State, as stated in Note 2.k.2 a) "Accounting methods and principles – Provision for liabilities and charges – End-of-cycle commitments – Funding for decommissioning of nuclear facilities" in the Accounting Methods and Principles, and Note 18 "Claims on the State" in the Notes, this asset constitutes the claim that will be reimbursed by the State.

During our audit, we reviewed the estimated decommissioning liabilities and the share to be financed by the State, assessing whether the assumptions made were reasonable, and taking into account, in particular, the change in estimates and ongoing negotiations with the authorities.

• Financial fixed assets

Note 2.d "Financial assets" in the Accounting Methods and Principles in the Notes sets out the method used to value for equity securities. We have analysed the methods used by the CEA to ensure that the asset value of the securities on the balance sheet is at least equivalent to their net book value.

• Subsidies

Notes 2.i "Budget subsidy received from the State" and 2.j "Equipment grants received from the State and third parties" in the Accounting Methods and Principles in the Notes set out the accounting methods used for grants received from the State and its partners. During our audit, we verified that this method had been applied correctly and checked its presentation.

• Pension commitments

Note 2.l "Tax and social security payables" in the Accounting Methods and Principles and Note 26 "Off-balance sheet commitments" in the Notes set out the methods used to estimate pension commitments and the scenarios applied to calculate them. As part of out audit, we have verified that this method had been applied correctly and checked its presentation.

These evaluations are part of the audit of the annual financial statements, taken as a whole, and therefore have an impact on the opinion we expressed in the first part of this report. We will not express any opinion on any individual items in these annual financial statements taken separately.

• Specific checks

In accordance with the standards of professional practice applicable in France, we also carried out the specific checks required by law.

We do not have any particular observations to make regarding the faithfulness and consistency with the annual financial statements of the information contained in the Management Report and in the other documents regarding the financial position and annual financial statements

Responsibilities of Management and corporate governance regarding the annual financial statements

Management is responsible for drawing up faithful and reliable annual financial statements in accordance with French accounting rules and principles, and for implementing the internal controls required to draw up annual financial statements that are free of any significant anomalies, whether as a result of fraud or error.

When drawing up the annual financial statements, Management must assess the organisation's ability to continue operating, and where applicable, present information relevant to its continuing operation in the financial statements, and implement the accounting policy for a going concern, unless there are plans to liquidate or wind up the organisation.

The annual financial statements have been approved by the Executive Board.

Auditors' responsibilities in auditing the annual financial statements

The auditors' task is to issue a report on the annual financial statements. Our aim is to obtain reasonable assurance that the annual financial statements as a whole contain no significant anomalies. Reasonable assurance implies a high level of assurance. However, there is no guarantee that an audit conducted in accordance with professional standards can systematically identify every significant anomaly. Anomalies may arise as a result of fraud or error and are considered to be significant if it can reasonably be expected that individually or jointly, they could influence the economic decisions made by the users of the financial statements.

As stated in Article L.823-10-1 of the French Commercial Code, our work to certify the financial statements does not involve guaranteeing the viability of your organisation or the quality of its management.

When conducting an audit in compliance with the professional standards applicable in France, auditors exercise their professional discretion throughout the auditing process. Furthermore:

they identify and assess the risk that the annual financial statements may contain significant anomalies, whether as a result of fraud or error. They establish and implement auditing procedures to address these risks and gather evidence they deem sufficient and appropriate to form their opinion. The risk of failing to detect a significant anomaly resulting from fraud is higher than the risk of failing to detect a significant anomaly resulting from error, since fraud can involve collusion, falsification, voluntary omissions, false statements or the circumventing of internal controls;

- they familiarise themselves with the internal control processes relevant to the audit in order to establish appropriate auditing procedures under the circumstances at hand, and not to express an opinion on the effectiveness of internal control;

- they assess the appropriate nature of the accounting methods used and the reasonableness of accounting projections made by Management, and the relevant information provided in the annual financial statements;

- they assess whether Management's implementation of the accounting policy for a going concern is appropriate and, depending on the information gathered, whether there is significant uncertainty related to events or circumstances which could jeopardise the ability of the organisation to continue operating. Their assessment is based on information gathered up to the date of the report. Notwithstanding, subsequent events or circumstances may jeopardise the organisation as a going concern. If the auditors find that there is reason for significant uncertainty, they draw the reader's attention to the information provided in the annual financial statements regarding that uncertainty or, if the information is not provided or is irrelevant, they may either issue the certification with reservations or refuse certification;

- they assess the overall presentation of the annual financial statements and assess whether they reflect the underlying operations and events in such a way as to convey an accurate picture.

Signed in Paris-La Défense and Courbevoie, on 28 May 2019,

KPMG

Denis Marangé
Auditor

Laurent Genin
Auditor

MAZARS

Thierry Blanchetier
Auditor

9 CEA's centres in France

1 Headquarter

Civil research centres

2 Paris-Saclay
Fontenay-aux-Roses and Saclay sites

3 Grenoble

4 Marcoule

5 Cadarache

Centres for military applications

6 DAM Île-de-France

7 Le Ripault

8 Valduc

9 Cesta

10 Gramat

Regional technology-transfer platforms

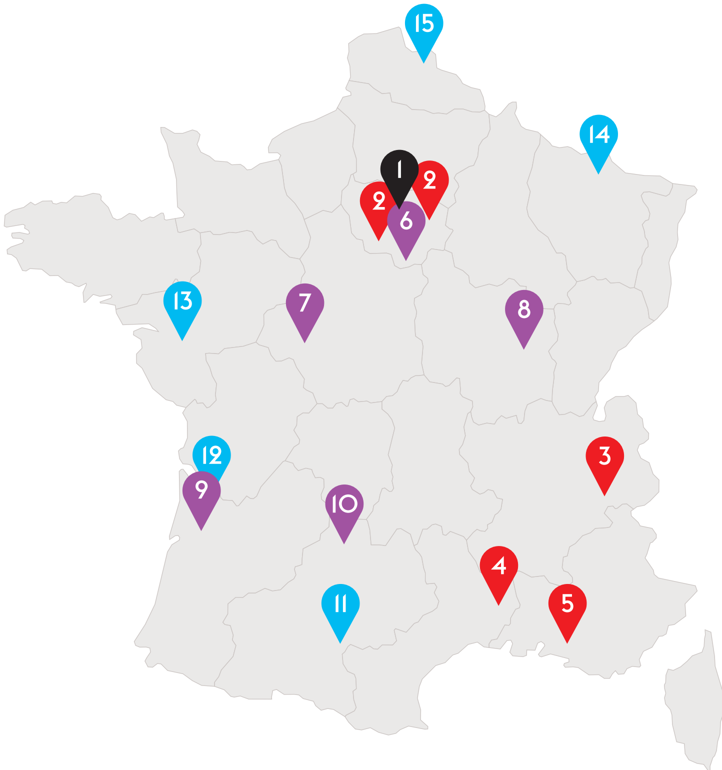
11 Toulouse

12 Bordeaux

13 Nantes

14 Metz

15 Lille



French atomic energy and alternative energy Commission
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www.cea.fr

Cover: From left to right and top to bottom: Grid for nuclear fuel rod spacing - Emulator for a chip with 48 cores in six interconnected clusters - Inside the Megajoule Laser experimental chamber - Electronic glucose sensor - Space satellite cryostat integration on prototype - Exterior view of solar panels. **Credits :** C. Dupont - L. Godart - D. Morel - MS - P. Stroppa / CEA.
Design and production: EFIL – efil.fr – Printed by Imprim'Vert printer on paper from sustainably managed forests - June 2019