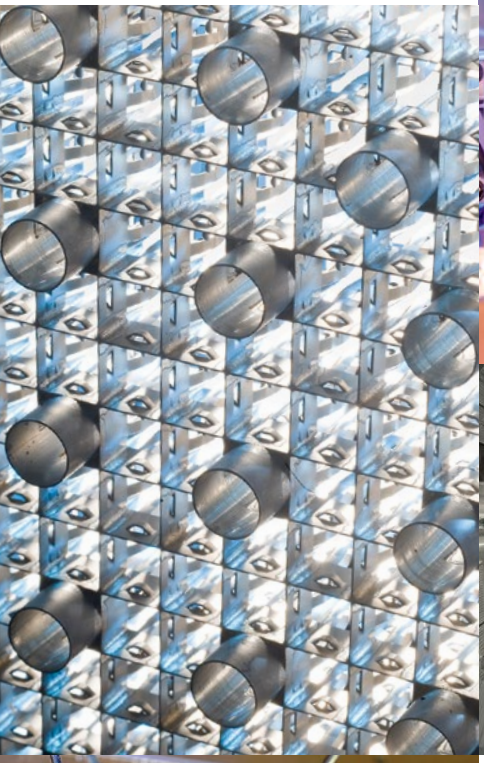
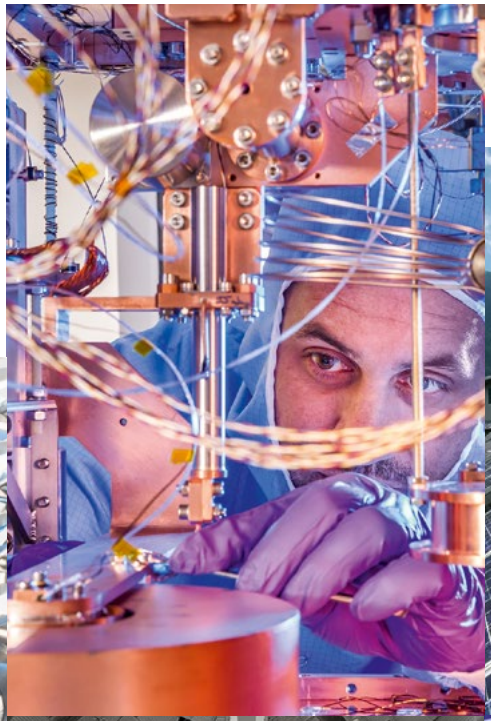
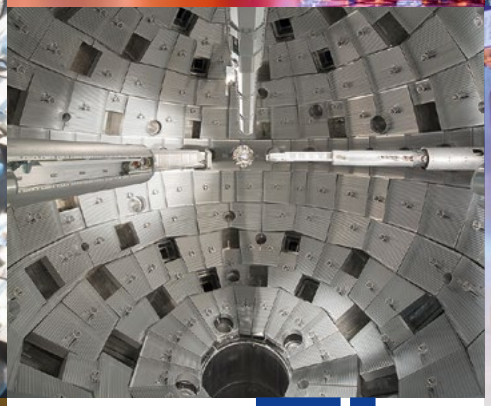
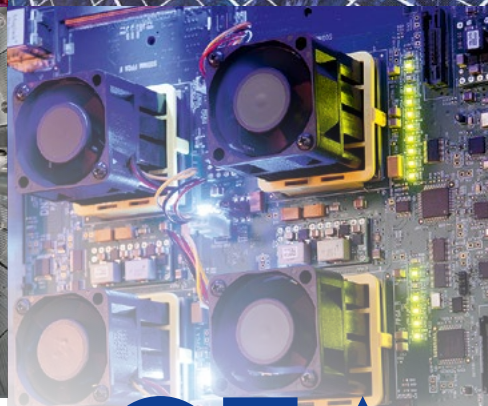
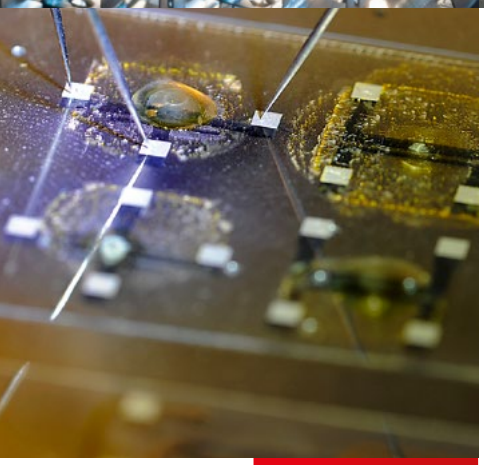










The CEA Financial report 2017

DE LA RECHERCHE À L'INDUSTRIE

cea

Contents

MANAGEMENT REPORT

ANNUAL FINANCIAL STATEMENTS

Management report

I. Implementation of the budget

The 2017 management accounts show a surplus of €126 million for the civil sector. This surplus is partly due to an extraordinary injection of €100 million in funding by the French government, in order to enable the CEA to make an early repayment of part of the outstanding capital on the debt owed to ORANO Cycle.
The 2017 management accounts show a surplus of €66 million for the defence sector.

	2016	2017	Variation 2017/2016 %
Civil sector			
Total funding	2,307	3,079	+ 33
Total expenditure	2,693	3,020	+ 12
Balance of civil / defence flows	- 50	- 67	+ 36
Total expenditure on civil programmes	2,644	2,953	+ 12
MANAGEMENT ACCOUNTS RESULT (CIVIL SECTOR)	- 336	126	ns
Defence sector			
Total funding	1,830	1,927	+ 5
Total expenditure	1,699	1,793	+ 6
Balance of civil / defence flows	50	67	+ 36
Total expenditure on defence programmes	1,749	1,861	+ 6
MANAGEMENT ACCOUNTS RESULT (DEFENCE SECTOR)	82	66	*ns*

(in millions of euros)

The main events of 2017 included:

- completion of civil works and start of trial plant assembly of the Jules Horowitz Reactor block;
- installation of a giant 130-tonne magnet, Iseult, designed by Alstom GE, which will be the key component of the world's most powerful MRI scanner, producing an 11.7-tesla magnetic field;
- launch of the Energy Observer, the first ever autonomous hydrogen-powered and CO_2- and particle-emission free boat, whose power systems were designed by the CEA as energy architect;
- assembly of the Tera 1000-2 machine with a computing speed of 25 petaflops, built by ATOS/BULL in partnership with the CEA;
- recognition of the CEA as the leading patent-filing research body in France;
- establishment of the CEA Paris-Saclay Centre, a merger of the Saclay and Fontenay-aux-Roses centres.

2. Funding

CEA Funding was up by 21% compared with 2016. Approximately 30% of this funding growth is due to reassignment of the CEA's residual shareholding in AREVA SA (+€270 million) to the French State.
The civil subsidy accounts for 39% of civil funding and the defence subsidy for 84% of defence funding.
€113 million in subsidies were paid to the CEA under the Investment for the Future Programme for the Jules Horowitz Reactor (JHR), the Astrid Gen IV technology demonstrator and the high-performance computer.

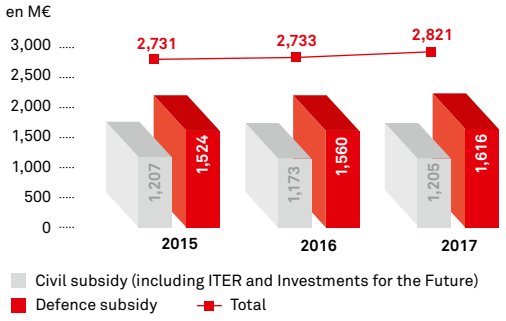
	2016		2017		Variation 2017/2016
	millions of €	%	millions of €	%	%
Civil sector					
Subsidies excluding Investment for the Future and ITER	999	43	987	32	- 1
ITER subsidy	90	4	105	3	+ 17
Investment for the Future subsidy	84	4	113	4	+ 34
External income	852	37	1,127	37	+ 32
Fund for civil and defence clean-up operations	207	9	663	22	*ns*
CSA* funding	5	0	4	0	- 10
Carried over from previous year	70	3	80	3	+ 14
TOTAL CIVIL	2,307	100	3,079	100	+ 33
Defence sector					
Subsidy	1,560	85	1,616	84	+ 4
External income	57	3	60	3	+ 6
Fund for defence clean-up operations	172	9	169	9	- 1
Carried over from previous year	42	2	82	4	*ns*
TOTAL DEFENCE	1,830	100	1,927	100	+ 5

* CSA: Complementary Safety Assessments

a. Changes in State subsidies

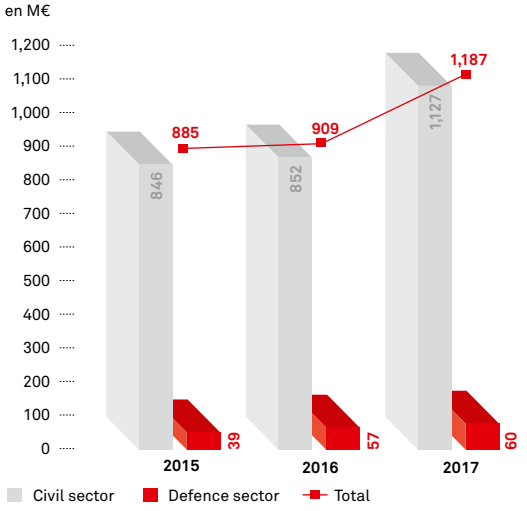
Civil sector:
The €32 million increase in civil subsidies between 2016 and 2017 breaks down as follows:
- a €12 million decrease in State subsidies excluding Investment for the Future and ITER,
- a €15 million increase in the ITER subsidy,
- a €29 million increase in Investment for the Future subsidies (+€42 million for JHR, -€4 million for the Astrid Gen IV technology demonstrator and -€9 million for the high-performance computer).

Defence sector:
The 4% increase in subsidies from 2016 to 2017 is in line with the stages of progress of the various projects.



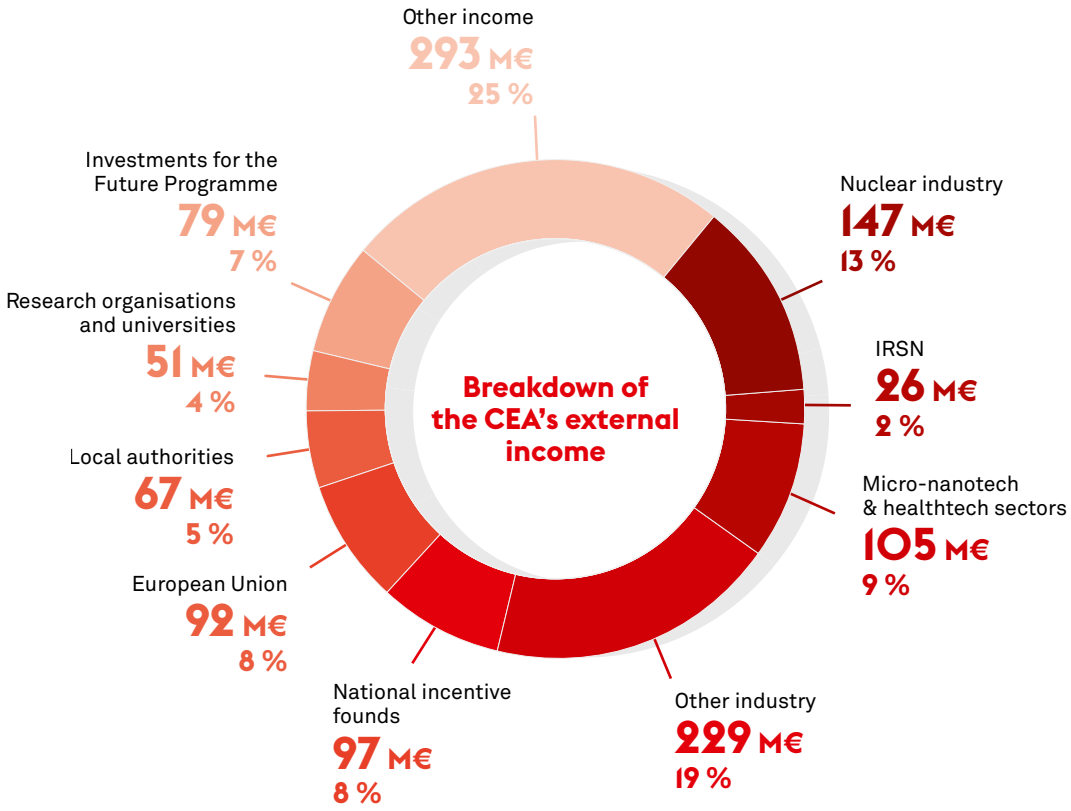
b. Changes in external income by sector

External income saw a 30.5% increase between 2016 and 2017, with a 32.2% rise for the civil sector and a 5.9% increase for defence.
The increased income in the civil sector is chiefly the result of €270.2 million in extraordinary income from exercising an option to reassign the CEA's residual shareholding in AREVA SA to the French State (after repayment of a cash advance). This enabled the CEA to acquire a stake in ORANO for an equivalent value (neutral operation in terms of the management accounts).



c. External income by partner

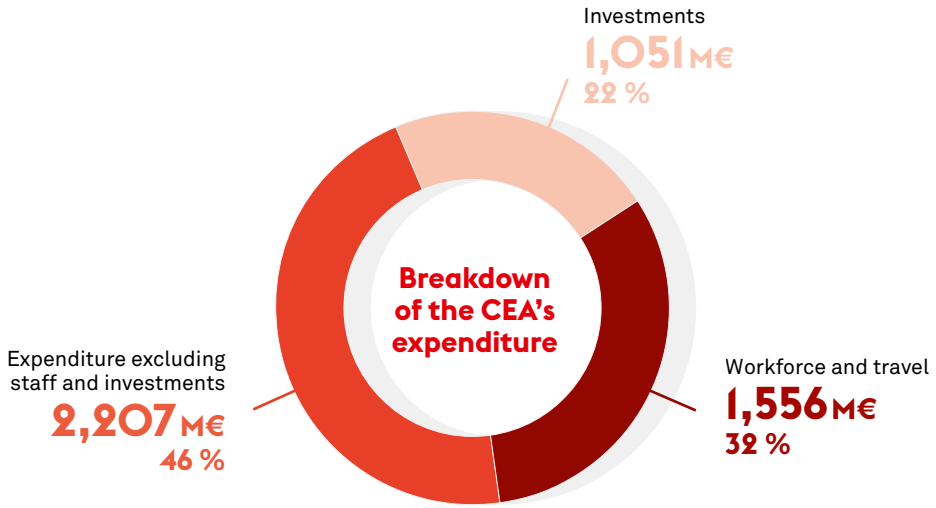
43% of external income comes from industrial partners and 57% from institutional partners.



3. Expenditure

The expenditure in 2017 represents a 10% increase over 2016 across the CEA as a whole. Expenditure increased by 12% in the civil sector and 6% in the defence sector. This increase in chiefly related to the acquisition of holdings in ORANO (€270 million), which was achieved in return for the reassignment of the residual CEA shareholding in AREVA SA to the French State.

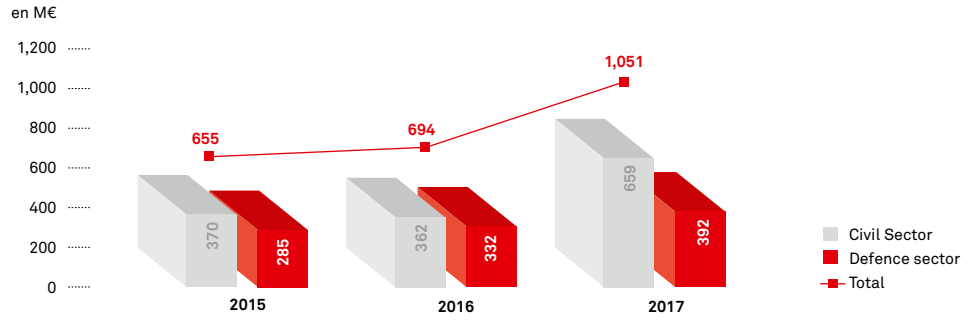
	2016		2017		Évolution 2017/2016
	millions of €	%	millions of €	%	%
Civil sector					
Payroll and travel expenses	1,134	43	1,142	39	+ 1
Expenditure excl. staffing and investments	1,198	45	1,219	41	+ 2
Investments	362	14	659	22	+ 82
Balance of civil – defence flows	- 50	- 2	- 67	- 2	+ 36
TOTAL CIVIL	2,644	100	2,953	100	+ 12
Defence sector					
Payroll and travel expenses	407	23	415	22	+ 2
Expenditure excl. staffing and investments	960	55	987	53	+ 3
Investments	332	19	392	21	+ 18
Balance of civil – defence flows	50	3	67	4	+ 36
TOTAL DEFENCE	1,749	100	1,861	100	+ 6



The structure of 2017 expenditure shows an increase in investments compared to 2016, related to the acquisition of a shareholding in ORANO (€270 million), which was achieved in return for the reassignment of the residual CEA shareholding in AREVA SA to the French State.

Investments

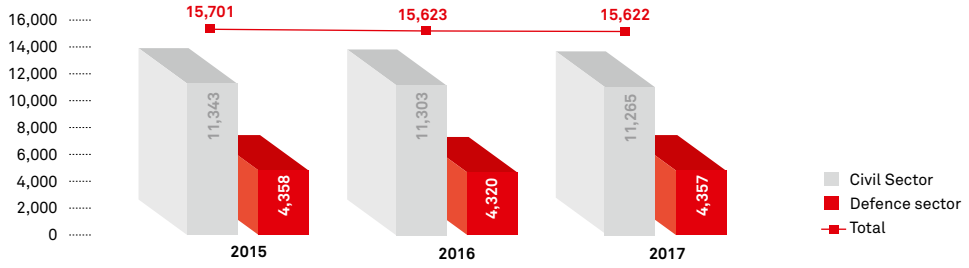
The increase in investments compared to 2016 is primarily related to the acquisition of holdings in ORANO (€270 million), which was achieved in return for the reassignment of the residual CEA shareholding in AREVA SA to the French State.



4. Staff numbers

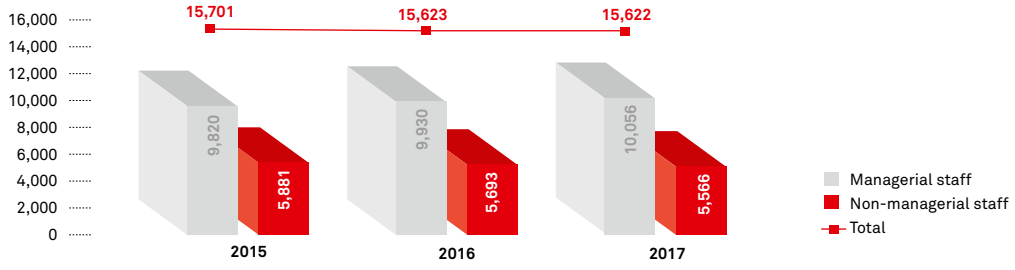
a. Changes in staff numbers by sector

In 2017, the CEA had a workforce of 15,622 FTE on permanent employment contracts, with 11,265 in the civil sector and 4,357 in the defence sector. These staff numbers are near-stable compared with 2016.
In the civil sector, staff numbers have decreased by 0.3% compared with 2016, particularly in support roles and on programmes related to the "nuclear power" and "foundations for basic research" missions.
In the defence sector, staff numbers increased by 0.8% compared with 2016, after several years of dropping numbers.

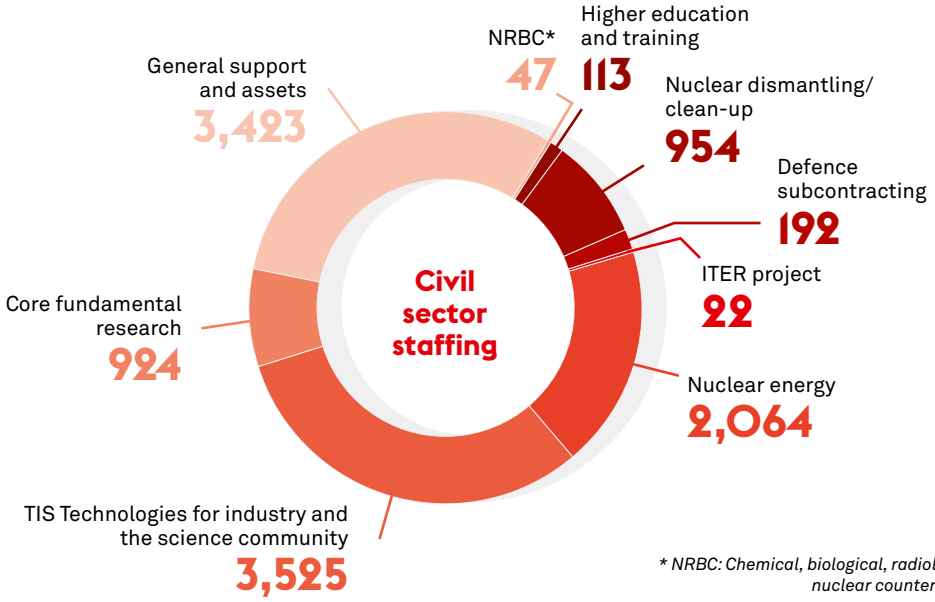


b. Changes in staff numbers by status

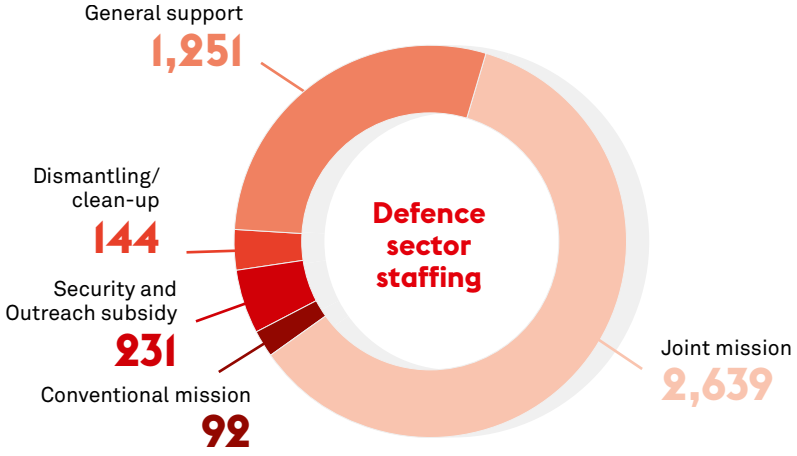
Managerial staff account for 64.4% of the workforce, a figure that is slightly up from 2016 (+1.3%).



c. Changes in staff numbers by field for each sector



** NRBC: Chemical, biological, radiological and nuclear counter-terrorism*



5. Funds to cover clean-up and decommissioning costs

As at 31 December 2017, the discounted value of liabilities for end-of-cycle operations was €16,429 million and the provision for retrospective adjustment of the Cigeo contribution is €16 million, representing in total a discounted value of €16,445 million.
These commitments are covered to the amount of €16,364 million by four decommissioning funds for civil facilities and defence facilities. The remaining €81 million represents the portion payable by the State for non-recoverable VAT on civil centre projects not financed by the civil fund.

ASSETS (MILLIONS OF €)	31.12.2017	31.12.2016
Claims on the State	**17,200**	**14,555**
of which Civil fund	5,733	4,909
Defence fund	11,386	9,568
Excluding above funds	81	78
Claims on State relating to CIGEO financing adjustment	**16**	**16**
of which Civil fund	9	9
Defence fund	7	7
Decommissioning assets - third parties	**4**	**5**
AREVA shares	**-**	**197**
WCR and liquid assets	**- 731**	**- 1,191**
TOTAL	**16,489**	**13,582**

LIABILITIES (MILLIONS OF €)	31.12.2017	31.12.2016
Provisions for end-of-cycle operations	**16,429**	**13,531**
of which Civil fund	7,428	5,919
New civil facilities fund	24	29
Defence fund	8,823	7,435
New defence facilities fund	73	70
State	81	78
Provisions for CIGEO adjustment	**16**	**16**
of which Civil fund	9	9
Defence fund	7	7
TOTAL	**16,445**	**13,547**

The above liabilities are covered by various types of assets:

- a €17,216 million claim on the French State, comprising €11,386 million under the Defence Fund, €5,733 million under the Civil Fund, €81 million in non-recoverable VAT on civil projects and €16 M to cover the risk of a retrospective adjustment of the Cigeo contribution;
- a €4 million asset (claim) on IRSN;
- a cash position of -€731 million, comprising the working capital requirements and cash & cash equivalents, including latent capital gains, which include the CEA's debt to ORANO Cycle (€670 million).

On this basis, the CEA's assets-to-liabilities coverage ratio was 100.3% as at 31 December 2017.

6. Purchasing – Strategic Partnerships and Sales Division

Roughly half of the CEA's budget is devoted to purchases.
As a public body, the CEA must abide by the principles of free access to public procurement contracts, equal treatment of economic operators, and transparent procedures, as stipulated 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 created by an Order dated 6 December 1952 (as amended). The Committee examines the CEA's major draft contracts or framework agreements, as defined by various thresholds defined in the Order mentioned above. It publishes an annual report that is examined by the CEA Executive Board's Audit Committee, which reports its findings to the Board.
In 2017, the Advisory Committee was asked by its Chairperson to examine 299 draft contracts amounting to a total of €2,130.6 million (excluding VAT). None of these 299 draft contracts received an unfavourable review. The opinions and recommendations of the Advisory Committee contribute to improving the efficiency of CEA purchasing processes and the quality of 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 might affect contract performance. Contractual solutions are sought that will reduce the need for contract amendments or addenda, and thus ensure better control over project implementation times and costs at completion.
Suppliers' skills and capabilities are regularly reviewed against the CEA's strict safety and security

requirements, especially with regard to nuclear clean-up and decommissioning operations.
Decree no. 2016-311 of 17 March 2016 pertaining to the organisation and operation of the French Alternative Energies and Atomic Energy Commission requires that the CEA should (paragraph 4) contribute to ensuring that France remains competitive, to technological development and the transfer of knowledge, skills and technology to industry, particularly in France's regions, and to commercialising its research outputs. With this in mind, 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 contributes to stimulating this innovation capacity in order to meet its needs. This also meets the French government's objectives for expanding innovation.
Since 2004, the CEA has been a signatory of the French government's "SME Pact". In 2017, the CEA awarded approximately 28% of its contracts to small or medium-sized businesses, for a value of around €750 million.
In 2010, the CEA committed itself to responsible relations with suppliers, by signing the "Relation fournisseurs responsables" charter. Article 30 of the "Public Procurement" Order of 23 July 2015 requires the nature and scope of needs to be precisely defined prior to the launch of procurement procedures, and that they take into account the economic, social and environmental aspects of the sustainable development goals. The CEA has therefore undertaken to gradually improve the economic, environmental and social performance of the various stages of the procurement process wherever circumstances so permit. In 2017, 12% of contracts included environmental or social provisions, and 250 contracts were awarded to the sheltered or supported employment sector.
The Strategic Partnerships and Sales Division also works constructively with the French government Directorate of Public Procurement (DAE), going well beyond its statutory obligations towards the DAE as apublic 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.

The CEA can also, under a permanent procurement pooling consortium agreement, join up with contracts initiated by the DAE or other inter-ministerial contracts. In this area, it has taken an interest in contracts for project management and ownership assistance in IT service provision.
On several occasions, the DAE has invited CEA to share its experience of procurement or performance measurement.

7. Outlook for 2018 CEA budget

In the CEA's budget for 2018, funding is up by 2% from the 2017 budget.
The State subsidy in the 2018 budget, including Investment for the Future Programmes, account for 64% of all funding, a 4.7% increase on the 2017 budget, given the 2018 programme of defence projects and the financing needs for very large-scale research infrastructure and the ITER projects.
External income is projected to increase by 2.7% over the 2017 budget, notably with an increase in income from industrial partners.
The civil and defence decommissioning funds will account for 15% of the CEA's total funding.
Expenditure in the civil sector is expected to rise by 4% over the 2017 budget.
Payroll costs under the collective bargaining agreement should fall by 0.5% in the civil sector compared with the 2017 budget, with staff numbers increasing by 0.3%.
The number of general support staff in the civil secto will continue to fall (-1.3%) compared with the 2017 budget.
Expenditure in the defence sector is expected to rise by 2.9% compared with the 2017 budget, in line with the planned progress of various projects.
Payroll costs under the collective bargaining agreement should fall by 0.6% in the defence sector compared with the 2017 budget, with staff numbers falling slightly, by 0.7%.
The number of general support staff in the defence sector will continue to fall (-3.1%) compared with the 2017 budget.

Annual financial statements

1. Income Statement

The 2017 Income Statement shows a loss of €515 million, which is larger by €440 million than in the previous financial year. This variation is chiefly due to an €15 million increase in net operating income and a €3 million increase in net financial income, against a very significant increase in extraordinary losses (-€458 million).
The loss recognised in the Civil Fund (-€217 million) is primarily due to the repayment of a €376 million advance granted by the French government, with a transfer of securities from the Central Establishment to the Civil Fund, replacing the claim on the State for the corresponding amount. The resulting debt write-off generated an extraordinary expense of €219 million.
Results from the New Civil Facilities and New Defence Facilities Funds (+€1 million and -€2 million respectively), are primarily related to latent capital gains (New Civil Facilities Fund) and to costs that were not covered by provision write-backs (New Defence Facilities Fund).

- General budget (excl. carryovers) ..... - € 296 million
- Civil Fund ..... - € 217 million
- Defence Fund ..... - € million
- New Civil Facilities ..... - € million
- New Defence Facilities ..... - € 2 million
- ITER ..... - € million
- DSND[1] ..... - € million
- DDCG ..... - € million
- AFNI ..... - € million
- I2EN ..... - € million
- IRT ..... - € million

The management figures for the general budget excluding carryovers (-€296 million) includes variation in the provision for annual leave (€13 million) and variation in the provision for the time off in lieu account (CET – Compte Epargne-Temps) (€4 million).

[1] DSND : Delegate for nuclear safety and radiation protection for activities and facilities concerning defence.

	Notes	2017	2016
Sales		8	5
Construction work		323	346
Provision of services		196	208
INCOME	**NOTE 3**	**527**	**559**
Production added to inventory		128	76
Capitalised production		32	37
Budgeted operating income	NOTE 4	2,252	2,268
Write-back of provisions	NOTE 8	805	822
Write-back of equipment grants	NOTE 9	453	456
Other income		76	37
OPERATING INCOME		**4,273**	**4,255**
Expenditure over the financial year	NOTE 5	- 2,095	- 2,025
Taxes, duties and similar payments	NOTE 6	- 223	- 227
Staff costs	NOTE 7	- 1,508	- 1,481
Allocations for depreciation and provisions	NOTE 8	- 492	- 585
Share of the net result from joint operations	NOTE 10	-	-
Other expenses		- 7	- 4
OPERATING EXPENSES		**- 4,325**	**- 4,322**
NET OPERATING INCOME		**- 52**	**- 67**
Financial income		733	1,112
Financial expenses		- 744	- 1,126
NET FINANCIAL INCOME (LOSS)	**NOTE 11**	**- 11**	**- 14**
INCOME (LOSS) FROM OPERATIONS		**- 63**	**- 81**
Extraordinary income		707	81
Extraordinary expenses		- 1,159	- 75
NET EXTRAORDINARY ITEMS (INCOME OR LOSS)	**NOTE 12**	**- 452**	**6**
CORPORATE TAX		**-**	**-**
NET RESULT		**- 515**	**- 75**

(in millions of euros)

2. Balance sheet

Assets	Notes	Amount as at 31/12/2017	Excluding dedicated funds	Dedicated funds	Amount as at 31/12/2016
INTANGIBLE ASSETS	NOTE 13				
Gross value		337	337	-	321
Depreciation		- 254	- 254	-	- 240
TANGIBLE ASSETS					
Other tangible assets	NOTE 13				
Gross value		15,011	15,011	-	14,372
Depreciation		- 7,359	- 7,359	-	- 7,073
DECOMMISSIONING ASSETS - THIRD PARTIES	NOTE 14	5	1	4	5
FINANCIAL ASSETS	NOTE 15				
Gross value		543	543	-	1,032
Provisions		- 26	- 26	-	- 32
FIXED ASSETS					
Gross value		15,896	15,892	4	15,730
Depreciation and provisions		- 7,639	- 7,639	-	- 7,345
NET VALUE		8,257	8,253	4	8,385
INVENTORY AND WORK-IN-PROGRESS	NOTE 16				
Gross value		6,279	6,279	-	6,257
Provisions		- 19	- 19	-	- 19
NET VALUE		6,260	6,260	-	6,238
ADVANCE PAYMENTS MADE ON ORDERS		50	50	-	25
OPERATING RECEIVABLES					
Gross value		872	752	120	868
Provisions		- 53	- 53	-	- 52
NET VALUE		819	699	120	816
CLAIMS ON THE STATE	NOTE 18	17,216	81	17,135	14,570
SUNDRY RECEIVABLES	NOTE 19	753	753	-	466
CASH BALANCES AND SECURITIES	NOTE 20				
Gross value		574	384	190	1,175
Provisions		- 4	0	- 4	- 4
NET VALUE		570	384	186	1,171
OTHER		18	18	-	15
FOREIGN EXCHANGE ADJUSTMENTS		-	-	-	-
REDUCTION IN CLAIMS ON STATE		-	-	-	64
GRAND TOTAL		33,943	16,498	17,445	31,750

(in millions of euros)

Liabilities	Notes	Amount as at 31/12/2017	Excluding dedicated funds	Dedicated funds	Amount as at 31/12/2016
Special reserves	NOTE 21	14,269	13,620	649	13,978
Equipment grants received from third parties		1,113	1,113	-	1,048
Balance carried forward from previous financial years	NOTE 22	- 483	- 42	- 441	- 3,133
Balance for the year	NOTE 22	- 515	- 296	- 219	- 75
EQUITY CAPITAL		14,384	14,395	- 11	11,818
PROVISION FOR LIABILITIES AND EXPENSES	NOTE 23	16,567	203	16,364	13,698
FINANCIAL DEBT		128	128		259
ADVANCES RECEIVED ON ORDERS		59	59		74
OPERATING PAYABLES		1,873	816	1,057	1,861
SUNDRY PAYABLES		849	849		1,229
OTHER		83	48	35	89
FOREIGN EXCHANGE ADJUSTMENTS		-	-	-	-
INCREASE IN CLAIM ON STATE		-	-	-	2,722
GRAND TOTAL		33,943	16,498	17,445	31,750

(in millions of euros)

The loss carried forward (-€483 million) has mainly arisen from the management of the dedicated civil fund, which initially created 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 transactions that are by nature non-budgeted (change in 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 neutralising the ancillary budgets, the decommissioning funds, and the IRT, AFNI (Agence France Nucléaire International), DSND and ITER France Agency funds.

The 2017 budget balance shows a deficit of €27 million.

BUDGETED 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 (J)	Of which I2EN (K)	Of which IRT (L)	Total budgeted expenditure (A)-(B)-(C)-(D)-(E)-(G)-(H)-(I)-(J)-(K)-(L)
OPERATIONS (EXCL. VAT)	-	-	-	-	-	-	-	-	-	-	-
OPERATING EXPENSES	-	-	-	-	-	-	-	-	-	-	-
Expenditure over the period from third parties	2,102	49	4	2	-	128	1	-	1	1	1,916
Tax and duties	223	-	-	-	-	-	-	-	-	-	223
Staff costs	1,508	15	2	4	1	2	-	-	-	-	1,484
ALLOWANCES FOR DEPRECIATION AND PROVISIONS	492	464	-	-	-	-	1	-	-	2	24
SHARE OF NET RESULT FROM JOINT OPERATIONS	-	-	-	-	-	-	-	-	-	-	-
FINANCIAL EXPENSES	744	6	-	-	-	1	737	-	-	-	-
EXTRAORDINARY EXPENSES	1,159	564	-	-	-	-	569	-	-	-	26
CORPORATE TAX	-	-	-	-	-	-	-	-	-	-	-
ANNUAL SUBSIDY ALLOCATED TO SPECIAL RESERVE	-	-	-	-	-	-	-	-	-	-	-
TOTAL FROM INCOME STATEMENT	6,228	1,098	6	6	1	131	1,308	0	2	3	3,673
Restatement/ adjustment of expenses and income	-77	-	-	-	-	-103	-4	-	-	-	30
TOTAL OPERATING ACTIVITIES	6,151	1,098	6	6	1	28	1,304	-	2	3	3,703
Investing activities (excl. VAT)	-	-	-	-	-	-	-	-	-	-	-
Class 1	5	-	-	-	-	-	-	-	-	-	5
Class 2 asset purchases	725	-	-	-	-	-	-350	-	-	-	1,075
Class 4: changes in advances	-	-	-	-	-	-	-	-	-	-	-
TOTAL INVESTING ACTIVITIES	730	-	-	-	-	-	-350	-	-	-	1,080
GRAND TOTAL	6,881	1,098	6	6	1	28	954	-	2	3	4,783

(in millions of euros)

BUDGETED FUNDING	Total funding (A)	Of which non-budgeted transactions (B)	Of which ancillary annexes (C)	Of which DSND (D)	Of which DDCG (E)	Of which AIF (G)	Of which dedicated funds (H)	Of which AFNI (J)	Of which I2EN (K)	Of which IRT (L)	Total budgeted funding (A)-(B)-(C)-(D)-(E)-(G)-(H)-(I)-(J)-(K)-(L)
OPERATING ACTIVITIES (EXCL. VAT)	-	-	-	-	-	-	-	-	-	-	-
OPERATING INCOME	3,015	158	7	6	1	130	- 748	-	2	1	3,458
Write-backs of depreciation and provisions	805	14	-	-	-	-	745	-	-	-	46
Write-backs of equipment grants and contributions received from third parties	453	451	-	-	-	-	-	-	-	2	-
FINANCIAL INCOME	733	12	-	-	-	-	716	-	-	-	5
EXTRAORDINARY INCOME	708	42	-	-	-	-	376	-	-	-	290
ALLOCATION TO SPECIAL RESERVES	515	515	-	-	-	-	-	-	-	-	-
TOTAL FROM INCOME STATEMENT	6,229	1,192	7	6	1	130	1,089	0	2	3	3,799
Restatement/ adjustment of expenses and income	- 77	-	-	-	-	- 103	- 4	-	-	-	30
TOTAL OPERATING ACTIVITIES	6,152	1,192	7	6	1	27	1,085	-	2	3	3,829
Investing activities (excl. VAT)	-	-	-	-	-	-	-	-	-	-	-
Class 1											
Financial debt	5	-	-	-	-	-	-	-	-	-	5
Subsidies received from third parties during the period	146	-	-	-	-	-	-	-	-	-	146
Allocation of the State subsidy to special reserves and equipment subsidy	776	-	-	-	-	-	-	-	-	-	776
TOTAL OPERATING ACTIVITIES	927	-	-	-	-	-	-	-	-	-	927
GRAND TOTAL	7,079	1,192	7	6	1	27	1,085	-	2	3	4,756

(in millions of euros)

4. Cash flow statement

		31/12/2017	31/12/2016
Operating activities			
Cash from operations (1)		- 3,012.7	- 2,711
• Carry forward		2,725	125
• Changes in inventory		- 75.9	- 19
• Changes in receivables including advances and deposits on fixed assets		414.6	1,052
• Changes in debt		- 3,111.9	542
CASH FROM OPERATIONS	(A)	- 3,060,9	- 1,011
Investing activities			
Proceeds from the disposal of tangible and intangible assets		648.1	1
• Acquisition of tangible and intangible assets		- 788.7	- 746
• Changes in financial assets		488.5	- 255
• Changes in Decommissioning Assets - Third Party		- 0.1	3
CASH FROM INVESTING	(B)	- 629,2	- 998
CASH BALANCE AFTER INVESTMENT FINANCING	(C = A + B)	- 3,690,1	- 2,008
Financing activities			
Repayment of State advance		376	-
• Changes in financial debt		5.9	- 2.7
• Subsidies and contributions received from the State and third parties (2)		2,844.5	2,821
CASH FROM FINANCING	(D)	3,226,4	2,818
NET INCREASE (DECREASE) IN CASH	(C + D)	- 463,7	810
pening cash balance (*)		968.5	158
Closing cash balance (*)		504.8	968
Change in cash position (*)		- 463.7	810

(*) including investment securities

(in millions of euros)

5. Notes to the Annual Financial Statements

A - ACCOUNTING METHODS AND PRINCIPLES

Note 1 - General background

• 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 French Research Code – which repealed Order No. 45-2563 of 18 October 1945, confirm that the French Alternative Energies and Atomic Energy Commission (CEA) is a scientific, technical and industrial establishment with legal personality, and administrative and financial autonomy, falling within the category of public organisations 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 2004 Order and the provisions of the 1945 Order which have been temporarily upheld, the operation of the CEA and its relations with the State are defined by various texts, in particular Order No. 70-878 of 29 September 1970 and its implementing Order No. 72-1158 of 14 December 1972.

In accordance with the Letter of Engagement of the Chairman signed by the Prime Minister on 20 April 2015 and the decisions made by the President of the Republic at 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. The purpose of said decree is to:

- Reform CEA governance to enhance strategic oversight of the organisation by its supervisory bodies,
- Clarify the mission of the CEA,
- Revise existing texts in order to simplify and coordinate with other research bodies.

• Key events in 2017

• Under an Order dated 16 August 2017, the CEA was permitted to:

- sell a 10.1% stake in AREVA SA (83,555,555 shares) to the French State to repay the€376 million advance granted by the State to the CEA under the conditions set forth in the agreement of 13 July 2016;
- sell a 15.1% stake in AREVA SA (124,793,828 shares) to the French State for a price of€270 million;
- Purchase a 5.4% stake (12,774,283 shares) in ORANO from the French State for a total price of €270 million;

As a result of these transactions, the CEA no longer holds any shares in AREVA SA and has a stake in the new company ORANO. This outcome corresponds with the CEA's strategic and investment aims.

• The difference between the book value of the shares held in AREVA SA and the buy-back price paid by the State in the swap transaction has led to a book loss of €252 million in the CEA accounts.

• In order to repay the €376 million advance, which was held in the scope of the Dedicated Funds, the CEA had to transfer further AREVA shares to the Dedicated Funds.

• This asset transfer offset a claim on the State for the same amount. The resulting debt write-off generated an extraordinary expense of €219 million.

• Since there are no longer any AREVA shares in the Civil and Defence Funds as at 31 December 2017, the claim on the State will no longer be affected by fluctuation in the AREVA share price. The corresponding entry in an adjustment account on the balance sheet is therefore no longer required. This adjustment account was closed out and a total of €2,725 million was carried over.

• Payment of €740 million in government funding (two instalments of €370 million in February and November respectively) to cover expenditure from the funds dedicated to older facilities.

• Payment of €100 million in government funding in late December to enable repayment of the CEA debt to ORANO corresponding to the transfer from CEA to Cogema of obligations relating to future clean-up and decommissioning costs at the La Hague site and the CFCa facility at Cadarache, for a cost of €670 million as at 31 December 2017. Discussions with government ministries and ORANO are in progress to define how the future repayments will be funded and completed.

• Following submission of a clean-up and decommissioning operations prioritisation report to the safety authorities on 16 December 2016, the CEA continued its discussions with the safety authorities and IRSN, and a mid-to-long-term plan was drawn up, establishing a ten-year operational programme for each project. This draft mid-to-long-term plan will be audited in 2018 at the request of the Directorate-General for Energy and Climate (DGEC) and will be regularly updated.

• As stated in the notes to the 2016 financial statements, this work has given rise to some significantly revised costings in principle. These new estimates reduce the confirmed risks mentioned in the notes as at 31 December 2016, incorporate the impacts of the prioritisation report and are consistent with the timetables set forth in the baseline mid-to-long-term plan. At close of period, the provisions are €16,445 million, compared with €13,547 million as at 31 December 2016. Revisions to the estimates and calendar represent €3,180 million. These revisions primarily relate to the Marcoule and Cadarache centres and have been at the centre of further specific audits. The discount rate and long-term inflation rate remain unchanged at 4.1% and 1.65% respectively.

• The claim on the State to cover clean-up and decommissioning liabilities from before 1 January 2010 is €17,216 million compared with €14,570 million as at 31 December 2016. This incorporates the revisions to estimates and calendars for the older Funds (€3,180 million) and the government funding paid out over the period (-€840 million).

• As part of the AREVA restructuring process, the CEA acquired a 20% stake in Technicatome at a cost of €113 million.

• The assumptions used by the CEA to calculate staff-related commitments as at 31 December 2017 are the

same as those used in 2016: a discount rate of 1.5% and a forecast inflation rate of 1.5%.

Note 2 - Accounting methods and principles

• General principles

general chart of accounts in accordance with Regulation No. 2014-03 of the French Accounting Standards Authority (ANC), as approved by the Order dated 8 September 2014 and published in the Official Gazette on 15 October 2014.

Exemptions have been allowed, if, in the valuation of certain assets and liabilities, the application of the accounting regulations stipulated by these texts was deemed unlikely to produce a true representation of the business and assets, given their specialised nature (inventory and work-in-progress) or their financing method.

Funding received at the end of the financial year, intended to finance services that have not yet been performed, is entered under "Budgeted operating income", 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 because of cancellation of the grants recorded over the financial year, under circumstances which do not allow a corresponding reduction in expenditure because of commitments already made, this balance is allocated to "special reserves".

• Accounting methods and principles applying as at year-end

a) Intangible assets

Intangible assets include patents and licenses 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 with 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 on the "Land" line correspond to depreciation of development on these investments.

The key depreciation periods applied are as follows:

- Buildings .....20 years
- Light constructions .....10 years
- Technical facilities .....10 to 30 years
- Plant and equipment .....3 to 10 years
- Transport equipment and vehicles .....4 years
- Furniture, office and IT equipment.....3 to 10 years

Investment subsidies received for the purchase of fixed assets are recognised as "Equipment grants received from the State" and "Equipment grants received from third parties".

c) Decommissioning assets

The share of provisions for end-of-cycle operations corresponding to funding expected from third parties (IRSN) is recognised as "Decommissioning 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) Inventories

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 weapon systems and resources made available to the Armed Forces is the value of the materials alone, which will ultimately be recovered by the CEA.

Since these materials were procured and funded under specific programmes, 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 to have been used once they have been made available to the end user, or have entered the reactor, or become part of a cycle involving irradiation.

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 at 31 December 2017 was established (€17,216 million).
The accounting implications of this agreement are explained in Note 18.

g) Impairment of receivables

Impairments are valued on a case-by-case basis according to an assessment of the risk of default. 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 on the balance sheet at their acquisition cost.
Furthermore, as at the closure date, unrealised gains or losses are calculated on the basis of the last known net asset value of the units, for investment funds, and on the basis of the last rate for December, for bonds.
A provision is made for unrealised losses at the end of the financial year.

i) Budget subsidy received from the State

The budget subsidy awarded by the State is recognised under "Equipment grants", "Special reserves" or "Budgeted operating income", depending on the nature of the expenditure it is 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.
Government funding paid into the Dedicated Funds serve to reduce the claim on the State.

j) Equipment grants received from the State and third parties

These grants are recognised on 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 expenses

A provision is created if there is an obligation towards a third party at period end that the CEA is able to estimate with sufficient accuracy, 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 period end. These liabilities are mentioned in the Notes if they 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) Funding for decommissioning of nuclear facilities

The provisions associated with the decommissioning of nuclear facilities correspond to the total cost of the operation in situations in which the CEA is the facility licensee, or to the share attributable to it through its past involvement in a programme, or joint operation of a facility, if the CEA is not considered to be the licensee.
Since 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:
- an account entitled "Decommissioning 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 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 funding provided to Programme 190 of the "Research and Higher Education" mission, which enables all State funding to the CEA for nuclear facility decommissioning and clean-up to be grouped together within this mission.

In a letter dated 1 December 2008, the DGEC, which is the administrative authority that oversees the coverage of nuclear licensees, 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 assumes that the liquidity of this asset will meet its cash needs, and with this in mind has carried out work to prioritise its operations.

b) Estimation of the cost of decommissioning nuclear facilities

Facility decommissioning costs are assessed using methods 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 decommissioned (the ETE EVAL application, jointly developed with AREVA), based on an inventory of facility equipment, and its projected radiological conditions, and on models involving scenarios and elemental cost ratios.
In view of the wide variety of facilities to be decommissioned and the resulting variation 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.);
- 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 work of the PEON advisory committee on the cost of nuclear power;
- once a decommissioning project has been launched, studies are performed to assess clean-up and decommissioning costs with a constantly decreasing margin of error;
- finally, when decommissioning work is underway, the costs at completion are regularly reviewed, based on current purchase orders and contracts.

Provisions relating to the decommissioning of nuclear facilities and waste recovery and conditioning are set up taking the following considerations into account:
- an inventory of the costs of bringing the site to decommissioning stage, which, unless there are particular requirements to be considered, generally involves the total, unconditional clearance 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 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 the processing 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 decommissioning.

Finally, the cost estimate 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 estimate of their consequences in terms of cost and time, weighted according to the likelihood 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 approach is recognised as transient, pending the outcomes of risk analyses. For other projects scheduled for the medium and long term, analysis is based on operating feedback from current projects, according to facility type (reactor, laboratory, etc.) and expenditure items (management of project and works, operation, waste).
- inclusion of the remaining VAT owed by the CEA, calculated on the basis of the currently applicable VAT rate (20 % as at 31 December 2017) and a flat-rate tax coefficient.

c) Long-term management of radioactive waste packages
- Until the end of 2014, future costs related to deep geological disposal were assessed at the end of each financial year, based on the produced quantities of high- and intermediate-level waste (HLW-LL and ILW-LL) covered by the Act of 28 June 2006, and the assumption that a deep geological repository will be used. Under the aegis of the DGEC, a working group, composed of representatives from ANDRA, EDF, AREVA and the CEA, was set up in 2004. The group submitted its report in the second half of 2005. The CEA performed a reasonable assessment based on the findings of the working group and until the end of 2014, adopted unit costs by waste category, based on a total estimate of €14.1 billion (under 2003 economic conditions) for the deep geological repository.
- The State initiated a review process and a revised estimate was announced in mid-January 2016 by the Ministry of Ecology, 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 caused the CEA to set aside an additional end-of-cycle provision of €858 million (net) in discounted value. 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.
- This 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 the projected waste volume for geological disposal from each organisation. 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

delivered to the Cigeo facility (2029 instead of 2025). In addition, a review of impacts from transport issues and packaging standards was underway at the time of closure.
- 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) Accounting impact of end-of-cycle obligations
- Provisions for end-of-cycle operations are made on a discounted basis by applying to the projected cash flows positioned by maturity, an inflation rate and a discounting rate that are estimated according to the following principles:
- the inflation rate corresponds to the long-term objective of the European Central Bank;
- the discount rate adopted is either the market rates atthe time of closure or the statutory lowest discount rate limit, whichever is the most prudent.
- As at 31 December 2017, the forecast inflation rate was 1.65% (same as 2016) and the discount rate was 4.1% (same as 2016).
- the effects of accretion over time are recognised each year on the balance sheet as increased provisions for end-of-cycle operations, with the "Financial expenditure" entry as a corresponding entry, while the part relating to financing to be received from third parties and the State is recorded as an addition to the Claim on the State, with a corresponding entry in "Financial income".
- Changes in assumptions with regard to changes in estimates, discount rate and work schedules have the following impact on the accounts:
- for obligations initiated before 1 January 2010, covered by Amendment 1 to the State/CEA Framework Agreement, and subject to a revised estimate validation process, the provisions will be increased, with a corresponding increase in the Claim on the State;
- for obligations initiated on or after 1 January 2010, the provisions will be increased, with a corresponding entry in expenses. These obligations are covered by an additional contribution to the CEA, recognised as an asset, with a corresponding entry in income.

e) Systems and equipment provided to the armed forces
The analyses carried out in 2012 cleared up uncertainty, enabling the end-of-cycle provisions for that year to take into account the irradiated fuel elements from Defence facilities.
The costs of decommissioning weapons systems and equipment made available to the Armed Forces are not presented in the off-balance sheet commitments, as these costs will be met by the Armed Forces themselves. The same applies for the cost of recovering the corresponding materials considered to be necessary to the CEA's activities.

f) Main sources of uncertainty and judgement required to close the accounts
The supplementary provisions recognised as at 31 December 2017 have materially contributed to enhancing the robust nature of the provisions.
The CEA nonetheless remains exposed to certain risks and uncertainties, as mentioned in the Notes to the financial statements and stated below.
Such risks and uncertainties are chiefly due to the fact that the CEA facilities being decommissioned and cleaned up are very old and have specific requirements due to the research activities which took place at each of them.

Summary of the main sources of uncertainty or material risks relating to account closure and contingent liabilities, as stated in the Notes to the CEA Financial Statements.
The valuations used for the end-of-cycle provisions are the CEA's best estimates at the time of account closure of the resources that will be required to fulfil its current and future facility decommissioning and clean-up obligations (including waste recovery and conditioning). Moreover, some such obligations are likely to lead to disbursements, but given the information available at the time of closure, 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. Such uncertainties are inherent to the planned duration of operations (several decades), the main causes of which are as follows:
- **inadequate knowledge of the initial state:**
. detailed knowledge of the physical condition of certain older facilities sometimes requires supplementing with radiological inventory and characterisation operations which will only become possible at later stages of decommissioning. The decommissioning scenarios have to be adapted as knowledge of the facilities and associated sites progresses (in particular the level of soilremediation required);
- **safety requirements and regulatory changes:**
. the safety, security and environmental protection requirements established by the government and safety authorities may change, entailing consequences for scheduling and operations;
- **changes in the definition of final state:**
. the targeted final state of facilities and sites requiring decommissioning may change depending on requirements from government and safety authorities ;
- **changes in the availability of disposal facilities, disposal costs or waste conditioning specifications:**
. the estimate of future costs related 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) from mid-January 2016, based on preliminary design. This estimate includes a provision for risks and contingencies. Additional costings are currently being studied with regard to transport and logistics. Risks and uncertainties remain concerning the acceptability of packages, the cost split between producers, and any potential future changes in the cost and scheduling estimates;

- 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 future waste management conditions in the ANDRA LLW-LL and Cigeo disposal facilities.

- financial resource planning:

- the schedule for decommissioning operations corresponds to disbursement schedules that are included in the financial scenarios;
- the establishment of a mid-to-long-term (10-year) plan in late 2017, which is consistent with budgeted financial flows from the State up to 2022 has reduced this risk, and post-2022 assumptions 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 fixedcosts which have required provisions;

- technical difficulties not covered by contingency provisions, in particular:

- potential developments in waste processing and waste and facility clean-up technologies could affect the final cost of end-of-cycle operations;
- since all the project calendars are closely linked, any delay on one project could cause delays and additional costs for all end-of-cycle operations. For example, if the disposal facilities were unavailable at the planned dates, this would have a significant impact on end-of-cycle scenarios, in particular waste recovery and conditioning programmes;
- early shutdown of certain facilities or projects could incur costs for clean-up and decommissioning 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 decommissioning 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 management strategy for the radioactive materials and waste held by the CEA;
- an updated presentation of 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.

Further discussions will continue in 2018 on this basis with the safety authorities and the French government, in order to validate the proposal. Significant risks and uncertainties remain however, which could lead to revised estimates in 2018.

l) Tax and staff-related liabilities

The commitments of the CEA towards its staff with respect to paid holiday due but not yet taken, and paid holiday accrued but not yet due, have been recognised in the accounts from financial year 2006 onwards.
In 2012, the CEA extended this accounting practice totherights to paid leave registered by the staff in a time off in lieu account (CET-PERCO).

B - COMMENTS ON THE ACCOUNTS
(in millions of euros)

Note 3 - Operating income

Operating income represents research, work and services for which invoices are issued by the CEA to third parties in connection with its programs or services.

Note 4 - Budgeted operating income

This item corresponds to the balance of the State subsidy for the financial year allocated to the financing of operating expenditure for the year.

Note 5 - Expenditure for the financial year

Expenditure during the financial year breaks down as follows:

	2017	2016
Consumption of goods in inventory	**97**	**79**
Sub-contracting purchases	**709**	**664**
Purchases of non-inventory materials and supplies	**332**	**325**
External services:		
• Maintenance and repair	306	311
• General sub-contracting	305	313
• Travel – Missions	79	51
• Remuneration of intermediaries and fees	85	76
• Temporary and seconded staff	34	39
• Transport of property and staff	26	24
• Internships	17	16
• General and technical documentation	6	7
• Telecommunications – Postal charges	6	7
• Rentals	36	36
• Other expenses	57	77
TOTAL	**2,095**	**2,025**

(in millions of euros)

Note 6 - Taxes, duties and similar payments

Taxes, duties and similar payments break down as follows:

	2017	2016
Non-recoverable VAT on goods and services	52	56
Tax on wages	60	60
Tax on basic nuclear installations (INBs)	58	60
Other taxes	53	51
TOTAL	223	227

(in millions of euros)

Note 7 - Staff costs

Staff costs represent the following:

	2017	2016
Wages and salaries	1,043	1,025
Social security contributions	465	456
TOTAL	1,508	1,481

(in millions of euros)

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

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

	2017	2016
Depreciation		
• Allocations	- 456	- 484
• Write-backs	-	-
Provisions for depreciation of assets		
• Amount provisioned	- 23	- 26
• Write-backs	24	56
Provisions pour risques et charges		
• Amount provisioned	- 13	- 75
• Write-backs	781	766
TOTAL	313	237

(in millions of euros)

Allocations to depreciation of intangible and tangible assets amounted to €456 million in 2017, down by €28 million.
Write-backs of provisions €805 million in 2017 is mainly related to the decommissioning of nuclear facilities, the treatment of waste and the processing of fuel for which no further use is planned (€746 million).

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

This corresponds to the deduction applied to "Equipment grants received from the State" and "Equipment grants received from third parties", depending on the term or service life of the assets financed.
Write-backs for 2017 (€453 million) were used to finance the allocations to depreciations recognized for the year on tangible and intangible assets (€456 million) after taking into account the write-back of provisions for impairment of fixed assets (-€11 million).

Note 10 - Share of the net result from joint operations

Not applicable for 2017.

Note 11 - Financial items

A financial loss of €11 million was recognised in 2017, compared with a financial loss of €14 million in 2016. This breaks down as follows:

	2017	2016
Dividends	2	8
Investment income and interest on receivables	3	6
Revaluation of "Provisions for decommissioning"	476	945
Write-backs of provisions	241	67
Other financial income	2	4
Write-back of impairment provisions	9	82
FINANCIAL INCOME	733	1,112
Interest on borrowing and debt	260	85
Net expenses on disposal of investment securities	-	-
Allocations to provisions	484	1,040
Other financial expenditure	-	1
FINANCIAL EXPENSES	744	1,126

(in millions of euros)

Allocations to provisions for financial year 2017 (€484 million) mainly break down as follows: €480 million to cover the impact of accretion concerning provisions for end-of-cycle operations (inflation and accretion), and €4 million for the impairment of investment securities booked as unrealised losses at the end of the financial year.
The revaluation of "Decommissioning provisions" under financial income includes all provisions for facility decommissioning and for waste treatment , discounted for inflation and accretion.
The write-backs of provisions in the amount of €241 million are mainly intended to cover these provisions against the impact of changes to payment schedules and of discounting (€237 million), as well as the write-back of the provision for the impairment of investment securities (€4 million).
The write-back of the provision for impairment of securities mainly concerns the write-back of impairment provisions previously set aside for securities in CEA Investissement.
The high level of financial expenses and income for 2016 stems from the impact of the drop in discount rate for end-of-cycle obligations and its impact on the claim onthe State.

Note 12 - Extraordinary items

An extraordinary loss of €452 million was recognised in 2017 and breaks down as follows:

	2017	2016
Write-backs on equipment grants received from the State	42	60
Proceeds from the disposal of assets	648	1
Write-back of provisions and expense transfers	14	12
Other extraordinary income	3	8
EXTRAORDINARY INCOME	707	81
Management operations	244	14
Retirement of fixed assets	914	60
Allocations to depreciation and provisions	-	-
Sundry extraordinary expenses	1	1
EXTRAORDINARY EXPENSES	1,159	75

(en millions d'euros)

"Write-backs on equipment grants received from the State" (€42 million) corresponds to the net book value of assets retired during the financial year.
The €646 million in proceeds from the disposal of assets corresponds to the sale of AREVA shares to the State.
The extraordinary expenses for management operations, in the amount of €244 million (compared with €14 million in 2016), chiefly recognises the write-off of a claim on the State (€219) following repayment of the cash advance granted in 2016.
"Retirement of fixed assets" corresponds to the net book value of assets sold or otherwise disposed of over the financial year, in the amount of €914 million (€60 million in 2016), including €872 million for the retirement of AREVA shares.

Note 13 - Intangible and tangible assets

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

GROSS VALUE	Balance as at 31/12/2016	Acquisitions and production 2017	Retirements 2017	Other transactions 2017[1]	Balance as at 31/12/2017
Intangible assets	313	3	2	11	325
Land	195	-	-	2	197
Buildings	2,861	5	16	119	2,971
Specific installations and other tangible assets	8,027	26	143	234	8,143
Fixed assets under construction and advances	3,297	802	5	- 382	3,712
TOTAL	14 693	836	165	- 16	15 348

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

(in millions of euros)

DEPRECIATIONS/PROVISIONS	Balance as at 31/12/2016	Allocations to depreciation and provisions 2017	Write-back of provisions and retirements 2017	Other transactions 2017	Balance as at 31/12/2017
Intangible assets	240	16	1	-	255
Land	116	5	-	-	121
Buildings	1,916	110	15	2	2,013
Specific installations and other tangible assets	5,041	333	147	- 2	5,225
TOTAL	7,313	464	163	-	7,614

(in millions of euros)

Note 14 - Decommissioning assets – Third parties

This item (€4 million as at 31 December 2017) corresponds to future financing expected from IRSN for their share in CABRI facility clean-up costs.

Note 15 - Financial assets

This breaks down as follows:

	31/12/2017	31/12/2016
Equity securities	522	1,010
Receivables from equity interests	14	13
Loans	4	5
Other long-term investments	3	4
TOTAL	543	1,032

(in millions of euros)

With a net value of €496 million as at 31 December 2017, there was a €482 million drop in **equity securities** as compared with 2016.
This change is due to the transfers of AREVA SA shares in accordance with the Decree of 16 August 2017, by which the following transactions were recorded:

- sale of AREVA SA shares to the State, representing a 25.2% stake in the share capital;
- acquisition through the State of a 5.4% stake in ORANO 12,774,283 shares.

Following these transactions, the CEA no longer owns any AREVA SA shares and has a stake in the new ORANO organisation.

- CEA also acquired a 20.3% holding in Technicatome.

Furthermore, as the net worth of CEA Investissement has improved, the provision for impairment of investment securities (€6 million) was fully written back.
Receivables from equity interests and joint ventures (EIGs) increased by €1 million, from €13 million in 2016 to €14 million as at 31 December 2017. This variation results from the increase in receivables owed by the EIG GANIL.
"Loans" had a net balance of €4 million as at 31 December 2017, down €1 million from 2016.
This breaks down as follows:

- Loans to personnel: €3 million, down slightly from 2016;
- full discharge loans to collection authorities: €1 million, also down slightly from 2016.

"Other long-term investments", in the amount of €3 million at year-end 2017, remained stable compared with 2016.

Note 16 - Inventory and work-in-progress

This breaks down as follows:

	31/12/2017	31/12/2016
Raw materials and other supplies	3,403	3,455
Work-in-progress and goods-in-process	1,643	1,577
Semi-finished and finished goods	1,233	1,225
TOTAL	6,279	6,257

(in millions of euros)

Note 17 - Age of receivables

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

	Maturity less than 1 year	Maturity more than 1 year
Receivables on non-current assets	2	19
Receivables on current assets	2,291	16,618
TOTAL	2,293	16,637

(in millions of euros)

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 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 Act of 26 July 2006.

In 2017, the CEA repaid the cash advance granted by the State in 2016, in the amount of €377 million (including €1 million in interest) in the form of shares in AREVA SA. As a result, the CEA recorded a partial write-off of the claim on the State (€219 million), corresponding to the shares contributed by the CEA to the civil fund to honour this payment. The corresponding entry is recorded on the income statement of the Civil Fund as an extraordinary expense.

Following this repayment, the CEA no longer owned any shares in AREVA SA in the assets of the dedicated fund as at 31 December 2017. This situation shows that there is no longer a need for the accrued assets/liabilities adjustment account on the balance sheet that tracked changes in the AREVA SA share price, with a corresponding entry to track the variation in the claim on the State. A total of €2,725 million was therefore carried forward.

Finally, the claim on the State was reduced by €740 million, which is the amount of the payment of the annual grant allotted by the State to finance clean-up/decommissioning operations (from Programme 190 of the general budget) in addition to the payment of an additional grant of €100 million (from the CAS PFE Programme 732) to reimburse part of the outstanding capital owed for the CEA's debt to ORANO Cycle (formerly Areva NC). This is the only impact included in the CEA 2017 accounts resulting from the ongoing discussions with the State and ORANO concerning the terms for paying off CEA's debt to ORANO Cycle.

Note 19 - Sundry receivables

"Sundry receivables" rose by €287 million, up from €466 million as at 31 December 2016, to a net value of €753 million as at 31 December 2017, corresponding mainly to:

- grants to be received from third parties, €214 million in 2017, up by €6 million, from €208 as at 31 December 2016,
- variation in "Grants to be received from European funding" (+ €25 million),
- variation in "Pending invoices" (+ €7 million),
- variation in payment credits to be received from the State (+ 264 million).
- variation in "sundry debtors" (- €9 million),
- variation in advances on current accounts (+€1 million).

Note 20 - Cash balances and investment securities

This item states the situation of all bank accounts and investments, giving a gross value of €574 million as at 31 December 2017. Bank accounts with a credit balance are booked under "Financial debt".
It breaks down as follows:

	31/12/2017	31/12/2016
Liquid assets and investments allocated to current activities	199	715
Liquid assets allocated to the national loan	184	284
Liquid assets and investments committed to end-of-cycle operations	191	176
TOTAL	574	1,175

(in millions of euros)

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

	31/12/2017	31/12/2016
Market value:		
• Stocks and shares funds	83	80
• Bond and cash funds	108	96
TOTAL	191	176
By geographical origin:		
• Eurozone	150	137
• World	41	39
• Other	-	-
TOTAL	191	176

(in millions of euros)

OBJECTIVE OF THE DEDICATED PORTFOLIO

There are four Dedicated Funds, two for the civil sector and two for the defence sector, further split into facilities commissioned before 31 December 2009 (Dedicated Civil Fund and Dedicated Defence Fund) and after 1 January 2010 (New Civil Facilities Fund and New Defence Facilities Fund), which are monitored separately.
The Dedicated Civil Fund and Dedicated Defence Fund were originally formed based on 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 dry-up of the two 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. As at 31 December 2017, they were made up of 55% equity funds, 44% bond funds, and 1% money market funds.
These portfolios are dedicated to expenditures 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 market contexts.
The four dedicated Funds are valuated at year-end, based on the net asset value (NAV) as at 31/12 of the financial year for each of the investment lines in the portfolio.

Note 21 - Special reserves

The «Special Reserves» break down as follows:

	Amount as at 31/12/2016	Allocation 2017	Write back 2017	Amount as at 31/12/2017
Special reserves received from the State	7,677	31	-	7,707
Equipment grants received from the State	6,302	690	430	6,562

(in millions of euros)

Note 22 - Accumulated balance of the financial years

The accumulated balance of the financial years, after allocation of the 2017 balance (-€515 million), comes to -€998 million. This breaks down as follows:

- General Budget ..... - 343
- Civil Fund ..... - 730 [1]
- Defence Fund ..... 72 [1]
- New Civil Facilities 11
- New Defence Facilities ..... - 12
- Supplementary budgets 1
- ITER 1
- DSND 1
- DDCG ..... -
- AFNI ..... -
- I2EN 1
- IRT ..... -

TOTAL ..... - 998

[1] *After clearing Assets/Liabilities accruals.*

The difference between 2016 and 2017 breaks down as follows:

	Situation as at 31/12/2016	Clearance of Assets/Liabilities accruals	2017 Balance	Situation as at 31/12/2017
General Budget	- 47	-	- 296	- 343
Civil Fund	- 3,264	2,751	- 217	- 730
New civil facilities fund	10	-	1	11
Defence Fund	99	- 26	- 1	72
New defence facilities fund	- 10	-	- 2	- 12
Supplementary budgets	1	-	-	1
ITER	2	-	-	2
DSND	1	-	-	1
DDCG	-	-	-	-
AFNI	-	-	-	-
I2EN	-	-	-	-
TOTAL	**- 3 208**	**2 725**	**- 515**	**- 998**

(in millions of euros)

This negative balance has mainly arisen from the management of the civil fund, which had a financial imbalance from when it was set up.
This imbalance is due to the difference between the book value of the AREVA shareholding, recorded in the CEA accounts at its historical purchase value, and its estimated present value, and was mostly resorbed when our AREVA shares were sold in 2017, in accordance with the Order of 16 August 2017.
This situation is not expected to jeopardize the continuation of the organisation as a going concern.

Note 23 - Provisions for liabilities and expenses

Provisions for liabilities and expenses underwent the following changes during the financial year:

	Amount as at 31/12/2016	Allocations 2017	Write-backs 2017[2]	Amount as at 31/12/2017
Provision for decommissioning and treatment of waste and processing of fuels for which no further use is planned	13,531	3,898[1]	1,000	16,429
Decommissioning provision allocated to the financing of facilities	22	-	1	21
Provision for disputes	60	11	32	39
Provision for CIGEO adjustment	16	-	-	16
Provision for normal waste treatment	25	-	1	24
Provision for retirement	34	-	4	30
Provision for service medals	7	-	-	7
Provision for recovery of sources	-	-	-	-
Other	3	-	2	1
TOTAL	**13,698**	**3,909**	**1,040**	**16,567**

(in millions of euros)

[1] Transactions affecting the "Claims on State" entry: €3,401 million (allocation: €3,417 million) (write-back:€16 million)
[2] Of which write-back of unused provisions:
• operational provisions: €0.6 million,
• extraordinary provisions: €0 million

In the provisions for liabilities and expenses, the provisions associated with decommissioning, treating waste and processing fuel with no further use account for a sum of €16,445 million as at 31 December 2017, i.e. 99% of the total amount of these provisions. These break down as follows:

	Total	Civil fund and CEA	New Civil Facilities Fund	Defence Fund	New Defence Facilities Fund	Excl. State/third party funds
Situation as at 01/01/2017	**13,547**	**5,928**	**29**	**7,442**	**70**	**78**
Impact of inflation and accretion	478	209	1	263	3	2
Impact of changes in forecast rates	-	-	-	-	-	-
Variation in the VAT flat rate tax coefficient	- 16	-	-	-	-	- 16
Write-back of 2016 works	- 745	- 346	- 6	- 393	-	-
Changes in estimates and changes in scope	3,181	1,645	1	1,518		17
Situation as at 31/12/2017	**16,445**	**7,436**	**25**	**8,830**	**73**	**81**

(in millions of euros)

As at 31 December 2017, the 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 -€1,136 million or +€1,345 million respectively, resulting in the values of €15,293 million and €17,774 million respectively for all provisions (inside and outside the scope of the Act).

As at 31 December 2017 and 2016, the provisions for facilities decommissioning, 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 for nuclear costs, are broken down as follows:

	Gross value		Discounted value	
EXPENSE CATEGORY	2016 total cost	2017 total cost	2016 total cost	2017 total cost
1. DECOMMISSIONING EXPENSES				
1.1 to 1.4 Facilities where the CEA is the nuclear licensee	9,541	10,511	6,871	7,483
1.1 to 1.4 CEA share for facilities where the licensee is a third party	28	402	27	302
1.5. Third-party nuclear licensee	269	287	234	241
SUB-TOTAL	9,838	11,200	7,132	8,026
2. FUEL MANAGEMENT EXPENSES				
2.1 Waste which can be recycled in industrial facilities which already exist or are under construction	1,114	1,214	524	594
2.2 Other fuel	217	249	188	213
SUB-TOTAL	1,331	1,462	712	808
3. EXPENSES FOR RECOVERY AND CONDITIONING OF LEGACY WASTE				
3.1 Operations for recovery and conditioning of waste stored at a CEA facility	3,206	5,320	2,424	3,582
SUB-TOTAL	3,206	5,320	2,424	3,582
4. RADIOACTIVE WASTE PACKAGE MANAGEMENT EXPENSES				
4.1 CEA management of waste packages	724	2 075	540	1,435
4.2 Long-term management of waste packages	5,452	5,466	2,315	2,162
SUB-TOTAL	6,176	7,540	2,855	3,596
5. POST REPOSITORY CLOSURE MONITORING EXPENSES				
5.1 Expenses related repository monitoring in post-closure period	583	588	79	79
SUB-TOTAL	583	588	79	79
TOTAL PROVISIONS WITHIN SCOPE OF ACT EXCLUDING NON-DEDUCTIBLE VAT CHARGES	21,135	26,111	13,202	16,090
Non-deductible VAT within scope of act	140	149	76	79
TOTAL PROVISIONS WITHIN SCOPE OF ACT DATED 28 JUNE 2006	21,275	26,260	13,278	16,170
Provisions for expenses outside scope of the act (ICPE, etc.)	312	328	251	258
Non-deductible VAT outside scope of act	3	2	2	2
TOTAL PROVISIONS FOR OUTSIDE SCOPE OF ACT	314	330	253	260
TOTAL PROVISIONS FOR WITHIN/OUTSIDE SCOPE OF ACT	21,447	26,439	13,453	16,348
Non-deductible VAT within/outside scope of act	142	151	78	81
TOTAL PROVISIONS AS AT 31 DECEMBER	21,589	26,590	13,531	16,429

(in millions of euros)

Note 24 - Age of payables

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

	Maturity less than 1 year	Maturity more than 1 year
Financial debt	96	32
Debts to third parties	1,776	1,005
A djustment account	47	36

(in millions of euros)

Note 25 - Cash provided by operations

Gross operating surplus	- 818
Share of the net result from joint operations	-
Financial expenses payable	- 2
Collectable financial income	7
Extraordinary expenses payable	- 245
Collectable extraordinary income	4
Budgeted operating income	- 1,939
Income tax	-
TOTAL	- 2,993

(in millions of euros)

Note 26 - Off-balance sheet commitments as at 31 December 2017

COMMITMENTS RECEIVED	
Guarantees received from banks to cover holdbacks for suppliers	**103**
Various bank guarantees	**2**
COMMITMENTS GIVEN	
Staff benefits[1]	**944**
Retirement expenses:	
• Retirement benefits	412
• Early retirement scheme	406
Pensioners' health expenses scheme	126
Foreign exchange hedging	**3**
Other commitments	**21**

[1] Of which provisioned commitments - €30 million.

(in millions of euros)

The commitments for staff benefits have been valued on a discounted basis at a rate of 3%, of which 1.5% for long-term inflation.
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 highly-rated corporate bonds in industrial and commercial enterprises.
The resulting rate is rounded up or down by 25 bp, taking into account the rate change trend:

• for the Eurozone, the resulting rate is 1.50%.

These commitments were down by €7 million compared with 2016 (€944 million as at 31 December 2017, compared to €951 million at 31 December 2016).
This decrease is due to:

• pension rights acquired for the financial year/ benefits paid out .....- €31 million
• impact of the change in discount rate.....- € million
• impact of population movements, scenario changes and experience variance..... + €23 million

Note 27 - Information on disputes and contingent liabilities

The following section describes any 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 liability. 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 the Territorial Economic Contribution (formerly known as business tax) as its defence-related activities are of direct concern to national defence, and its civil activities comply with for-profit/not-for-profit criteria established by jurisprudence.
The CEA 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. Prior court decisions confirm that the CEA's position is justified, for both Military Applications Division centres and civil centres. Decisions awarding full relief from the former business tax and, since 2010, from corporate property tax, resulting in reimbursements and penalty 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 audit department (DVNI) sent the CEA an adjustment proposal to sectorise activities subject to local taxes, which were 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 and/or corporate property tax contributions.
In 2012, the DVNI initiated a new general audit of the CEA, with further work on Military Applications Division 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 Ile-de-France and Valduc Military Applications Division sites giving rise to a levy of property tax on developed property for these buildings. However, it was confirmed that these sites are not subject to corporate property tax contributions.
The DVNI informed the CEA in a letter dated 6 December 2016 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 auditing operations focused on the 2016 property taxes and the 2014, 2015 and 2016 corporate property tax contributions. The following centres were audited: Saclay, Grenoble, Ile-de-France Military Applications Division sites 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 Ile-de-France Military Applications Division centre was deemed to be subject to property taxes and corporate property tax contributions, unlike the Valduc site, which was deemed to be subject to property taxes. In four responses dated 20 December 2017, the CEA submitted its remarks to the tax authorities.
The provisions recorded as at 31/12/2017 were determined with respect to the tax bases of which the DVNI gave notice in the four abovementioned "type 751" information letters.
Uncertainties concerning decommissioning liabilities are detailed in Paragraph 1.11.2.

Note 28 - Other information

Situation concerning corporate tax

The CEA's corporate 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 tax on income derived from public research activities.
The tax authorities have made comments on this tax regime, the latest being in the Official Tax Bulletin BOI-IS-CHAMP-50-10-20170405 dated 5 April 2017).
In accordance with the activity sectorisation principle established by the tax authorities from the 2006 financial year, CEA's earnings from equity securities arenow taxable.

Policy on insurance

The CEA's policy concerning insurance is built on a set of clear, consistent, and coordinated principles that result from regular communication between the Insurance Department and the various operational and functional divisions.
This dialogue has led to a consensus on the purposes of 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. The policy on insurance is determined on the basis of management level. The general principles are proposed by the Insurance Department and approved by the CEA's Senior Management team. Specific principles for various specific areas are approved as relevant by the Financial Division, the Human Resources and Labour 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, and monitoring efficiency via management indicators.
To limit risks, whenever possible, the CEA transfers risks to its contractors. This applies only to risks relating to contractual liability. Furthermore, in order to reduce the financial impact of certain potential 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 coverage for unpredictable risks to insurers reflects its desire to protect itself against the consequences of damage to third parties and to safeguard its assets and employees.

a) Third-party liability insurance

1) Nuclear third-party liability

In light of the special regime governing nuclear third-party liability, the CEA has taken out coverage for nuclear third-party liability in accordance with the Paris Convention of 29 July 1960 on nuclear energy and the obligations under Articles L. 597-1 and following of the French Environmental Code. The CEA now benefits from the State Guarantee*** 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 nuclear energy field.
The CEA also has insurance covering its liability as a holder and user of ionising radiation sources, or as a service provider, or for the transport of radioactive substances under its responsibility which are not covered by the Paris Convention.

2) Conventional third-party liability

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

3) Motor vehicle third-party liability

To comply with motor vehicle third-party liability insurance obligations established by the Act of 24 February 1958, the CEA insures all the vehicles which it owns or leases. Many of these vehicles are also covered by collision and comprehensive insurance.
In addition, to manage risks and for financial purposes, 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 uses this reserve amount first 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 CEA is automatically reimbursed the remaining balance. This system significantly reduces insurance taxes as the retention mechanism is tax-exempt.

b) CEA asset insurance

In view of the significant security and preventive measures in place at its centres, particularly related with 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, the CEA optimises the financial benefit of its insurance programmes for property damage.
The CEA's policy on insurance makes a distinction between damage caused to its assets resulting from the construction of a structure, damage of any kind in operating phase, and damage resulting from decommissioning work.

1) Property damage caused during the construction phase

The CEA ensures that all risks associated with construction or civil engineering works are covered, regardless of whether or not such work concerns nuclear activities. This coverage gives the CEA the certainty that in the event of an accident, financial resources will be found quickly.
It has therefore taken out contractor's all risks insurance on behalf of all those participating in the work, for all construction operations exceeding an amount of €2 million.
This type of policy covers accidental property damage affecting construction, civil engineering or process work during the construction period up to acceptance of the assets. It also has optional coverage for damage caused to existing facilities, for instance during renovation work or when there are adjacent buildings.
For operations over €2 million, to cover damage occurring after acceptance, CEA has insurance covering structural property damage and ten-year inherent defects insurance covering civil engineering structures.

2) Damage caused to assets during operating phase

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 the contract, the policy covers material damage resulting from events such as fire, lightning, explosion, collapse, natural disasters, water damage, acts of terrorism and sabotage, and 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 with its insurers. The purpose of these inspections are to identify the main potential risks and assess the fire detection systems, particularly 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 program also includes insurance policies specially designed to cover its plant, machineryand 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) Property damage caused during decommissioning phase

The CEA takes out 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 a decommissioning all risks policy for decommissioning operations over €2 million on behalf of all those participating in the work, holding them harmless against any claims from the insurer. This guarantees the CEA rapid, 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 coverage is concerned, the main purpose of the insurance is to provide:
- a lump-sum payment to the beneficiary/ies in the event of the death of the employee,
- an educational annuity for 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 insurance schemes such as insurance for loans, death/invalidity insurance and insurance for pensioners and expatriates.

Note 29 - Staff numbers

Staff numbers as at 31 December 2017:	
• managerial staff	10,135
• non-managerial staff	5,472
TOTAL	**15,607**

Note 30 - Events after the closing of accounts

The CEA's staff incentive agreement for the 2017, 2018 and 2019 financial years, signed on 30 June 2017, was amended on 12 April 2018 to modify the clause that triggers pay-out of the incentive bonus.
In accordance with the amended agreement, the gross sum of bonuses to be paid out for 2017 is €12.2 million, instead of the €10 million set aside in the accounts.

C - INFORMATION ON SUBSIDIARIES AND HOLDINGS AS AT 31 DECEMBER 2017

COMPANY	Capital	Reserves [1] and balance brought forward before allocation of income	Share of capital held %	Book value of shares held		Loans and advances granted by the company and not repaid	Guarantees granted by the company	Sales ex-VAT of the last year closed	Profit/ loss of the last year closed [2]	Dividends collected by the company in the year	Observations on provisions for impairment of receivables
				Gross	Net						
1) FRENCH SUBSIDIARIES (DETAILED INFORMATION)											
ORANO 1 Place Jean Miller Tour AREVA 92400 COURBEVOIE, FRANCE	118.9	-	5.4	270.2	270.2	-	-	[3]	[3]	0	-
TECHNICATOME Route de Saint-Aubin 91190 VILLIERS LE BÂCLE, FRANCE	22.1	-	20	113.6	113.6	-	-	[3]	[3]	0	-
CO-COURTAGE NUCLÉAIRE (389518853) Le Ponant D 25 rue Leblanc 75015 PARIS, FRANCE	*ns*	-	90	*ns*	*ns*	-	-	-	-	0.2	-
CEA-INVESTISSEMENT [2] (423426899) Le Ponant D 25 rue Leblanc 75015 PARIS, FRANCE	72.2	-8.0	100	72.2	72.2	-	-	[3]	[3]	-	-
FT1CI [2]	68.2	85.9	4.89	61.3	35.9	-	-	0	33.6 [2]	1.2	-
2) FRENCH HOLDINGS (DETAILED INFORMATION)											
MINATEC [3] Hôtel du Département 7 rue Fantin Latour BP 1096 38022 GRENOBLE Cedex 1, FRANCE	6.9	4,3	22	1.5	1.5	-	-	[3]	[3]	1.2	-
SEML Route des Lasers [3] 20, rue de Suson 33830 BELIN BELIET, FRANCE	15.5	[3]	11.6	1.8	1.8	-	-	[3]	[3]	-	-
GIE III V LAB [2] Route de Nozay 91460 MARCOUSSIS, FRANCE	5	0	20	1	1	-	-	24.6	[3]	-	-

[1] Including statutory provisions and investment subsidies.
[2] Net income (loss) before approval of 2017 accounts.
[3] Data from the last financial year not available.

(in millions of euros)

Auditors' report on the annual financial statements

Financial year ending 31 December 2017

Dear Sir or Madam,

Opinion
In fulfilment of the task entrusted to us by the Minister of the 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 2017, 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 "Auditors' responsibilities in auditing the annual financial statements" hereunder.

Independence
We performed our auditing assignment in accordance with the applicable rules concerning independence, for the period from 1 January 2017 to the date of our report. Furthermore, he have not provided any services prohibited by the code of conduct of the auditing profession.

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

- Note 2.f "Accounting methods and principles – Claim on the State" in the Notes, 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 – Provisions for liabilities and expenses – End-of-cycle commitments" in the Notes, which restate the key assumption adopted in drawing up the 2017 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 "Provisions for liabilities and expenses – End-of-cycle commitments" of the accounting principles 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.
- Paragraph g) of Note 2.k.2 "Accounting methods and principles – Provisions for liabilities and expenses – End-of-cycle commitments" in the Notes, which mentions the possibility of changes to the decommissioning strategies for the next fifteen years with clear priorities and consolidated binding decommissioning programmes, and the review of the annual funding required for the next 15 years for decommissioning and waste management operations, taking into account the updated decommissioning strategy and the development

of the Cigeo project. This note g) specifies that the discussions related to this strategic analysis will continue in 2018. Furthermore, significant risks and uncertainties remain and could lead to revised estimates in 2018.
- Note 18 "Claim on the State", which specifies that in 2017, the CEA obtained an additional grant to repay part of the outstanding capital owed on the CEA debt to ORANO Cycle (formerly AREVA NC) and that it is the only impact incorporated into the CEA's 2017 financial statements since discussions are in progress with the State and ORANO on the terms for paying off the CEA's remaining debt to ORANO Cycle.

Justification of findings
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 €16,445 million on the balance sheet, were calculated in accordance with the accounting methods, valuation rules and principles described in Notes 2.11.2 "Accounting methods and principles – Provisions for liabilities and expenses – End-of-cycle commitments», and Note 26 "Provisions for end-of-cycle operations" in the Notes.
As a counterpart to 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 2.11.2 a) "Accounting methods and principles – Provisions for liabilities and expenses – End-of-cycle commitments – Funding for decommissioning of nuclear facilities" and Note 21 "Claim 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 assets
Note 1.4 "Financial assets" in the accounting methods and principles presents the method for valuing 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
Note 1.9 "Budget subsidy received from the State" and Note 1.10 "Equipment grants received from the State and third parties" in the accounting methods and principles set out the accounting methods for subsidies received from the State and its partners. During our audit, we verified that this method had been applied correctly and checked its presentation.

• Off-balance sheet commitments
Note 1.12 "Tax and staff-related liabilities" and Note 33 "Off-balance sheet commitments" in the Notes set out the methods used to estimate retirement benefit commitments and the assumptions on which their calculation is based. During our audit, we 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.

Verification of the Management Report and other documents submitted to the Executive Board
In accordance with the applicable professional standards in France, we also conducted the specific verifications provided for by law.

We have no observations to make on the reliability and compliance of the annual financial statements with the information given 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 honest and reliable annual financial statements which are in line with French accounting rules and principles. It must also implement 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 to operate, and if applicable, present information relevant to the 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 were approved by the Executive Board.

Auditors' responsibilities in auditing the annual financial statements

The auditors 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 corresponds to a high level of assurance. However there is no guarantee that an audit conducted in accordance with professional standards will systematically identify any significant anomalies. Anomalies may result from fraud or errors 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 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 toaddress these risks and gather evidence they deem sufficient and appropriate to form their opinion. The risk of failure to detect a significant anomaly resulting from fraud is higher than the risk of failure 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 the appropriateness of Management's implementation of the accounting policy for a going concern and, depending on the information gathered, whether there is significant uncertainty related to events or circumstances which could jeopardize the ability of the organisation to continue operating. This assessment is based on information gathered up to the date of the report. However, subsequent events or circumstances could jeopardize the organisation as a going concern. If they find that there is reason for significant uncertainty, they draw the attention of the readers to the information provided in the annual financial statements concerning the uncertainty or, if the information is not provided or irrelevant, they may either issue the certification with reservations o reject 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.

Paris La Défense18 June 2018

DIVISION OF KPMG S.A.

Denis Marangé
Partner

Laurent Genin
Partner

MAZARS

Thierry Blanchetier
Partner

David Chaudat
Partner

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

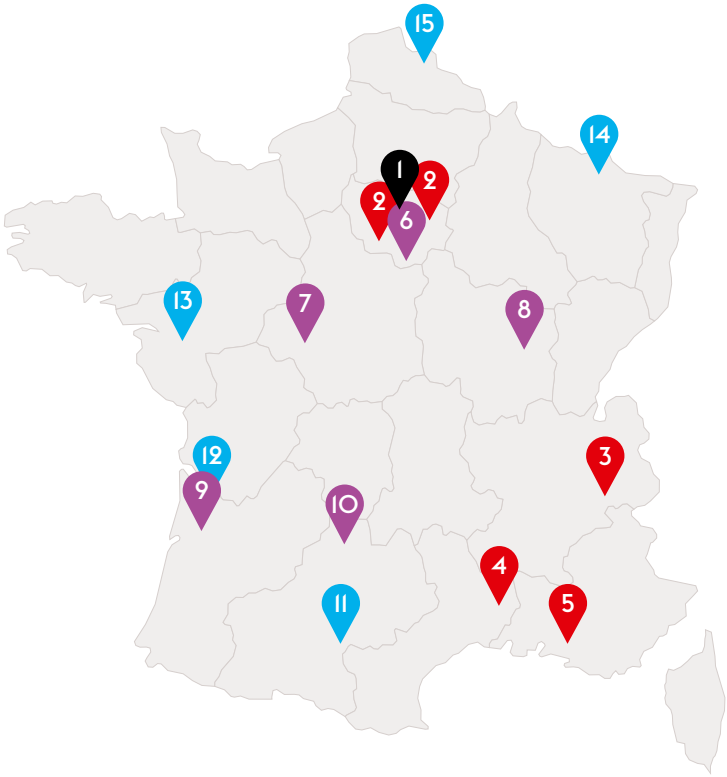
11 Toulouse

12 Bordeaux

13 Nantes

14 Metz

15 Lille



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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.
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