



**IRSN**

INSTITUT  
DE RADIOPROTECTION  
ET DE SÛRETÉ NUCLÉAIRE

*Enhancing nuclear safety*

# FINANCIAL REPORT 2015



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# MANAGEMENT REPORT

## CONTEXT

The year 2015 saw a major legislative change when the Act on energy transition for green growth was passed on August 17, 2015. The Act includes several articles that strengthen the French Environment Code by extending the powers of the Nuclear Safety Authority (ASN), clarifying IRSN's assessment and research missions, and adopting measures to promote greater transparency.

Under this Act, IRSN is given a place in the Environment Code, which now presents a comprehensive panorama of all the parties concerned with the governance of nuclear and radiological risks, namely the licensees, authorities, public assessment bodies and civil society.

At a time when budgetary constraints go hand in hand with continued growth, IRSN's resources were predicted to be stable in fiscal year 2015, the first in the 2015-2017 three-year budget period. While this budgetary context already imposed the need to continue the efficiency initiatives started in 2013, the situation became tougher still in 2015, with a €2.8 million cut in the grant under Budget Program 190, compared with the amount voted in the Initial Finance Act (LFI). This led to certain research and assessment activities – and even some priorities – being reviewed.

IRSN also continued to work hard on responding to the conclusions of the *Cour des Comptes* report on its financial statements and management over the period 2007-2012, and of the certification report on its financial statements for 2014, as well as implementing the decree on budget management and public accounting (GBCP) of November 7, 2012 starting on January 1, 2016. As part of this effort, it improved its economic and financial management by revising its budget programming methods, and adapting the related management processes and tools.

### **EXPERT ASSISTANCE IN SUPPORT OF THE SAFETY AUTHORITIES AND OTHER PUBLIC AUTHORITIES**

IRSN's work in 2015 in connection with its technical support for ASN included examining new facilities under construction, the Flamanville 3 EPR in particular, monitoring the operation of existing facilities, and analyzing the related operating experience feedback.

Particularly noteworthy events in 2015 included:

- the completion of the periodic safety review of the UP3 plant in La Hague;
- the start of the periodic safety review of 900 MWe reactors as part of their fourth ten-yearly outage program, which will include examining aging phenomena in plants with a view to extending their service life beyond 40 years;
- examination of the operating license application for the Flamanville EPR;
- preparatory work for commissioning the Jules Horowitz reactor.

IRSN also continued to examine the safety improvements to the “post-Fukushima hardened safety core” proposed by licensees in response to the ASN technical requirements to enhance the robustness of their facilities with regard to extreme hazards.

Regarding the technical support provided to the Nuclear Safety Authority for Defense-related facilities and activities (ASND), in addition to the regular assessment of military nuclear systems and regulated nuclear defense facilities (INBSs) in the context of monitoring the different plant operating phases, a major priority in 2015 was the further examination of the safety case for the nuclear-powered attack submarine (Barracuda program) and, more particularly, the intermediate safety analysis report (accident studies, impact studies on accidents affecting the population).

With regard to nuclear security, IRSN continued to devote considerable effort in 2015 to providing the Safety Authority with expertise concerning the implementation of the «PCMNIIT» decree (Decree 2009-1120 of September 17, 2009 on the protection and control of nuclear materials, nuclear facilities and nuclear material transport) and its implementing orders, with the aim of ensuring the compliance of facilities by 2016. In accordance with its support and technical assistance missions, it also managed and monitored nuclear material transport operations, performed technical checks and inspections of nuclear facilities and transport operations, and carried out its tasks relating to national nuclear material accountancy.

As part of its support for the public authorities, IRSN contributed to the preparation of the white paper on radiological monitoring in the workplace, which was submitted to the Minister of Labor in 2015. It also took part in work on transposing Council Directive 2013/59/Euratom of December 5, 2013. The new version of SIGIS, the information and management system for the French national inventory of sources of ionizing radiation, was finalized during the year. It now gives inspection bodies, in particular the labor inspectorate, direct access to the database to fulfill their tasks.

### RESEARCH TO ENHANCE NUCLEAR SAFETY AND RADIATION PROTECTION

In order to successfully perform its role as a public expert in nuclear and radiological risks, IRSN must ensure that it has the required knowledge at all times. It achieves this by analyzing operating experience feedback from nuclear facilities, and by conducting research. Its research programs focus mainly on determining the parameters that affect the susceptibility of facilities to risks, understanding the phenomena that might be the causes of major accidents, improving the effectiveness of possible responses, developing the knowledge on which protective action is based, and perfecting the operational tools and techniques that it needs to fulfill its tasks (metrology of ionizing radiation, databases, computing and modeling tools, etc.).

Several major events relating to various aspects of research took place in 2015: regarding governance, IRSN published its scientific strategy; at the European level, the results of the first Euratom H2020 call for projects were published (IRSN is involved in 11 of the 14 projects selected under the first call for projects of the H2020 framework program for funding research in the field of nuclear fission and radiation protection); and regarding operations, the year saw the deployment of projects backed by the French National Research Agency (ANR) under the Investment in the Future Program. Safety-related work included IRSN's research on severe accidents and issues relating to corium retention inside the reactor vessel in the event of a core melt accident. This work, which will continue as part of the European research project IVMR (*In Vessel Melt Retention*), is particularly significant because the ability (or failure) to preserve the integrity of reactor containment in an accident situation determines environmental releases, which are sources of radioactive doses to the public and of long-term contamination of the affected regions.

Research concerning radiation protection is aimed at acquiring greater knowledge and understanding of the effects of exposure to ionizing radiation on human health and the environment. Important research results published include those of INWORKS, an epidemiological study involving IRSN on the risk of cancer in workers in the nuclear industry.

### OPENING UP TO SOCIETY AND TRANSPARENCY

As part of its policy of transparency and opening up to society, IRSN is committed to making its activities more transparent and helping stakeholders in civil society acquire the knowledge they need to participate more fully in risk assessment, in collaboration with IRSN. These commitments are set out in the IRSN Charter on Openness to Society. The second report on its application, covering the period from 2011 to 2014, was published in 2015. The report is another step forward in opening up to society and focuses on two areas: exchanging and sharing expert knowledge relating to safety cases, and developing IRSN's action at the local and regional levels.

A concrete example of the latter point can be seen in the experimental radon screening initiative launched at the end of 2015 in Haute-Vienne in central France, during which IRSN worked with the intercommunal authorities of «Aurence et Glane Développement» and «Monts d'Ambazac et du Val du Taurion» and several other local stakeholders. The program, which will last nearly two years, aims to enable residents to discover their level of exposure to radon at home and to help them take the necessary steps to reduce it.

## FISCAL YEAR BUDGET EXECUTION

### CONTEXT

In fiscal year 2015:

- funds provided to IRSN by the French Ministry of the Environment, Energy, and the Sea (MEEM) under Budget Program 190 were cut by €5.6 million, a reduction that was partially offset by the €2.6 million contribution paid to IRSN by regulated nuclear facility licensees;
- IRSN's self-generated revenue rose by €3.2 million, while operating expenses fell by €5.5 million;

- personnel costs fell by €1.8 million, with an average of 1,692 employees (full-time equivalent worked), excluding government-subsidized contracts and intern and apprentice contracts), for an initial budget of 1,703 full-time equivalent worked. The number of full-time equivalent (FTE) employees at the end of December 2015 was 1,741.5;
- the special fund earmarked for the cleanup and dismantling of IRSN facilities was reclassified from fixed assets to cash, resulting in an €11.5 million increase in working capital as at December 31, 2015;
- the DGFIP instructions dated December 18, 2012 and November 20, 2013 relating respectively to external funding of assets and to received grants was taken into consideration in accounting for grants subject to the fulfillment of conditions, such as those received from the French National Research Agency (ANR) (see *Note 16 in the Appendix*);
- the minimum recognition limit for a depreciable asset was set at €1,500 for both intangible and tangible assets, and depreciation rules were updated in compliance with accounting standards and with the Board of Directors' decision of October 15, 2015.

The balance of expenditures and resources showed a deficit of €11.8 million in 2015, compared with a projected deficit of €28.6 million.

In € millions	EXECUTION				PROJECTION	
	2013	2014	2015	Variations 2015/2014	2015	Actual/ Proj. Variation
Total resources	306.7	365.0	279.1	-85.9	281.8	-2.7
Total expenditures	299.1	390.3	290.9	-99.4	310.5	-19.6
<b>BALANCE</b>	<b>+7.6</b>	<b>-25.3</b>	<b>-11.8</b>	<b>+13.5</b>	<b>-28.6</b>	<b>+16.8</b>

For the record, fiscal year 2014 was affected by the work on the CABRI experimental reactor being recorded as a fixed asset and by the consequent change in equity.

Fiscal year 2015 includes an extraordinary operation concerning the special fund, resulting in an €11.5 million drop in the balance. Once adjusted for this extraordinary operation, the €19.6 million shortfall in actual expenditure compared with the budgeted amount was reduced to a shortfall of €8.1 million, giving an expenditure execution rate of 97.4% for 2015.

As some operations were rescheduled as part of the second budget amendment in 2015, the difference compared with this budget year, adjusted for the special fund operation, amounts to -€6.6 million, of which -€4.8 million is due to delays in carrying out certain investments or specific expenditures, excluding carryovers already earmarked for

working capital in the second budget amendment in 2015. The negative balance of €1.8 million was added to the working capital at the end of December 2015 with the intention of making up for the drop in the grant under Budget Program 190 in the first budget amendment 2016.

## RESOURCES BY ORIGIN

The following table gives resources by origin, showing actual figures against the initial budget for 2015:

In € millions	ACTUAL 2015		IB 2015	
	Fields	Total revenues	Total revenues	
001 Facility radiation protection		12.7		13.0
002 Security, non-proliferation		0.1		0.3
003 Radiation protection – Environment and human health		15.4		18.6
004 Emergency response and post-accident situations		0.5		0.7
005 Transparency, opening up to society, safety culture		-0.5		1.3
006 Strategy, scientific and technical excellence		4.5		6.9
Interdisciplinary		246.1		241.0
<b>TOTAL</b>		<b>278.7</b>		<b>281.8</b>

## EXPENDITURE BY DESTINATION

The following table gives expenditure by destination expressed in terms of production costs, showing actual figures against the initial budget for 2015:

In € millions	ACTUAL 2015				IB 2015	
	Fields	Operation	Investment	Personnel	Total expenditure	Total expenditure
001 Facility radiation protection		38.2	9.9	57.3	105.4	108.6
002 Security, non-proliferation		2.9	0.5	7.3	10.7	10.6
003 Radiation protection – Environment and human health		22.8	10.5	33.3	66.5	65.4
004 Emergency response and post-accident situations		2.9	0.5	4.1	7.5	8.7
005 Transparency, opening up to society, safety culture		4.0	0.2	4.2	8.4	8.1
006 Strategy, scientific and technical excellence		2.9	0.1	10.5	13.5	13.0
Functional and support		13.9	2.3	21.5	37.6	38.3
Information technology		11.7	1.9	1.6	15.2	13.9
Property master plan		0.3	8.5	0.1	8.9	9.3
Other property		19.8	7.1	2.1	29.0	28.2
Feursmetal		1.1	-	0.1	1.3	2.6
Special dismantling fund*		-	-	-	-	3.7
<b>TOTAL</b>		<b>120.5</b>	<b>41.5</b>	<b>142.1</b>	<b>304.1</b>	<b>310.5</b>

\* The special dismantling fund was moved from fixed assets to cash in the 2015 financial statements.

**BUDGET VERSUS ACTUAL REPORT****Income Statement**

In € thousands	Actual 2015	Budget 2015
<b>REVENUE</b>		
Sales and service contracts	41,119	37,875
Government grants	171,060	176,922
Other operating income	66,164	60,571
Investment income	55	-
Extraordinary revenue	169	-
Internal operations	23,152	16,382
<b>TOTAL REVENUE</b>	<b>301,719</b>	<b>291,750</b>
<b>EXPENDITURE</b>		
Personnel expenses*	142,130	143,905
Operating expenses	120,498	125,987
Internal operations	32,586	27,124
<b>TOTAL EXPENDITURE</b>	<b>295,213</b>	<b>297,016</b>
<b>FISCAL YEAR PROFIT OR LOSS</b>	<b>6,506</b>	<b>(5,266)</b>
<b>TOTAL INCOME STATEMENT BALANCE</b>	<b>301,719</b>	<b>291,750</b>

\* Personnel expenses are personnel costs and the cost of taxes on remuneration.

Fiscal year 2015 ended with a €6.5 million profit, compared with a projected loss of €5.3 million in the initial budget, making a difference of +€11.8 million, of which +€10.0 million is due to extra income and -€1.8 million due to a reduction in expenses.

**Revenue**

Revenue for activities billable by IRSN rose by €3.2 million compared with the budget projection. This was due in particular to the sale of criticality results to Japan, leading to revenue of €2.4 million that was not included in the budget. Half of the amount was paid to Areva NC under the June 2015 agreement. The revenue from the CABRI project, booked using the percentage of completion method, was also higher than expected at €3.0 million. The public service grant (under Budget Program 190 under the Constitutional Bylaw on Budgets Act (LOLF)), net of contingency reserves, was €5.6 million less than projected, owing to two amendments in the Initial Finance Act for 2015 (-€2.8 million) and funds cancelled during the year (-€2.8 million).

The contribution paid by INB licensees increased by €2.6 million, compensating in part for the drop in the public grant under Budget Program 190. The other operating revenue takes into account the cancellation of expenses payable on prior fiscal years and not provided for in the initial budget.

In addition, non-budgetary revenue showed a €6.8 million increase, largely due to write-backs on provisions for which the scope was more restricted than during the initial budget preparation phase.

**Expenditure**

The total value of purchases (accounts 60, 61 and 62), budgeted at €120.8 million, was in fact €113.5 million, a decrease of €7.3 million, resulting from:

- -€7.4 million for the CABRI project due to completion delays;
- -€1.4 million for dismantling work not completed on the Feurs site;
- +€1.5 million for non-capital expenditures forming an integral part of projects.

Personnel costs (accounts 64 and accounts 631 and 633), projected at €143.9 million, totaled €142.1 million, or a difference of -€1.8 million composed primarily of a -€3.5 million difference in volume due to delays in hiring for certain positions, and a +€1.4 million difference in the employee profit-sharing plan, as the profit-sharing provision for 2015 paid in 2016 is recognized in the provisions account.

Internal operations, restated in the calculation of cash provided by operations, rose by €5.5 million. This was due primarily to:

- a €2.9 million increase in provisions relating to the commissioning of fixed assets under construction;
- a €0.7 million increase in non-budgeted special depreciation allowances;
- recording of net book values of assets disposed of following fixed asset retirements in 2015, which were not budgeted either (+€1.9 million).

**Statement of changes in financial position****Transfer of result to cash provided by operations**

In € thousands	Actual 2015	Budget 2015
<b>FISCAL YEAR RESULT</b>	<b>6,506</b>	<b>(5,266)</b>
+ Loss on sale of assets	1,873	-
+ Depreciation and provisions	30,713	27,124
+ Non-disbursable extraordinary charge	-	-
- Gains on sale of assets	(2)	-
- Gains from offsetting depreciation	-	-
- Portion of grants recorded in result	-	(10,000)
- Write-backs on depreciation and provisions	(23,151)	(6,382)
- Non-cashable extraordinary revenue	-	-
<b>CASH PROVIDED BY OPERATIONS</b>	<b>15,939</b>	<b>5,476</b>

### Summary statement of changes in financial position

In € thousands	Actual 2015	Budget 2015
<b>CASH PROVIDED BY OPERATIONS</b>	<b>15,939</b>	<b>5,476</b>
<b>SOURCES OF CASH</b>		
Equity	320	-
Government capital grants	-	-
Dismantling provision	-	-
Disposal of fixed assets	2	-
Other sources (excl. internal operations)	109	6,442
Increase in long-term debt	68	-
<b>TOTAL SOURCES OF CASH</b>	<b>16,438</b>	<b>11,918</b>
<b>USES OF CASH</b>		
Acquisition of tangible and intangible assets	40,805	36,309
Financial assets	(13,102)	3,770
Reductions in equity	-	-
Long-term debt paid	550	479
<b>TOTAL USES OF CASH</b>	<b>28,253</b>	<b>40,558</b>
<b>CONTRIBUTION TO (+) OR DEDUCTION FROM (-) WORKING CAPITAL</b>	<b>-11,815</b>	<b>-28,640</b>

#### Sources of cash

Cash provided by operations, budgeted at €5.5 million during the initial budget for 2015, totaled €15.9 million, an increase of €10.5 million. This was mainly due to an €11.8 million increase in profit, minus only €1.3 million due to the balance of internal operations. To this cash provided by operations must be added other sources of cash amounting to €0.5 million, due mainly to a €0.3 million increase on the capital grants item, corresponding to the share of income from CABRI recognized on a percentage of completion basis. As the special fund is no longer booked under IRSN's fixed assets as at December 31, 2015, it is no longer visible as a source of cash.

#### Uses of cash

The total amount of €28.3 million was used for:

- the acquisition of tangible and intangible assets and investments and the reimbursement of financial debts, in the amount of €41.5 million, or €4.6 million over the budgeted amount;
- the reclassification of the special fund earmarked for facility dismantling and cleanup, from fixed assets to cash, in the amount of €13.2 million. As for sources of cash, the use of the special fund is no longer visible under uses of cash because of the above reclassification.

This resulted in an €11.8 drop in working capital, or a €23.3 million drop on a like basis, compared with a projected withdrawal of €28.6 million in the initial budget.

### Working capital and working capital requirement

In € millions	Actual 2015	Budget 2015	Actual/Budget difference	Actual 2014	Actual difference 2015/2014
Result	+6.5	-5.3	+11.8	-4.5	+11.0
Cash provided by operations	+15.9	+5.5	+10.5	+14.0	+2.0
Variation in working capital	-11.8	-28.6	+16.8	-25.3	+13.5
Variation in restated working capital	-23.3	-28.6	+5.4	-25.3	+2.1

Overall, the difference between withdrawals from the working capital projected in the initial budget and the actual figure for 2015 amounted to +€16.8 million. Restated to take into account the reclassification of the special fund, the gap is reduced to +€5.4 million.

As a result of rescheduled activities, projections for some operations were revised during the second budget amendment (BR2) in 2015. The situation compared with the last budget for the year is shown below:

In € millions	Actual 2015	BR2 2015	Actual/Budget difference
Result	+6.5	+4.6	+1.9
Cash provided by operations	+15.9	+13.0	+2.9
Variation in working capital	-11.8	-29.9	+18.1
Variation in restated working capital	-23.3	-29.9	+6.6

The budget execution gap was due to:

- an ongoing volume of operations not completed in 2015 in the amount of €3.6 million, excluding the property project, due in particular to delays in:
  - the construction of Building Z at Le Vésinet (€1.0 million);
  - the PARISII project for the construction of a facility for contaminated animals (€1.6 million);
  - the MIRCOM project for the installation of an ion micro-beam in the amount of €0.7 million;
  - the CABRI project (€0.8 million);
- the €0.3 million decrease in provisions;
- the impact of the change of method in the recognition of CABRI income on a percentage of completion basis, which proved faster than projected, leading to an increase of €1.8 million.

Furthermore, the construction of Building O1 at Fontenay-aux-Roses led to expenditures initially scheduled for 2016 being brought forward to 2015. This was financed by cash made available, conversely, by the postponement of certain projects in the amount of €2.6 million.

Lastly, the residual budget balance at the end of 2015 can be used to add €1.8 million to the working capital. This will be proposed to compensate for the €1.7 million drop in the grant received under Budget Program 190.

In € millions	Actual 2015 level	Budget 2015 level	Actual/Budget difference
Working capital	+24.6	+72	+17.4
Working capital requirement	-51.9	-63.1	+11.3
Cash	+76.4	+70.3	+6.1
Restated cash	+64.9	+70.3	-5.4

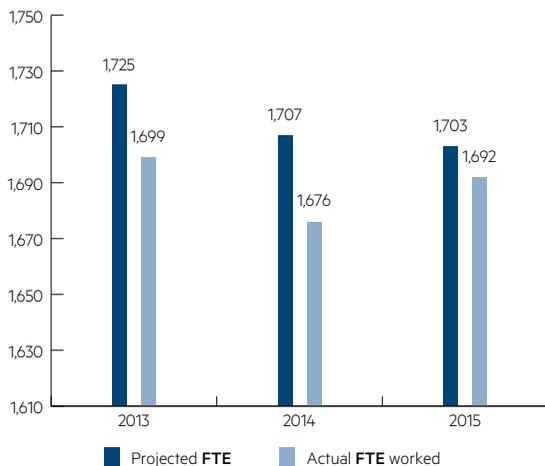
On December 31, 2015, cash stood at €76.4 million, €6.1 million above the Initial Budget 2015 projection of €70.3 million. Restated to take into account the reclassification of the special fund, the cash balance at the end of 2015 stood at €64.9 million (see below).

This results in an increase in the working capital requirement of €11.3 million compared with the budget target.

## WORKFORCE

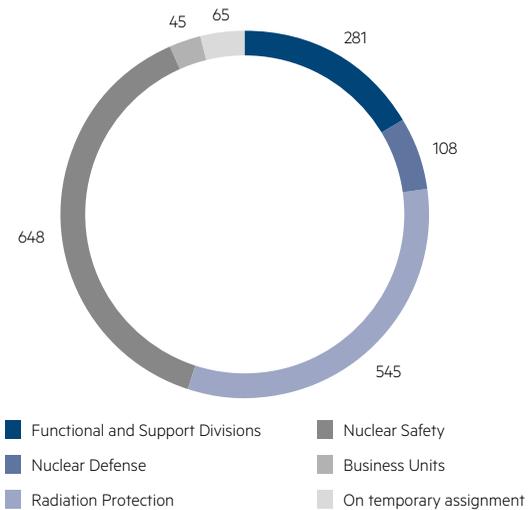
The average number of employees (excluding interns, apprenticeship and government-subsidized contracts) in 2015 was 1,692 FTE worked, compared with 1,703 projected in the initial budget 2015, i.e. 11 below the initial target in the term of FTE worked.

The average number of permanent employees represented 93% of the total, compared with 95% in 2014.

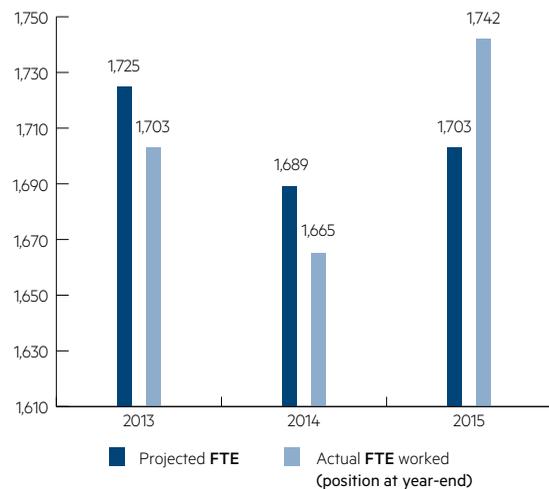


The number of employees connected to IRSN's program development effort represented 79.6% of the 2015 total average workforce.

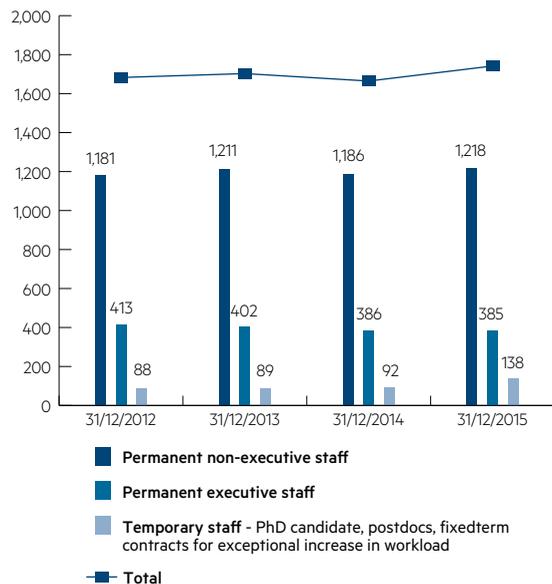
Breakdown of average annual workforce in 2015 ((in FTE worked)



The level of FTEs as at December 31, 2015 was 1,741.5 (excluding interns, apprenticeship and government-subsidized contracts) for an initial budget target of 1,703 FTE worked. This year-end level was essentially due to staff hired on fixed-term contracts to handle exceptional increases in workload and in replacement of permanent staff. FTE numbers at the end of December 2015 was therefore momentarily high and should see a rapid decline in 2016.



As at December 31, 2015, IRSN had 1,603 permanent FTE (compared with 1,572.5 FTE on December 31, 2014), of which 1,218 FTE executive staff and 385 FTE non-executive staff.



## CLEANUP AND DISMANTLING OPERATIONS

IRSN cleanup and dismantling operations involve four specific areas – the PHÉBUS and CABRI research reactors, operated by the CEA, the facilities classified on environmental protection grounds (ICPE) that belong to it, various surplus equipment that is considered radioactive waste, and the cleanup of the Feurs site, which was accidentally polluted.

As at December 31, 2015, the position of operations concerning the first three areas stood at €45.6 million, broken down as follows:

- PHÉBUS regulated nuclear facility (INB 92) and related rod clusters (€79 million);
- CABRI (INB 24) and related waste (sodium) (€31.0 million);
- Valduc regulated nuclear defense facility (INBS 010) and related waste (€3.7 million);
- ICPEs (€3.0 million).

In addition, the cost of cleaning up the Feurs site is estimated at €6.3 million.

These estimates are based on a firm contract for INB 92 and a proposal for the Valduc INBS. The technical and financial assessments for INB 24 are based on the costs incurred for INB 92.

The special fund for the cleanup and dismantling of regulated nuclear facilities (INBs) was reclassified from fixed assets to cash on the DGFIP's recommendation. IRSN's objective is to maintain, at the end of year N, a special fund amount sufficient to reimburse year N operations in N+1, to be processed based on documentation. The use of the special fund for 2014 operations due in 2015 amounted to €5.3 million, including €1.6 million for cleaning up the Feurs site, and €3.7 million for other dismantling and cleanup operations, while the contribution to the fund amounted to €3.6 million. These operations affected the special fund balance, which stood at €11.5 million as at December 31, 2015.

## PROSPECTS FOR 2016

### GENERAL CONTEXT

In recent years, IRSN has been faced with a growing need for assessments and studies, reflecting a net increase in requirements weighing on its work in these areas. This situation is due to:

- requests from IRSN's institutional «clients» (nuclear safety and security authorities – ASN, DSND, HFDS, ministry departments, etc.), mostly relating to regulatory obligations (TSN Act, PCMNIT decree), new industrial projects (EPR, RJH, CIGEO), the need to draw lessons from the Fukushima accident, or new tasks (safety of radioactive sources);
- research investment requirements, particularly in connection with the aging of existing reactors, the safety of innovative reactor technology, and the need for new and greater knowledge of the effects of ionizing radiation on human health and the environment in all its applications, particularly for medical purposes;
- increased public awareness of nuclear and radiological risks, calling not only for a continuation of the transparency initiative in progress for several years now, but also for the deployment of an ambitious policy of opening up to society in response to expectations.

In 2013, IRSN launched a series of measures aimed at enhancing its efficiency by seeking a better balance between the tasks assigned to it and available resources, while guaranteeing the same overall standards in its assessment activities. Nevertheless, its increased workload has led it to estimate the additional resources required at 35 FTE

worked and €6 million by the end of the present three-year budget period, of which 29 FTE worked and €5 million in 2016.

Within this context, the reduction in the grant paid to IRSN under Budget Program 190, resulting in fewer available resources in 2016, will make it necessary to review the projected schedule of assessment activities with all the authorities concerned for 2016. This will lead to some research programs being postponed, or spread over a longer period of time, although existing national or international contractual obligations will be honored.

### **EXPERT ASSISTANCE IN SUPPORT OF THE SAFETY AUTHORITIES AND OTHER PUBLIC AUTHORITIES**

The demand for assessments in support of the Nuclear Safety Authority will be very high in 2016. Major issues in this area will include commissioning of the EPR, the extension of the service life of 900 MWe reactors as they prepare for their fourth ten-yearly outage program, the implementation of all the equipment changes on the 58 reactors currently in operation recommended as part of the initiative to reinforce safety in the wake of the Fukushima accident, and the regulatory obligation for the licensees of all fuel cycle facilities to proceed with a safety review of their installations by 2017.

In addition to the priority assessment activities mentioned above, IRSN carries out a number of recurring activities in connection with its support for ASN. These include monitoring the operation of facilities, analyzing operating experience feedback, working on technical instructions on implementing changes to facility equipment or operating reference documents, examining exceptional arrangements or post-incident situations, and inspection support activities.

Regarding safety at defense-related facilities, IRSN will be actively involved in assessment work connected with the commissioning of *Suffren*, the first nuclear-powered attack submarine in the Barracuda program (scheduled by the licensee for 2019 at the latest), and the related infrastructure. Concerning nuclear security and support for the Senior Defense and Security Official of the Ministry of the Environment, Energy, and the Sea, priority will be given to examining licensee documentation on the implementation of the PCMNIT Decree (No. 2009-1120 of September 17, 2009), which seeks to provide facilities with better protection against malicious acts and terrorism. This concerns not only existing facilities, but also new ones, including the

Flamanville EPR. Working on ASN's inspection program for nuclear facilities and transport will be prominent among IRSN's support and technical assistance missions.

The long-term objectives concerning support for the public authorities will be maintained. These will include: monitoring individual doses due to occupational exposure; actions in connection with the national response plan for major nuclear or radiological accidents; managing the inventory of former uranium mining sites; and nationwide food monitoring.

IRSN will also go on working with the relevant administrative bodies on transposing Council Directive 2013/59 Euratom of December 5, 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionizing radiation.

### **RESEARCH TO ENHANCE NUCLEAR SAFETY AND RADIATION PROTECTION**

In France and elsewhere in Europe, research policy guideline mechanisms are undergoing a change to define a coherent shared vision of research objectives and to set up partnerships to optimize available resources. IRSN is an integral part of this change and helps to implement it by preparing strategic research agendas and working on responses to national and European calls for bids. The year 2016 will see the second European call for projects under the H2020 program, for the period from 2016 to 2018. IRSN will be actively involved in putting forward proposals for research projects, developed on a partnership basis, for the various topics related to its activities (such as Generation II and III reactors, new-generation reactors, waste disposal repositories, and chronic exposure to low-dose radiation). Another key event in 2016 will be the launch of CONCERT (European Joint Programme for the Integration of Radiation Protection Research) on radiation protection governance. The purpose of the program is to contribute to the sustainable integration of national and European research programs in radiation protection. IRSN is one of the organizations designated by the French authorities as program manager for France, along with the French National Research Agency (NRA) and CEA. The first CONCERT call for projects will be issued in 2016.

IRSN will make major investments in the PERFOI 7 and DENOPI programs in 2016. These programs are funded under the Investment in the Future Program (PIA). Both are concerned with studying the effects of loss-of-cooling, the first focusing on fuel in the reactor, the second on spent

fuel stored in the fuel cooling pool. Concerning the aging of facilities, IRSN will develop a new experimental platform as part of the European INCEFA project. With the prospect of extending the service life of existing French nuclear power plants, the platform will study how physical-chemical conditions prevailing in the reactor coolant system of pressurized water reactors (PWRs) affect the steel components in the system. IRSN will also develop an experimental platform to conduct research into the effects of aging on the performance (in terms of leaktightness and mechanical strength) of the concrete walls of PWR containment buildings.

With the CABRI reactor being commissioned following extensive renovation and adaptation work funded by IRSN, it will be possible in 2016 for IRSN to carry out the final test phases to ensure its capacity to conduct the CIP experiment program, scheduled as from 2017. These tests are required for obtaining the final regulatory licenses.

Regarding radiation protection and human health, IRSN is to have new experimental facilities to carry out research on contamination by inhaled or ingested radioactive substances, and to irradiate biological samples down to the cellular scale. The new facilities will be open to the scientific community as a whole. In 2016, IRSN will take part in three new EU-funded research projects focusing on the impact of a nuclear accident. The first project, SHAMISEN, will aim

to produce recommendations for medical and psychological monitoring of the affected population. The second, CATHYMARA, coordinated by IRSN, will seek to define strategies for thyroid exposure assessments. The third, HARMONE, will be aimed at refining existing models for simulating atmospheric dispersion of radioactive release.

#### **OPENING UP TO SOCIETY AND TRANSPARENCY**

Regarding openness and transparency, IRSN will carry out targeted action in line with its commitments in the performance target agreement for 2014-2018, aimed at a) improving its openness to society at grassroots level (by actively involving local stakeholders in regional radiological surveys, raising local awareness of issues relating to post-accident situations, issues relating to radon exposure, etc.), and b) supporting efforts to build social stakeholders' skills by encouraging technical dialogue on safety cases (extending the service life of 900 MWe reactors, documentation on the commissioning of the Flamanville EPR, etc.). In accordance with the provisions of Article 186 of the Act on energy transition for green growth, IRSN will publish its assessments produced at the request of a public authority or the Nuclear Safety Authority, in consultation with the authority concerned. This is not the case for assessment concerning national defense.

# FINANCIAL STATEMENTS AND APPENDIX TO THE ANNUAL ACCOUNTS

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# INCOME STATEMENT

In € thousands	Notes	Fiscal year 2015	Fiscal year 2014
<b>OPERATING INCOME</b>			
Revenue	Note 2	41,119	35,295
Research work		11,955	9,857
Service provision		23,724	19,650
Other services		5,440	5,789
Operating grant	Note 3	171,060	182,475
Operators' contribution	Note 3	62,519	53,045
Write-backs on depreciation and provisions		22,410	20,776
Expense transfer		143	294
Other operating income		3,502	1,429
<b>Total I</b>		<b>300,753</b>	<b>293,314</b>
<b>OPERATING EXPENSES</b>			
Outside expenses for the fiscal year	Note 4	113,509	114,083
Taxes, duties, and similar payments	Note 5	7,995	6,779
Personnel expenses	Note 6	136,305	133,383
Depreciation and provisions	Note 7	30,002	37,998
Other operating expenses		3,882	2,742
<b>Total II</b>		<b>291,693</b>	<b>294,985</b>
<b>OPERATING INCOME</b>		<b>9,060</b>	<b>(1,671)</b>
<b>INVESTMENT INCOME</b>			
Other investment income		13	13
Foreign exchange gains		43	15
Gains on sales of short-term investments		-	38
Write-backs on investment contingency and loss provisions		-	2
<b>Total III</b>		<b>55</b>	<b>68</b>
<b>FINANCIAL CHARGES</b>			
Interest on borrowing and debts		582	601
Interest on current accounts and deposits		10	12
Foreign exchange losses		64	35
Financial expenses		-	-
<b>Total IV</b>		<b>656</b>	<b>648</b>
<b>FINANCIAL INCOME</b>	<b>NOTE 8</b>	<b>(601)</b>	<b>(580)</b>
<b>INCOME BEFORE INCOME TAXES</b>		<b>8,460</b>	<b>(2,251)</b>
<b>EXTRAORDINARY REVENUE</b>			
In operations		137	76
Book value of assets sold and other capital losses		33	50
Write-backs on provisions/special depreciation allowances for tax purposes		740	511
<b>Total V</b>		<b>911</b>	<b>637</b>
<b>EXTRAORDINARY CHARGES</b>			
In operations		280	1,108
Book value of assets sold and other capital losses		1,873	297
Special depreciation allowances for tax purposes		711	1,483
<b>Total VI</b>		<b>2,864</b>	<b>2,888</b>
<b>EXTRAORDINARY INCOME</b>	<b>NOTE 9</b>	<b>(1,954)</b>	<b>(2,251)</b>
Income tax		-	-
<b>FISCAL YEAR RESULT</b>		<b>6,506</b>	<b>(4,502)</b>

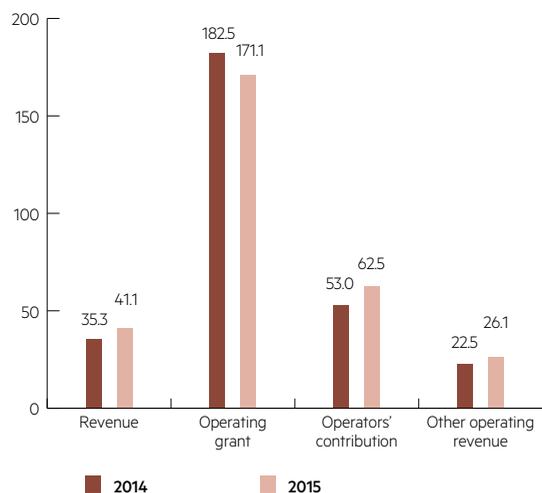
## REVENUE

In € millions	2015	2014	Difference
Revenue	41.1	35.3	+5.8
Operating grant	171.1	182.5	-11.4
Operators' contribution	62.5	53.0	+9.5
Other operating income	26.1	22.5	+3.6
<b>Operating income</b>	<b>300.8</b>	<b>293.3</b>	<b>+7.4</b>
Investment income	0.1	0.1	-0.0
Extraordinary revenue	0.9	0.6	+0.3
<b>TOTAL REVENUE</b>	<b>301.7</b>	<b>294.0</b>	<b>+7.7</b>

IRSN's income rose overall by €7.7 million between 2014 and 2015.

Operating income stood at €300.8 million, up by €7.4 million, or 2.5%, compared with the previous fiscal year.

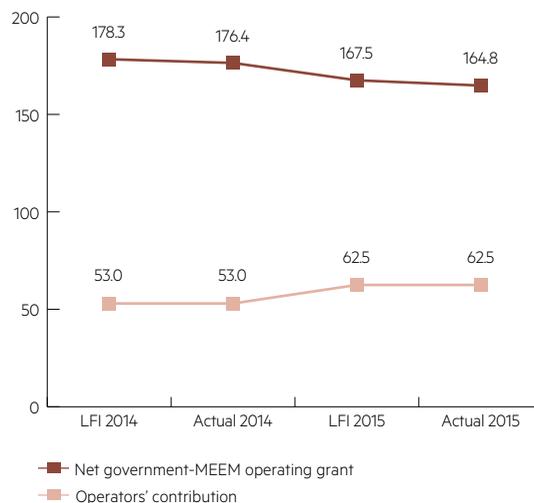
Change in operating income (in €M)



It includes:

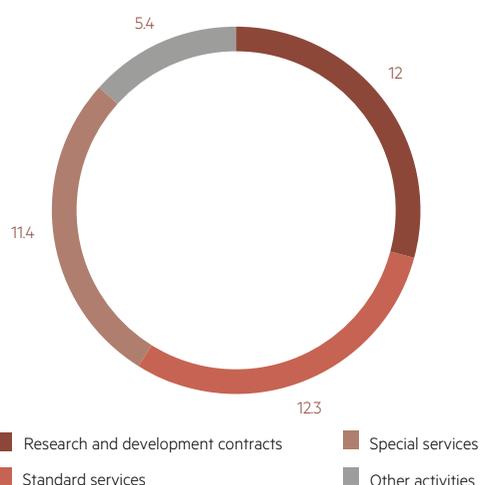
- €171.1 million in operating grants, down sharply by €11.4 million between the two fiscal years, composed of:
  - the €164.8 million public service grant received from the MEEM under Budget Program 190, compared with €176.4 million in 2014. As part of efforts to control public spending, the public service grant allocated to IRSN was reduced by €11.6 million;

SCCP Budget Program 190 and Operators' Contribution (in €M)



- The €3.7 million grant under the Ministry of Defense agreement in connection with Budget Program 212;
- €2.6 million (up by €0.4 million) in other grants from local government authorities;
- the INB operators' contribution, which was up by €9.5 million;
- €26.1 in other operating income, an increase of €3.6 million compared with the previous fiscal year. Write-backs on provisions increased from €1.6 million in 2014 to €22.4 million in 2015. The cancellation of expenses payable on prior fiscal years represents most of the balance of the other operating income;
- and, last, revenue, up by €5.8 million, or 16.4%, to €41.1 million, from standard services, R&D contracts, specific services and other activities.

Sales distribution by product family 2015 (in €M)



Investment income, composed primarily of foreign exchange gains, was stable at €0.1 million, and negligible, despite a structurally positive cash position throughout the year. Under the decree on budget management and public accounting (GBCP), cash management by national public bodies (EPNs) is no longer authorized. Cash is now centralized by the French Treasury Department. As a result, such bodies no longer receive remuneration. Extraordinary income stood at €0.9 million, up by €0.3 million compared with the previous fiscal year.

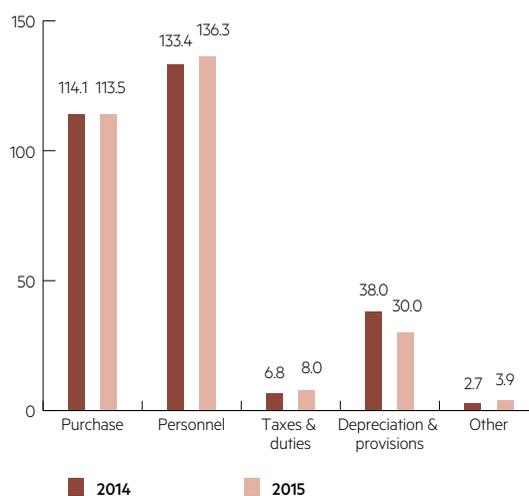
## EXPENDITURE

In € millions	2015	2014	Difference
Purchases	113.5	114.1	-0.6
Personnel	136.3	133.4	+2.9
Fees & taxes	8.0	6.8	+1.2
Depreciation & provisions	30.0	38.0	-8.0
Other operating expenses	3.9	2.7	+1.1
<b>Operating expenses</b>	<b>291.7</b>	<b>295.0</b>	<b>-3.3</b>
<b>Financial charges</b>	<b>0.7</b>	<b>0.6</b>	<b>+0.0</b>
<b>Extraordinary charges</b>	<b>2.9</b>	<b>2.9</b>	<b>-0.0</b>
<b>TOTAL EXPENSES</b>	<b>295.2</b>	<b>298.5</b>	<b>-3.3</b>

IRSN's expenditures fell overall by €3.3 million between 2014 and 2015.

Operating expenses totaled €291.7 million, down by €3.3 million, or 1.1%, compared with the previous fiscal year, broken down as follows:

Change in operating expenses (in €M)



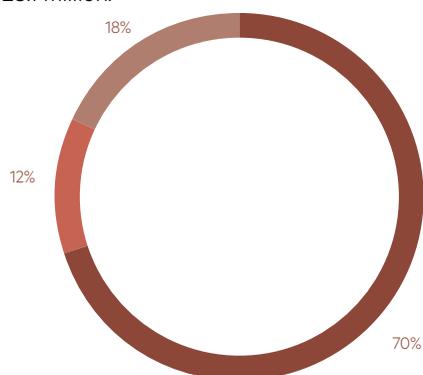
Financial charges were almost stable at €0.7 million. They consisted primarily of interest paid on loans to finance the «Triangle» building.

Extraordinary charges (such as grants made, penalties on contracts and special depreciation allowances for tax purposes) were stable at €2.9 million, and consisted largely of the net value from the disposal of assets (€1.9 million).

# BALANCE SHEET – ASSETS

In € thousands	Notes	31/12/2015			31/12/2014
		Gross	Depreciation & provisions	Net	Net
<b>FIXED ASSETS</b>					
Intangible assets	Note 10	31,412	(23,852)	7,560	9,143
Startup costs		2	(2)	-	-
Concessions, patents, licenses and software		27,661	(23,849)	3,811	5,747
Intangible assets in progress		3,749	-	3,749	3,396
Tangible assets	Note 10	495,909	(199,538)	296,372	280,022
Land		30,589	(244)	30,346	30,402
Constructions		84,082	(42,061)	42,021	45,398
Technical facilities, equipment and tools		268,232	(120,603)	147,630	72,976
Other tangible assets		49,176	(36,630)	12,546	13,419
Tangible assets in progress		63,829	-	63,829	117,826
Financial assets	Note 11	804	-	804	14,014
Special dismantling fund		-	-	-	13,222
Loans		643	-	643	631
Other financial assets		160	-	160	161
<b>TOTAL I</b>		<b>528,125</b>	<b>(223,389)</b>	<b>304,736</b>	<b>303,179</b>
<b>CURRENT ASSETS</b>					
Inventory and work in progress		-	-	-	-
Prepayments and advances on orders		519	-	519	10,510
Accounts receivable	Note 12	50,010	(99)	49,912	63,605
Customer receivables and related accounts	Note 13	37,587	(99)	37,489	41,464
Related receivables	Note 14	12,423	-	12,423	22,142
Other receivables		-	-	-	0
Cash	Note 15	76,424	-	76,424	109,037
Prepaid expenses		787	-	787	767
<b>TOTAL II</b>		<b>127,740</b>	<b>(99)</b>	<b>127,642</b>	<b>183,919</b>
Foreign currency gains or losses		3	-	3	3
<b>GRAND TOTAL</b>		<b>655,868</b>	<b>(223,488)</b>	<b>432,380</b>	<b>487,101</b>

The balance sheet total for the fiscal year ending December 31, 2015 stood at €432.4 million. Gross assets were €528.1 million.

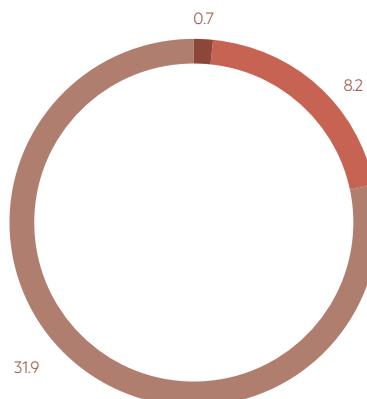


■ Net fixed assets      ■ Cash  
■ Customer receivables

Net fixed assets increased by €1.6 million to €304.7 million, mainly due to the combined effect of:

- the reclassification of the special fund for facility dismantling and cleanup to cash; financial assets were down by €13.2 million, while current assets were affected not only by the reclassification of €13.2 million added to the opening balance, but also the other movements in the year corresponding to the addition of €3.6 million and withdrawal of €5.3 million, giving a net increase of €11.5 million;
- and a €16.4 million increase in net tangible assets. Net increases in fixed assets amounted to €131.9 million, while asset retirements reached €115.5 million, due in particular to the transfer resulting from the commissioning of the CABRI facility for €82.6 million.

#### Acquisition of assets in 2015 (in €M)



■ Intangible assets      ■ Assets under construction  
■ Tangible assets

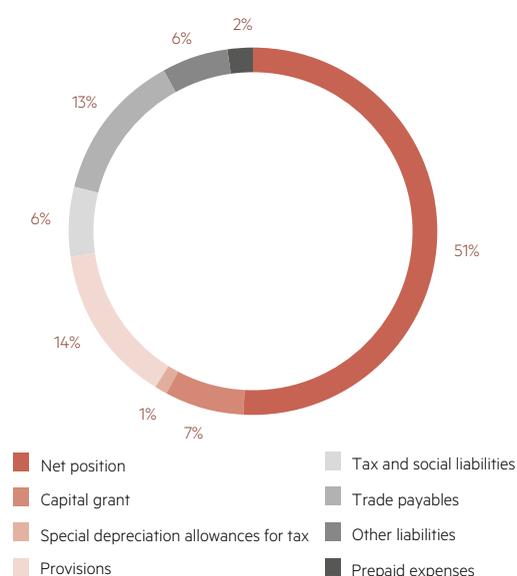
Current assets stood at €127.6 million, down by €56.3 million compared with last year, as a result of the following changes:

- accounts receivable, prepayments and advances, and other receivables were down by €23.7 million;
- cash was affected not only by the reclassification of the special fund for facility dismantling and cleanup from fixed assets to current assets in the amount of €11.5 million (see above), but also by a significant increase in disbursements for the year, induced by a decrease in debts, leading to a €45.8 million drop in cash as at December 31, 2015 on a like basis (excluding the impact of the restatement of the special fund in the amount of €11.5 million).

# BALANCE SHEET – LIABILITIES

In € thousands	Notes	31/12/2015	31/12/2014
<b>EQUITY</b>			
Allowances	Note 16	74,168	83,508
Reserves		90,783	90,783
Retained earnings	Note 17	48,722	53,224
Fiscal year profit or loss		6,506	(4,502)
<b>SUBTOTAL: NET POSITION</b>		<b>220,178</b>	<b>223,013</b>
Capital grant	Note 18	30,668	31,009
Special depreciation allowances for tax purposes	Note 19	5,200	5,229
<b>TOTAL I</b>		<b>256,046</b>	<b>259,251</b>
<b>CONTINGENCY AND LOSS PROVISION</b>			
Contingency provision		378	138
Loss provision		58,515	65,412
<b>TOTAL II</b>	<b>NOTE 20</b>	<b>58,893</b>	<b>65,550</b>
<b>LIABILITIES</b>	<b>NOTE 21</b>		
Debts		14,258	14,739
Bank borrowings	Note 22	14,258	14,739
Operating liabilities		81,756	123,350
Prepayments and advances on orders		152	152
Trade notes and accounts payable	Note 23	54,670	92,124
Tax and social liabilities	Note 24	26,935	31,003
Other operating liabilities		-	71
Other liabilities	Note 25	12,100	17,468
Trade notes and accounts payable		11,647	12,814
Other liabilities		454	4,654
Prepaid expenses		9,326	6,741
<b>TOTAL III</b>		<b>117,441</b>	<b>162,299</b>
<b>GRAND TOTAL</b>		<b>432,380</b>	<b>487,101</b>

The assets above balance with liabilities as follows:



With a profit of €6.5 million and with write-backs on financing of assets changing at a faster pace than the allowances themselves (see *Note 16 in the Appendix*), IRSN's net position fell by €2.8 million, reaching €220.2 million as at December 31, 2015, compared with €223.0 million at the end

of the previous fiscal year. The capital grants item also fell slightly by €0.3 million. It received income from previous fiscal years, allocated to the CABRI program fixed assets in the amount of €0.3 million, and also saw an increase in write-back on the financing of assets in the amount of €0.6 million. Special depreciation allowances for tax purposes stood at €5.2 million as at December 31, 2015, which is stable compared with the previous year. This is explained by a discrepancy between the tax depreciation period normally recorded and the useful lifetime and, thus, the period for depreciation on the replacement value of certain assets. Contingency and loss provisions stood at €58.9 million, down by €6.7 million compared with the December 31, 2014 balance. This reduction was due largely to the use of the provision for the cleanup and dismantling of the Feurs and PHÉBUS facilities. Long-term capital fell by €9.9 million to €314.9 million as at December 31, 2015. Debt fell by €44.9 million, from €162.3 million in 2014 to €117.4 million as at December 31, 2015. This was largely due to a €41.6 million drop in operating liabilities. Prepaid income rose by €2.6 million to €9.3 million. Of that amount, €9.0 million was due to the change in method for recording revenue from the CABRI program. The new method, in place since fiscal year 2014, is based on percentage of completion, and not on collection.

# STATEMENT OF CHANGES IN FINANCIAL POSITION

In € thousands	Fiscal year 2015	Fiscal year 2014
<b>SOURCES OF CASH</b>		
Fiscal year net profit or loss	6,506	(4,502)
Increase/decrease in depreciation	30,713	39,481
Increase/decrease in impairments and provisions	(13,149)	(10,320)
Portion of capital grant recorded in income statement	(10,001)	(10,969)
Losses/gains on disposal of assets	1,871	287
<b>CASH PROVIDED BY OPERATIONS</b>	<b>15,939</b>	<b>13,977</b>
Disposal of assets	2	3
Other sources	109	5,838
Increase in equity	320	86,318
Increase in other capital	-	-
Increase in long-term debt	68	71
<b>TOTAL SOURCES OF CASH (A)</b>	<b>16,438</b>	<b>106,207</b>

In € thousands	Fiscal year 2015	Fiscal year 2014
<b>USES OF CASH</b>		
Acquisition of tangible and intangible assets	40,805	126,849
Acquisition of financial assets	(13,102)	3,838
<b>ACQUISITIONS OF FIXED ASSETS</b>	<b>27,703</b>	<b>130,687</b>
Deferred charges	-	-
Long-term debt paid	550	860
Reductions in equity	-	-
Decrease in other capital	-	-
<b>TOTAL USES OF CASH (B)</b>	<b>28,253</b>	<b>131,546</b>

In € thousands	Fiscal year 2015	Fiscal year 2014
<b>VARIATION IN WORKING CAPITAL (C=A-B)</b>	<b>(11,815)</b>	<b>(25,340)</b>
+ Variation in current operating assets	(23,579)	20,318
- Variation in operating liabilities	(39,008)	21,260
<b>VARIATION IN WORKING CAPITAL REQUIREMENTS FROM OPERATIONS</b>	<b>15,430</b>	<b>(942)</b>
+ Variation in other debit balances	(0)	0
+ Variation in other credit balances	(5,368)	1,431
<b>VARIATION IN WORKING CAPITAL REQUIREMENTS NOT FROM OPERATIONS</b>	<b>5,368</b>	<b>(1,431)</b>
<b>VARIATION IN WORKING CAPITAL REQUIREMENTS (D)</b>	<b>20,798</b>	<b>(2,373)</b>
<b>VARIATION IN CASH (E=C-D)</b>	<b>(32,613)</b>	<b>(22,967)</b>
Cash at the start of the period	109,037	
Cash at the end of the period	76,424	
Cash variation	(32,613)	

## WORKING CAPITAL, CASH AND WORKING CAPITAL REQUIREMENT

In € thousands	Actual position on 31/12/2014	Actual movements 2014	Actual position on 31/12/2015
<b>EARMARKED OPERATIONS</b>	<b>12.6</b>	<b>-14.5</b>	<b>-1.9</b>
Property project – Building 01 (Fontenay-aux-Roses)	8.0	-6.2	1.7
Property project – Building Z (Le Vésinet)	11.7	-8.0	3.7
CABRI	5.8	-3.6	2.3
Change of method for recording revenue from the CABRI project (delay)	-12.9	3.3	-9.5
<b>RECURRING OPERATIONS</b>	<b>22.1</b>	<b>0.8</b>	<b>23.0</b>
Special fund	-	11.5	11.5
Delays in other operations	15.6	-8.9	6.7
of which operations allocated to working capital (BR2 2015)		4.5	4.5
of which operations allocated to working capital (BR1 2016)		2.2	2.2
of which operations withdrawn from working capital		-15.6	-15.6
Provisions	6.5	1.7	4.8
<b>AVAILABLE</b>	<b>1.7</b>	<b>1.8</b>	<b>3.5</b>
<b>TOTAL</b>	<b>36.4</b>	<b>-11.8</b>	<b>24.6</b>
<b>TOTAL – RESTATED SPECIAL FUND OPERATION</b>	<b>36.4</b>	<b>-23.3</b>	<b>13.1</b>

Operating capital stood at €24.6 million as at December 31, 2015 compared with €36.4 million on December 31, 2014, down by €11.8 million. The reclassification of the special fund from financial assets to cash resulted in a decrease in working capital of €11.5 million. On a like basis, the decrease in working capital was €23.3 million, while the fund stood at €13.1 million. The fund is intended to cover earmarked expenses scheduled for the following fiscal years, including transactions carried over from the previous year. Expenses earmarked for working capital mainly concerned:

- IRSN's property projects in Le Vésinet and Fontenay-aux-Roses (€5.4 million). Regarding the property project for Building 01 at Fontenay-aux-Roses, expenditure of €1.8 million was brought forward to 2015. This was possible owing to cash made available by other projects being postponed. Actual expenditure for the entire property project in 2015 amounted to €15.7 million. As part of the first budget amendment 2016, it will be proposed to reallocate the amount of €1.8 million initially earmarked for the property project, to finance the postponed operations that had allowed some of the expenditure for the property project to be brought forward to 2015;
- the CABRI project, where actual expenditure fell €2.3 million short of the budget target owing to performance delays;
- other projects in the amount of €2.2 million, owing to postponements, excluding projects carried over to 2016, as of the second budget amendment 2015 (€8.3 million);
- provisions subject to rapid disbursement, which stood at €4.8 million;
- savings in the amount of €1.8 million made at year-end 2015 and intended to be used in 2016 to make up for the reduction in the MEEM grant under Budget Program 190 for the year, further to an amendment in the finance bill (PLF) for 2016. A withdrawal from working capital will be proposed for this purpose as part of the first budget amendment 2016.

The level of working capital has also been impacted by the fact that CABRI income is now recognized on a percentage of completion basis. Working capital is thus pledged on future income from the CABRI project in the amount of €9.5 million. Actual receipt of these future resources will make it possible to rebalance the level of working capital in the medium term.

In € millions	Level 2015	Level 2014	Difference 2015/2014
Working capital	+24.6	+36.4	-11.8
Working capital requirement	-51.9	-72.7	+20.8
Cash	+76.4	+109.0	-32.6
Restated cash	+64.9	+109.0	-44.1

Cash as at December 31, 2015 stood at €76.4 million, down by €32.6 million compared with the previous fiscal year, or down by €44.1 million excluding the reclassification of the special fund to cash. Improved efficiency in the reconciliation of expenses payable on previous fiscal years, and tighter management control at the end of the year, caused a drop in the year-end cash level, although end-of-year disbursements remained structurally high, particularly because of the annual time frame and the arrival at year-end of invoices from some suppliers. Available cash, which

stood at €64.9 million, excluding the special fund, should see a further drop of about €25 million in 2016 with the settlement of a dispute with CEA on CABRI operating costs. Working capital requirements were executed at -€51.9 million at year-end 2015. The €20.8 million rise in working capital requirements was due to a €15.4 million increase in trade working capital requirements (operating liabilities decreased faster than current asset receivables) and to a €5.4 million rise in non-trade working capital. It should be pointed out that IRSN's working capital requirement is structurally negative because of the way the SCSP public service grant is paid (in arrears each quarter) and the operators' contributions are received (during the second quarter). In addition, a significant portion of IRSN's expenses is derived from charge backs by CEA (including site agreements, CABRI operation and experimentation, and Valduc operation), which produces an additional de facto delay in disbursements. The €35 million drop in operating liabilities recorded was due in particular to the settlement of disputes with our partner, CEA, and is therefore set to last. At a less significant level, advance payments to suppliers (€2.2 million) were made in readiness for the switchover of the accounting system to GBCP mode.

# INCOME STATEMENT SUBTOTALS

In € thousands	Fiscal year 2015	Fiscal year 2014
Revenue	41,119	35,295
- Purchase cost of goods	-	-
+ Operating grants	171,060	182,475
+ Operators' contribution	62,519	53,045
<b>FISCAL YEAR PRODUCTION</b>	<b>274,698</b>	<b>270,816</b>
- Outside expenses	113,509	114,083
<b>ADDED VALUE</b>	<b>161,189</b>	<b>156,733</b>
- Taxes	7,995	6,779
- Personnel expenses	136,305	133,383
<b>OPERATING INCOME BEFORE INTEREST</b>	<b>16,889</b>	<b>16,571</b>
+ Write-backs, expense transfer	22,554	21,070
+ Other income	3,502	1,429
- Depreciation and provisions	30,002	37,998
- Other expenses	3,882	2,742
<b>OPERATING INCOME</b>	<b>9,060</b>	<b>(1,671)</b>
+ Investment income	55	68
- Financial charges	656	648
<b>INCOME FROM CONTINUING OPERATIONS BEFORE INCOME TAXES</b>	<b>8,460</b>	<b>(2,251)</b>
+ Extraordinary revenue	911	637
- Extraordinary charges	2,864	2,888
<b>EXTRAORDINARY INCOME</b>	<b>(1,954)</b>	<b>(2,251)</b>
- Income tax	-	-
<b>FISCAL YEAR RESULT</b>	<b>6,506</b>	<b>(4,502)</b>

# APPENDIX

## TO THE ANNUAL ACCOUNTS

### Note 1 – Accounting principles and valuation methods

IRSN's financial statements for fiscal year 2015 were prepared in accordance with the following standards, principles and methods:

- regulation No. 2014-03 of June 5, 2014 of France's national accounting standards body (*Autorité des normes comptables*) on the general accounting plan, approved by the Order of September 8, 2014 and published in the French Official Journal on October 15, 2014;
- instruction No. 02-060-M95 of July 18, 2002 on the budgetary, financial and accounting regulation of national publicly owned industrial and commercial bodies; and,
- accounting standards applicable to organizations mentioned under paragraphs 4 to 6 of Article 1 of Decree No. 2012-1246 of November 7, 2012 on budget management and public accounting, approved by the Order of July 1, 2015, and published in the French Official Journal on July 9, 2015, with advance application as from January 1, 2015.

#### 1.1 – COMPARABILITY OF THE ACCOUNTS

The implementation of Decree No. 2012-1246 of November 7, 2012 on budget management and public accounting has modified the regulations applicable to IRSN's special fund. In particular, the decree forbids organizations coming within its scope to make investments as from June 2014, and lays down the principle whereby public bodies may only have a single cash deposit account with the Treasury Department. All IRSN's securities were therefore liquidated and the credits left in its cash deposit account.

As a result, the special fund is no longer booked under financial assets, but has been reclassified under current cash assets since December 31, 2015. This has led to a €11.5 million increase in cash and working capital at year-end 2015, and means that the Board of Director's objective of separating cash from the fund is no longer met. Work is

therefore in progress to develop a new mechanism for the special fund on the following basis:

- acknowledging IRSN's obligations regarding long-term expenses relating to the cleanup and dismantling of nuclear facilities (INBs) that belong to and are operated by CEA exclusively for IRSN, as well as for the cleanup of other facilities that may or may not be classified on environmental protection grounds (ICPEs);
- securing the financing of these future expenses in the spirit of the Act of June 28, 2006 on the creation of special funds by the licensees of nuclear facilities;
- ensuring the traceability and control of movements on the future fund.

#### 1.2 – VALUATION PRINCIPLES AND METHODS (OPTIONS, DEROGATIONS, EXCEPTIONS)

##### 1.2.1 – Tangible and intangible assets

###### Valuation of the entry cost

Tangible and intangible assets are valued at the historic purchase or production cost excluding financial charges and administration costs. Intangible assets include patents, licenses and software purchased, as well as software created or developed. Nuclear facilities controlled jointly with CEA (the CABRI experimental reactor) are included in IRSN's fixed assets in proportion to the control of the asset, in application of the DGFIP Instruction No. 14-0003 of January 31, 2014.

Some equipment (nuclear facilities operated by CEA and facilities classified on environmental protection grounds (ICPEs)) used by IRSN are entered as tangible assets under «Dismantling assets» as a double entry counterpart of the provision for the estimated total cost of end-of-cycle operations, once the facility comes into active service. This asset forms an integral part of the cost price of the corresponding facilities and is depreciated in accordance with the depreciation schedules drawn up for each facility. These assets are valued, symmetrically with the corresponding provisions, based on technical information that is regularly revised.

The assets provided by the government under usage agreements have been valued in the accounts on the basis of valuation at fair value determined in 2013 by France Domaine.

External financing of assets is managed in application of the Instruction of December 18, 2012 (BOFIP-GCP 13 005 of January 31, 2013).

Research and development costs, regardless of outcome, are treated as expenditure for the fiscal year.

IRSN uses the component-based approach for very large investments in excess of €10 million.

### Depreciation

Intangible assets are depreciated over their economic life or according to their probable conditions of use, on a straight-line basis and at the rates applied to these categories of asset, not exceeding a period of five years.

Tangible assets are depreciated in accordance with depreciation schedules drawn up on the basis of the economic life or according to the probable conditions of use of the asset, on a straight-line basis and at the rates usually applied to these asset categories. Depreciation in the "Land" row corresponds to the depreciation of the development of these investments.

The main depreciation times used for new equipment are as follows:

- infrastructure: 10 years;
- heavy-duty buildings: 20 to 30 years;
- light buildings: 10 to 20 years;
- general installations: 10 years;
- fixtures: 5 to 10 years;
- equipment: 5 to 7 years;
- tools: 3 to 5 years;
- furniture, small equipment items and computer equipment: 3 to 5 years.

For second-hand assets, the depreciation times are reduced by half.

The special depreciation allowance for tax purposes is used as necessary and corresponds to the difference between depreciation on replacement value and legally accepted depreciation.

### Impairment

Intangible and tangible assets are subject to impairment where events or circumstances make their value in use less than the net accounting value over the long term.

### 1.2.2 – Financial assets

Financial assets are valued at their historic cost.

### 1.2.3 – Inventory and work in progress

Given the insignificance of this item, IRSN does not estimate the value of inventories of materials or supplies of consumables. These purchases are treated entirely as expenditure for the fiscal year.

Work in progress and finished products for research contracts or service orders are treated as accrued income as and when the services are provided.

### 1.2.4 – Receivables

Receivables are depreciated on a case-by-case basis depending on the risk of non-recovery.

### 1.2.5 – Investment securities

IRSN does not hold any transferable securities.

### 1.2.6 – Contingency and loss provision

A provision is set up in cases where there is an obligation towards a third party on the account-closing date. This obligation may be legal, contractual or implicit and must be subject to a probable outflow of resources to the third party which IRSN can estimate with an adequate degree of reliability.

No provision is made for contingent liabilities that correspond to an obligation that is neither certain nor likely on the account-closing date. Information is provided in the Appendix if they are significant.

IRSN acts as its own insurer with respect to compensation for employees who have lost their job. A provision has thus been made based on the residual compensation period for beneficiaries registered as at December 31 of that year.

No provision is made for IRSN's commitments towards its staff regarding severance pay on retirement; instead these are listed as off-balance sheet commitments.

Based on the delay noted at closing in settling our customers' receivables, a provision has been established in the amount of:

- 25% of the amount of the receivable when the delay is less than 6 months;
- 50% for a delay between 6 and 12 months;
- 75% for a delay between 12 and 18 months;
- 100% for a delay in excess of 18 months.

The provision for the cleanup and dismantling of facilities used by IRSN corresponds to the total cost of the operation where IRSN is the facility licensee (ICPEs) or to the portion attributable to it in connection with its participation in a program in which CEA is the nuclear licensee (of an INB). In view of the immediacy of the degradation, these provisions are made as soon as the facility commences active operation (CRC Regulation No. 2004-06 and CNC Notice No. 2005-H). Provisions are offset on the assets side of the balance sheet as "Dismantling assets."

The assessment of the cost to clean up and dismantle the facilities is based on methodologies that can provide the best estimate, at any moment, of the operations' costs and time frame. These estimates are based on agreements signed with the service providers, internal assessments based on an inventory of equipment items and their projected radiological situation, and successive studies used to assess cleanup and dismantling costs with an increasingly small margin of uncertainty.

These estimates incorporate the following main assumptions:

- an inventory of the costs of bringing the facility to decommissioning level, generally and without specific constraints, based on cleanup of standing civil engineering infrastructure, with all nuclear waste areas reclassified as conventional waste areas. The final state of the facilities to be dismantled (buildings and soils) is a baseline assumption for developing the dismantling scenario and estimating the cost;
- the assessment of the expenses based on projected costs, which take into account subcontracting, staff costs, radiation protection costs, consumables, equipment, processing

of associated waste, transportation and final disposal at Andra. The assessment also takes into account a portion of the technical support costs of the entities responsible for the dismantling operations;

- some waste from former experiments could not be processed as it was generated because conditioning facilities were not available at that time. It will be retrieved and conditioned in accordance with methods and technologies approved by the French safety authorities;
- some of these projected costs are based on firm, non-adjustable quotes signed with the licensee of the facilities. Consequently, no assumption has been made for inflation in determining these quotes;
- these provisions are not discounted as the organization is not authorized to have interest-bearing investments.

The assessments used for end-of-cycle provisions are, at the closing date of the accounts for the fiscal year, the best assessment of the resources needed to carry out its current obligations to dismantle and clean up its facilities. These estimations nevertheless present external risks, such as CEA's performance of operations under contractually defined conditions, and changes in the regulatory framework defined by the Nuclear Safety Authority (ASN).

### **1.2.7 – Debts**

IRSN's commitments towards its staff for expired paid leave not taken, paid leave accrued but not yet taken within the period, and leave entitlement recorded by the staff in an accumulated leave time savings account are recorded as debts at their gross value plus any social security contributions and tax charges payable by the employer.

# NOTES ON THE INCOME STATEMENT

## Note 2 – Sales

Sales correspond to the research and services invoiced by IRSN to third parties within the context of its programs or service provision. Sales are booked on completion of the work in most cases, but for some multiyear contracts they are booked in advance.

In € thousands	Fiscal year 2015	Fiscal year 2014
Research and development contracts	11,955	9,857
Standard services	12,277	13,248
Special services	11,448	6,402
Other activities	5,440	5,789
<b>TOTAL</b>	<b>41,119</b>	<b>35,295</b>

Sales fall into four main categories:

- research co-funding contracts totaled €12.0 million, an increase of €2.1 million compared with the previous fiscal year. EDF (€6.9 million), AREVA (€1.8 million), European Union (€0.8 million), CEA (€0.5 million) remain the principal partners;
- standard services decreased from €13.2 million in 2014 to €12.3 million in 2015. They primarily involve the activities of the IRSN Dosimetry Laboratory, (€10.5 million, down by €0.1 million compared with the previous year), revenue associated with radio-toxicology analyses for €0.8 million (up by €0.1 million), and training services, which dropped from €1.1 million to €0.3 million;
- special services include various services and studies that are not co-funded. These amounted to €11.4 million (up by €5.0 million), of which €1.9 million for RISKAUDIT;
- the other activities generated sales of €5.4 million compared with €5.8 million in 2014, and primarily involve invoicing for personnel on temporary assignments (€5.0 million).

## Note 3 – Budgetary operating revenue

This item includes the public service grants received from the government and the income from the contribution (see *Article 96 of the 2010 Revised Budget Act*) paid by licensees of regulated nuclear facilities (INBs) for the fiscal year and allocated to the financing of operating expenses for the fiscal year.

In € thousands	Notes	Fiscal year 2015	Fiscal year 2014
Government operating grants			
Budget Program 190	(a)	164,753	176,380
Budget Programs 212 and 217	(b)	3,660	3,819
Grants from public authorities		2,647	2,276
Other operating grants		-	-
Operators' contribution	(c)	62,519	53,045
<b>TOTAL</b>		<b>233,578</b>	<b>235,520</b>

(a) The grant paid under Budget Program 190 by the Ministry of Environment was reduced by €11.6 million between 2014 and 2015. This change was due to:

- a budget execution shortfall of €2.8 million for 2015 resulting from the cancellation of funds during the year;
- the change in appropriations approved for IRSN between the 2015 Initial Finance Act (€167.5 million) and the 2014 Revised Budget Act (€176.4 million), representing a €8.9 million drop net of contingency reserves. This sharp decline was part of an overall effort to reduce public spending, bearing in mind that the contribution paid to IRSN by the licensees of regulated nuclear facilities increased by €2.6 million between 2014 and 2015.

(b) This grant is intended for financing expertise in nuclear propulsion for the Ministry of Defense.

(c) The contribution was established as of fiscal year 2011 and is paid by the licensees of regulated nuclear facilities, a list of which is drawn up by the Nuclear Safety Authority. It was increased by €2.6 million to reach €62.5 million in 2015 to offset the drop in the grant under Budget Program 190 in the same amount. EDF, CEA, and Areva remain the chief contributors, with respective contributions of €48.4 million, €7.3 million and €2.9 million.

## Note 4 – Expenses for the fiscal year

Expenses for the fiscal year are broken down as follows:

In € thousands	Fiscal year 2015	Fiscal year 2014
<b>SUBCONTRACTING PURCHASES</b>	<b>42,560</b>	<b>45,016</b>
<i>Research purchases (CEA)</i>	14,280	18,390
<i>Research purchases</i>	15,221	15,018
<i>Service purchases</i>	13,059	11,608
<b>PURCHASES OF MATERIALS AND SUPPLIES NOT STOCKED</b>	<b>9,199</b>	<b>10,395</b>
<i>Purchases of equipment and works</i>	1,143	1,747
<i>Other purchases of materials and supplies not stocked</i>	8,057	8,649
<b>OUTSIDE SERVICES</b>	<b>61,749</b>	<b>58,672</b>
<i>External subcontracting</i>	25,533	24,783
<i>Rental and hire costs</i>	2,300	1,916
<i>Maintenance and repairs</i>	14,824	13,789
<i>Insurance</i>	974	627
<i>Documentation</i>	1,753	1,732
<i>Temporary workers</i>	3,238	3,313
<i>Fees</i>	435	408
<i>Advertising and publications</i>	210	161
<i>Transport</i>	478	512
<i>Travel and entertainment expenses</i>	7,317	6,975
<i>Postage and telecommunication costs</i>	2,638	2,602
<i>Bank charges</i>	20	11
<i>Other</i>	2,030	1,845
<b>TOTAL</b>	<b>113,509</b>	<b>114,083</b>

Purchases of goods and services saw a slight downturn between 2014 and 2015, falling by €0.6 million to €113.5 million. Core business subcontracting fell by €2.5 million to €42.6 million.

## Note 5 – Taxes, duties, and similar payments

Taxes, duties and similar payments are broken down as follows:

In € thousands	Fiscal year 2015	Fiscal year 2014
<b>ON REMUNERATION</b>	<b>5,824</b>	<b>5,603</b>
<i>Employment tax</i>	1,797	1,728
<i>Apprenticeship tax</i>	689	676
<i>Travel payments</i>	2,181	2,057
<i>Other taxes and duties on remuneration</i>	1,157	1,142
<b>OTHER TAXES, DUTIES, AND SIMILAR PAYMENTS</b>	<b>2,171</b>	<b>1,177</b>
<i>Real estate taxes</i>	500	505
<i>Office taxes</i>	84	98
<i>Company vehicle taxes</i>	112	151
<i>Non-recoverable taxes over a combined perimeter</i>	576	470
<i>Other</i>	898	(47)
<b>TOTAL</b>	<b>7,995</b>	<b>6,779</b>

## Note 6 – Personnel expenses

Personnel expenses can be analyzed as follows:

In € thousands	Fiscal year 2015	Fiscal year 2014
Wages and salaries	92,710	90,581
Social security contributions	43,596	42,802
<b>TOTAL</b>	<b>136,305</b>	<b>133,383</b>

The entitlements accrued by employees in respect of paid leave and accumulated leave time saving accounts (CET) have been recorded in full under expenses payable at their gross value plus estimated costs.

## Note 7 – Depreciation and provisions and write-backs of depreciation and provisions

Depreciation and provisions and write-backs on depreciation and provisions can be broken down as follows:

In € thousands	DEPRECIATION & PROVISIONS		WRITE-BACKS	
	Fiscal year 2015	Fiscal year 2014	Fiscal year 2015	Fiscal year 2014
<b>ON FIXED ASSETS</b>				
Depreciation of intangible assets	2,667	2,646	-	-
Depreciation of tangible assets	22,123	29,001	-	-
<b>ON CURRENT ASSETS</b>				
Impairments of customer receivables	99	10	12	82
<b>PROVISIONS</b>				
Contingency and loss provision	5,114	6,340	12,396	9,725
<b>PORTION OF CAPITAL GRANT RECORDED IN INCOME STATEMENT</b>				
	-	-	<b>10,001</b>	<b>10,969</b>
<b>TOTAL</b>	<b>30,002</b>	<b>37,998</b>	<b>22,410</b>	<b>20,776</b>

Note that since 2014, the portion of the capital grant recorded in the income statement, previously booked as extraordinary income, has been reclassified under write-backs of depreciation and provisions. This item corresponds to the deduction made from “capital grants received” in line with the lifetime or length of use of the capital assets financed.

## Note 8 – Financial income

The financial income presented below was stable, at -€0.6 million in 2015.

In € thousands	Notes	Fiscal year 2015	Fiscal year 2014
<b>INVESTMENT INCOME</b>		<b>55</b>	<b>68</b>
Income from sales of investment securities		-	38
Income from other receivables		13	13
Foreign exchange gains		43	15
Write-backs on investment contingency and loss provisions		-	2
Other investment income		-	-
<b>FINANCIAL CHARGES</b>		<b>656</b>	<b>648</b>
Interest on borrowing and debts	(a)	582	601
Interest on current accounts and deposits		10	12
Foreign exchange losses		64	35
Financial expenses		-	-
<b>FINANCIAL INCOME</b>		<b>(601)</b>	<b>(580)</b>

(a) This item includes the interest paid on a loan taken out with Crédit Agricole.

## Note 9 – Extraordinary income

This item recorded a loss of €2.0 million in 2015, which can be broken down as follows:

In € thousands	Notes	Fiscal year 2015	Fiscal year 2014
<b>EXTRAORDINARY REVENUE</b>		<b>911</b>	<b>637</b>
Extraordinary revenue from management operations		137	76
Gains on sales of assets		2	3
Capital grants strictly for the period		32	47
Write-backs on provisions/special depreciation allowances for tax purposes	(a)	740	511
<b>EXTRAORDINARY CHARGES</b>		<b>2,864</b>	<b>2,888</b>
Extraordinary charges on management operations		280	1,108
Net accounting value of assets disposed of	(b)	1,873	291
Other extraordinary charges		0	6
Special depreciation allowances for tax purposes	(c)	711	1,483
<b>EXTRAORDINARY INCOME</b>		<b>(1,954)</b>	<b>(2,251)</b>

(a) Following the 2015 extension of the period of depreciation on the replacement value of certain assets, IRSN recorded write-backs on special depreciation allowances of €0.7 million.

(b) A review of IRSN's fixed assets led to a large number of asset retirements in 2015.

(c) Following the shortening of the period of depreciation on the replacement value of certain assets in 2015, IRSN recorded special depreciation allowances for tax purposes of €0.7 million.

# NOTES ON THE BALANCE SHEET

## ASSETS

### Note 10 – Intangible and tangible assets

In accordance with standards 5 and 6 of the accounting standards applicable by public bodies relating to fixed assets, the Board of Directors decided on a €1,500 unit simplification threshold for the recognition of assets to be capitalized. In the accounts closed on December 31, 2015, this led to a €6.7 million decrease in gross assets and a €6.4 million reduction in depreciation. This increased income for the period by €0.3 million.

The intangible and tangible asset flows, together with the corresponding depreciations and provisions, are as follows:

In € thousands	31/12/2014	Increases	Decreases	31/12/2015
<b>INTANGIBLE ASSETS</b>				
Gross value	31,002	6,257	5,847	31,412
Startup costs	2	-	-	2
Concessions, patents, licenses and software	27,604	5,731	5,674	27,661
Intangible assets in progress	3,396	526	174	3,749
Depreciation	21,859	7,510	5,517	23,852
Startup costs	2	-	-	2
Concessions, patents, licenses and software	21,857	7,510	5,517	23,849
Intangible assets in progress	-	-	-	-
<b>SUBTOTAL</b>	<b>9,143</b>	<b>-1,253</b>	<b>330</b>	<b>7,560</b>
<b>TANGIBLE ASSETS</b>				
Gross value	468,993	158,718	131,802	495,909
Land	30,652	-	63	30,589
Constructions	84,483	17,104	17,505	84,082
Technical facilities, equipment and tools	182,693	89,355	3,816	268,232
Other tangible assets	53,339	3,409	7,572	49,176
Tangible assets in progress	117,826	48,849	102,846	63,829
Depreciation	188,971	26,838	16,272	199,538
Land development	250	40	46	244
Constructions	39,084	7,871	4,894	42,061
Technical facilities, equipment and tools	109,717	15,094	4,208	120,603
Other tangible assets	39,920	3,833	7,124	36,630
Tangible assets in progress	-	-	-	-
<b>SUBTOTAL</b>	<b>280,022</b>	<b>131,880</b>	<b>115,529</b>	<b>296,372</b>
<b>TOTAL</b>	<b>289,165</b>			<b>303,932</b>

Fixed assets as at December 31, 2014 include:

- commissioning of the CABRI reactor in the amount of €82.6 million;
- fixed assets recorded as a balancing entry to offset provisions, which are not entered in the income statement, set up for the dismantling of facilities used by IRSN, for a gross amount of €52.8 million, depreciated for €27.7 million. The balance of €25.1 million is lower than the balance of €45.7 million of the provision set up in exactly the same way, corresponding to the level of dismantling actually performed.

## Note 11 – Financial assets

The financial assets of €0.8 million include deposits and guarantees paid and loans to staff. As at December 31, 2015, the special fund for the cleanup and dismantling of the facilities used by IRSN was transferred to current cash assets in the amount of €13.2 million (see Note 1 above, «Comparability of the accounts»).

In € thousands	31/12/2015	31/12/2014
Special dismantling fund	-	13,222
Loans	643	631
Other financial assets	160	161
<b>TOTAL</b>	<b>804</b>	<b>14,014</b>

## Note 12 – Maturity of receivables

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

In € thousands	31/12/2015 Gross	Maturing in less than 1 year	Maturing in more than 1 year
<b>FIXED ASSET RECEIVABLES</b>			
Loans	643	5	638
Other financial assets	160	-	160
<b>CURRENT ASSET RECEIVABLES</b>			
Doubtful and disputed trade receivables	117	117	-
Other customer receivables	37,470	37,470	-
Other accounts receivable	12,423	12,423	-
Other receivables	-	-	-
<b>TOTAL</b>	<b>50,814</b>	<b>50,016</b>	<b>798</b>

## Note 13 – Customer receivables

At the end of the fiscal year, customer receivables showed a net balance of €37.5 million, compared with €41.5 million the previous year:

In € thousands	Notes	31/12/2015	31/12/2014
<b>GROSS VALUE</b>		<b>37,587</b>	<b>41,476</b>
Customers – sales of goods or services	(a)	28,992	27,824
Customers – holdbacks		31	31
Doubtful and disputed trade receivables		117	15
Customers – invoices to be prepared		8,447	13,606
<b>IMPAIRMENT PROVISION</b>		<b>(99)</b>	<b>(12)</b>
Provision for impairment of customer accounts		(99)	(12)
<b>TOTAL</b>		<b>37,489</b>	<b>41,464</b>

(a) A provision for additional contingencies in the amount of €878,000 was made based on the delay in payment recorded at closing (see Note 20).

## Note 14 – Other receivables

The other receivables can be broken down as follows:

In € thousands	Notes	31/12/2015	31/12/2014
Prepayments and advances to personnel		156	175
Accrued income	(a)	(7,665)	10
VAT		16,983	20,997
Government – accrued income	(b)	2,542	285
Other debtors		407	675
Other receivables		-	0
<b>TOTAL</b>		<b>12,423</b>	<b>22,142</b>

(a) This item mainly includes advance payments on grants, including €5.1 million concerning the French National Research Agency (ANR) and €1.2 million for the European Commission.

(b) Government accrued income is mainly attributable to the National Research Agency (ANR) in the amount of €1.9 million.

## Note 15 – Cash

This item shows the cash position with the *Recette générale des finances* at the closing of the year:

In € thousands	Notes	31/12/2015	31/12/2014
Cash	(a)	76,424	109,037
<b>TOTAL</b>		<b>76,424</b>	<b>109,037</b>

(a) The cash position as at December 31, 2015 was €76.4 million and includes the special fund for cleanup and dismantling of facilities used by IRSN, which was transferred from financial assets to cash in the amount of €13.2 million (see Note 11) in 2015. On a like basis, the cash position fell by €47.8 million between December 31, 2014 and December 31, 2015.

# LIABILITIES

## Note 16 – Allowances

Allowances recorded a balance of €74.2 million as at December 31, 2015, which can be broken down as follows:

In € thousands	Notes	31/12/2014	Allowances	Write-backs	31/12/2015
<b>ALLOWANCES</b>					
Funds not associated with specific assets – Government	(a)	7,425	11,146	4,018	14,554
Asset funds made available – Government	(b)	30,923	-	-	30,923
Original value of asset-related funds – Government	(c)	112,074	-	8,627	103,446
Original value of asset-related funds – ANR/IA	(d)	-	18	-	18
<b>SUBTOTAL</b>		<b>150,422</b>	<b>11,164</b>	<b>12,645</b>	<b>148,941</b>
<b>ADDITIONAL ALLOWANCES</b>					
Write-back of asset funds made available – Government	(e)	(831)	-	416	(1,247)
Write-back of other asset funds	(e)	(66,082)	405	7,849	(73,526)
Write-back of other asset funds – ANR/IA	(e)	-	-	-	(0)
<b>SUBTOTAL</b>		<b>(66,914)</b>	<b>405</b>	<b>8,265</b>	<b>(74,773)</b>
<b>TOTAL</b>		<b>83,508</b>	<b>11,569</b>	<b>20,910</b>	<b>74,168</b>

(a) For the record, in 2014 this item related to the extraordinary allocation paid by the government in 2012, associated with the sale of land at the Le Vésinet site to finance the new Z building at that site. The variation observed between the two fiscal years reflects the reclassification of government capital grants received by IRSN until 2011 as asset-related funds, further to the changes in the chart of accounts concerning the allocation of grants to funded assets.

(b) The assets allocated by the government under the usage agreements and valued in the accounts as at December 31, 2014 (France Domaine valuation) concern the land at Fontenay-aux-Roses, Orsay, Octeville and Le Vésinet.

(c) This item combines the government capital grants that IRSN received until 2011 (gross value). The difference between the two fiscal years is related to the reclassification mentioned under point (a).

(d) This item concerns ANR allowances relating to fixed assets.

(e) The additional allowances correspond to the write-backs of financing of the assets funded by the government.

## Note 17 – Retained earnings

In € thousands	31/12/2015	31/12/2014
Retained earnings carried forward	165,756	165,756
Retained losses carried forward	(117,034)	(112,532)
<b>TOTAL</b>	<b>48,722</b>	<b>53,224</b>

The variation in the «retained earnings» heading corresponds to the allocation of the loss of €4.5 million from the previous year.

## Note 18 – Capital grants

This is essentially an issue of how the external financing of assets is treated in the accounts. Grants received from sources other than the government and allocated to the financing of assets are recorded and written back as the corresponding assets are depreciated. During the 2013 fiscal year, external financing allocated to assets and received from the government were transferred to allowances in application of the instruction of December 18, 2012 (BOFIP-GCP 13 005 of January 31, 2013).

In € thousands	Notes	31/12/2015	31/12/2014
Funds not associated with specific assets – other third parties	(b)	7,683	29,683
Government capital grants		-	-
Other capital grants		-	-
Original value of asset-related funds – Local authorities and national public bodies	(a)	35,292	35,295
Original value of asset-related funds – Other organizations	(c)	22,320	-
Write-backs on asset-related funds – Local authorities and national public bodies	(a)	(34,180)	(33,968)
Write-backs on asset-related funds – Other organizations	(c)	(446)	-
Capital grants recorded in income statement		-	-
<b>TOTAL</b>		<b>30,668</b>	<b>31,009</b>

(a) These items are connected to the capital grants from the transfers from CEA and IPSN, as well as related write-backs on financing.

(b) The €22.0 million decrease in external financing observed as at December 31, 2015 is due to the earmarking of funds for upgrading the CABRI reactor capitalized during the previous fiscal year. It breaks down as follows:

- transfer of -€22.3 million to asset-related funds;

- and +€0.3 million representing the portion of the grant for updating income from CABRI in 2015 recognized on a percentage of completion basis.

(c) External financing allocated to the capitalization of CABRI has been reclassified as asset-related funds in the amount of €22.3 million, together with the related write-backs on financing.

## Note 19 – Special depreciation allowances for tax purposes

In 2013, IRSN reduced the depreciation term of certain assets, which was reflected by the entry in the accounts of special depreciation allowances for tax purposes, with an impact of €5.2 million for the 2015 fiscal year.

## Note 20 – Contingency and loss provision

Contingency and loss provision varied as follows during the year:

In € thousands	Notes	31/12/2014	Allocations in the fiscal year	WRITE-BACKS FOR THE FISCAL YEAR		31/12/2015
				(provision used)	(provision not used)	
<b>PROVISION FOR DISPUTES</b>		<b>138</b>	<b>337</b>	-	<b>97</b>	<b>378</b>
Employment disputes		138	13	-	97	54
Other disputes		-	324	-	-	324
<b>PROVISION FOR FOREIGN EXCHANGE LOSSES</b>		-	-	-	-	-
<b>LOSS PROVISION</b>	(a)	<b>65,412</b>	<b>5,401</b>	<b>10,762</b>	<b>1,537</b>	<b>58,515</b>
Dismantling	(b)	51,016	625	5,901	-	45,741
Cleanup		9,042	-	1,398	-	7,644
Customer risks		929	878	-	929	878
Contribution – Strasbourg INB		319	-	-	-	319
PRP//DGGN expenditure – Teleray		-	140	-	-	140
Riskaudit – Share/losses		250	-	250	-	-
ENSTTI – Share/losses		139	400	139	-	400
AGEFIPH		889	283	281	608	283
Employee profit-sharing		2,145	2,192	2,145	-	2,192
Miscellaneous human resources (of which unemployment compensation provision)		683	884	648	-	919
<b>TOTAL</b>		<b>65,550</b>	<b>5,739</b>	<b>10,762</b>	<b>1,634</b>	<b>58,893</b>

(a) The allocation for the fiscal year includes in particular €625,000 of additional allowance in connection with the dismantling assets, an additional €2,192,000 for staff profit sharing, €878,000 to cover the risks on customer receivables, and €840,000 corresponding to recognition of a provision for projected unemployment compensation paid by IRSN to former employees concerned as at December 31, 2015, as IRSN provides unemployment coverage for its employees.

The write-backs consist in particular of:

- utilization of the provision for dismantling PHÉBUS and other facilities in the amount of €5,901,000 (2015 expenditures);
- use of the provision to clean up the Feurs site (€1,392,000);
- and the write-back of profit-sharing reserve which was fully used this year (€2,145,000).

(b) The provision for dismantling equipment and facilities, which also covers the disposal of contaminated waste, stood at €45.7 million at December 31, 2015 and is made up of:

- the PHÉBUS reactor (INB 92) (€5.5 million);
- the FPT rod assemblies associated with the PHÉBUS facility (€2.4 million);
- the CABRI facility (INB 24) and related waste (€31.0 million);
- the Valduc regulated nuclear defense facility (INBS 010) and related waste (€3.7 million);
- and, ICPEs (€3.0 million).

## Note 21 – Debt maturities

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

In € thousands	31/12/2015 Gross	Maturing in less than 1 year	Maturing in 1 - 5 years	Maturing in more than 5 years
Bank borrowings	14,258	499	2,208	11,551
Prepayments and advances received	152	152	-	-
Trade notes and accounts payable	54,670	54,670	-	-
Tax and social liabilities	26,935	26,935	-	-
Other operating liabilities	-	-	-	-
Trade notes	11,647	11,647	-	-
Other liabilities	454	454	-	-
<b>TOTAL</b>	<b>108,115</b>	<b>94,356</b>	<b>2,208</b>	<b>11,551</b>

## Note 22 – Bank borrowings

As at December 31, 2015, the borrowing situation is as follows:

In € thousands	31/12/2014	Reimbursement	31/12/2015
Crédit Agricole loan	14,669	(479)	14,190
Accrued interest not yet due	71	-	68
<b>TOTAL</b>	<b>14,739</b>	<b>-</b>	<b>14,258</b>

## Note 23 – Trade payables

Trade payables at the end of the fiscal year can be broken down as follows:

In € thousands	31/12/2015	31/12/2014
Suppliers – purchases of goods and services	90	2,112
Suppliers – holdbacks	46	224
Suppliers – expenses payable	54,535	89,789
<b>TOTAL</b>	<b>54,670</b>	<b>92,124</b>

## Note 24 – Tax and social welfare liabilities

At the end of the fiscal year, the accounting situation is as follows:

In € thousands	31/12/2015	31/12/2014
Employee-related liabilities	13,316	13,038
Social organizations	6,688	10,646
VAT	5,643	6,032
Other taxes and duties	1,288	1,288
<b>TOTAL</b>	<b>26,935</b>	<b>31,003</b>

## Note 25 – Other liabilities

The significant elements of this item are as follows:

In € thousands	Notes	31/12/2015	31/12/2014
<b>TRADE NOTES AND ACCOUNTS PAYABLE</b>		<b>11,647</b>	<b>12,814</b>
Suppliers of fixed assets		356	359
Suppliers of fixed assets – holdback		61	492
Suppliers of fixed assets – FNP		-	-
Suppliers of fixed assets – FNP		11,145	11,330
Suppliers of fixed assets – expenses payable		85	632
<b>OTHER LIABILITIES</b>	<b>(A)</b>	<b>454</b>	<b>4,654</b>
<b>TOTAL</b>		<b>12,100</b>	<b>17,468</b>

(a) For the record, this item included €3.8 million in revenue not yet allocated as at December 31, 2014, and for which adjustments have been made with no significant impact on income for the year.

## Note 26 – Other information

### POST-CLOSING EVENTS

None.

### SITUATION WITH REGARD TO CORPORATE TAX

IRSN has a loss to carry over.

The following are excluded: taxable activities and all funding of public service, research and teaching missions, whether or not they are carried out in partnership with public- or private-sector organizations. Conversely, all activities subject to corporate tax correspond to «lucrative» operations, carried out under similar conditions to commercial companies.

The loss to carry over in 2015 was estimated at €57 million.

### OFF-BALANCE SHEET COMMITMENTS

- Retirement commitments (calculated in accordance with IAS 19): €23.6 million gross, or €35.2 million including an estimate of social-security costs.

The following assumptions were made:

- discount rate 1.8%;
- age at retirement: 62 years for non-executive staff and 65 years for executive staff;
- turnover rate used: 2.5%;
- salary increase rate: 2.5%.
- Leasing: none.
- Other off-balance sheet commitments received: 50 bank guarantees to cover holdbacks paid to suppliers in euros totaling €1.3 million.
- On July 7, 2014, IRSN signed a public-private partnership (PPP) for the construction of a building on its Fontenay-aux-Roses site. The contract represents a commitment over 25 years. The total investment is for €42.5 million, of which €6.4 million paid by IRSN was booked as fixed assets in progress as at December 31, 2015. The €36.0 million debt will be booked when the asset is commissioned in 2017, as recommended by the DGFIP (BOFIP-GCP-14001 dated July 21, 2014).

### WORKFORCE

IRSN employed a paid workforce of 1,784 as at December 31, 2015 (excluding work-study program contracts). This figure can be broken down as follows:

- permanent managerial contracts: 1,241;
- permanent non-managerial contracts: 396;
- fixed-term contracts: 147.

# AUDITOR'S REPORT



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## Institut de Radioprotection et de Sécurité Nucléaire (IRSN)

Siège social : 31, avenue de la Division Leclerc - 92260 Fontenay-aux-Roses

### Rapport du commissaire aux comptes sur les comptes annuels

Exercice clos le 31 décembre 2015

Mesdames, Messieurs,

En exécution de la mission qui nous a été confiée par le Ministère de l'économie, de l'industrie et du numérique, nous vous présentons notre rapport relatif à l'exercice clos le 31 décembre 2015, sur :

- le contrôle des comptes annuels de l'IRSN, tels qu'ils sont joints au présent rapport;
- la justification de nos appréciations ;
- les vérifications et informations spécifiques prévues par la loi.

Les comptes annuels ont été arrêtés par votre Conseil d'administration. Il nous appartient, sur la base de notre audit, d'exprimer une opinion sur ces comptes.

## 1 Opinion sur les comptes annuels

Nous avons effectué notre audit selon les normes d'exercice professionnel applicables en France à l'exception du point décrit dans le paragraphe suivant ; ces normes requièrent la mise en œuvre de diligences permettant d'obtenir l'assurance raisonnable que les comptes annuels ne comportent pas d'anomalies significatives. Un audit consiste à vérifier, par sondages ou au moyen d'autres méthodes de sélection, les éléments justifiant des montants et informations figurant dans les comptes annuels. Il consiste également à apprécier les principes comptables suivis, les estimations significatives retenues et la présentation d'ensemble des comptes. Nous estimons que les éléments que nous avons collectés sont suffisants et appropriés pour fonder notre opinion.

Nous formulons une réserve sur le point suivant :

- L'annexe dans la note « 1.2.1- Immobilisations corporelles et incorporelles » précise les modalités de comptabilisation des comptes de l'actif immobilisé. Nos travaux d'évaluation du contrôle interne ont mis en évidence certaines faiblesses ayant trait aux modalités de suivi des immobilisations concernant les exercices 2014 et 2015. Les travaux d'analyse et de renforcement des procédures de suivi et de contrôle interne se rapportant à ces éléments sont en cours et leurs conséquences peuvent potentiellement avoir un impact significatif sur la présentation et l'évaluation des postes correspondants.



Sous cette réserve, nous certifions que les comptes annuels sont, au regard des règles et principes comptables français, réguliers et sincères et donnent une image fidèle du résultat des opérations de l'exercice écoulé ainsi que de la situation financière et du patrimoine de l'établissement à la fin de cet exercice.

Sans remettre en cause l'opinion exprimée ci-dessus, nous attirons votre attention sur la note « 1.1. Comparabilité des comptes » de l'annexe qui expose les changements de présentation comptable du fonds dédié aux opérations de démantèlement et d'assainissement de l'IRSN.

## **2 Justification des appréciations**

En application des dispositions de l'article L.823-9 du Code de commerce relatives à la justification de nos appréciations, nous portons à votre connaissance les appréciations auxquelles nous avons procédé, outre celles ayant conduit à aux réserves mentionnées ci-dessus.

### ***Règles et principes comptables***

Dans le cadre de notre appréciation des règles et principes comptables suivis par l'établissement, nous nous sommes assurés de la pertinence des principes comptables retenus afin de traduire le plus fidèlement possible l'activité et le patrimoine de l'Etablissement.

### ***Provisions pour risques et charges***

Votre Etablissement constitue des provisions pour couvrir ses passifs de démantèlement et d'assainissement, tels que décrits dans la note « 20 – Provisions pour risques et charges » de l'annexe.

Dans le cadre de nos travaux, nous avons apprécié le caractère approprié et raisonnable des hypothèses retenues concernant les estimations de ces passifs. Nous rappelons toutefois que, ces estimations étant fondées sur des prévisions présentant par nature, un caractère incertain, les réalisations pourraient différer, parfois de manière significative, des prévisions.

Les appréciations ainsi portées s'inscrivent dans le cadre de notre démarche d'audit des comptes annuels, pris dans leur ensemble, et ont donc contribué à la formation de notre opinion exprimée dans la première partie de ce rapport.



*Institut de Radioprotection et de Sûreté Nucléaire  
(IRSN)  
Rapport du commissaire aux comptes sur les comptes  
annuels  
18 mars 2016*

### 3 Vérifications et informations spécifiques

Nous avons également procédé, conformément aux normes d'exercice professionnel applicables en France, aux vérifications spécifiques prévues par la loi.

A l'exception de l'incidence des faits exposés dans la première partie de ce rapport, nous n'avons pas d'autres observations à formuler sur la sincérité et la concordance avec les comptes annuels des informations données dans le rapport de gestion du Directeur général et dans les documents adressés sur la situation financière et les comptes annuels.

Paris La Défense, le 18 mars 2016

KPMG Audit  
Département de KPMG S.A.

Denis Marangé  
Associé



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