

Financial Statements
for the year ended 31 December **2015**

Audited by

**SUPREME AUDIT OFFICE OF POLAND
NAJWYŻSZA IZBA KONTROLI (NIK)**



Action to be taken		Voting Procedure
For recommendation to Council	FINANCE COMMITTEE 356th Meeting 14 and 15 June 2016	Simple majority of Member States represented and voting and 51% of the contributions of all Member States
For approval	COUNCIL 181st Session 16 and 17 June 2016	Simple majority of Member States represented and voting

The Finance Committee is invited to recommend to the Council and the Council is invited to approve the 2015 Financial Statements and to grant discharge to the Director-General.

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EXECUTIVE SUMMARY

CERN, the European Organisation for Nuclear Research, operates the world's leading laboratory for particle physics. Its mission is fundamental physics research, finding out what the Universe is made of and how it interacts. Founded in 1954, CERN has become a prime example of international collaboration, with 21 Member States as of January 2015. Additional countries around the globe also contribute to and participate in the research programmes.

Presented in this document are the Financial Statements of CERN for the year ending 31 December 2015. These accounts have been prepared in compliance with the International Public Sector Accounting Standards (IPSAS), as they have been every year since 2007. Highlights from the 2015 financial statements include

- Finalization and implementation of a revised Property, Plant and Equipment (PPE) accounting policy. Equally a revision and implementation of the accounting policy for intangible assets. The net result is 1.2 BCHF of additional assets on the financial position.
- Restatement of prior year financial position and cumulative balances as a result of the changes in accounting policy
- Review and introduction of mechanism to reduce volatility on the discount rate used to calculate the post-employment benefit liabilities
- Budget surplus in the year of 84.0 MCHF compared to expected deficit of 44.3 MCHF
- Increase in net assets to -598 MCHF at the end of 2015, after -2 298 MCHF reported in the 2014 financial statements.

The year 2015 represented the culmination of several years of effort and collaboration across the laboratory in order to revise and implement a new policy relating to the tangible assets of CERN. The new policy includes an approach by components for the calculation of depreciation, a more extensive identification of asset classes and a change in the recognition threshold, which results in the recognition of assets not previously recognized. In addition, a PPE register has been introduced for better control and traceability of completed assets. The new policy is a balance between providing improved accuracy for the accounting information in all material areas, while trying to maintain a pragmatic approach, which does not unduly burden the technical parties with more procedures than necessary. In addition, a review has been completed in 2015 to allow the identification of internal software development at CERN, and to establish procedures to measure the related costs of the development. The total net effect of the new policies is an additional 1.2 BCHF in non-current assets added to the opening balances of 2015.

As a result of the change in policy, in compliance with IPSAS, the Statement of Financial Position at 31 December 2014 and all cumulative balances have been restated to reflect the impact as if the PPE and intangibles policies had always been in effect. Owing to the complexity of the adjustments for the PPE assets, it was not possible to restate the details on the Statement of Financial Performance for the year ending 31 December 2014. The note 7.1.4 describes the impacts of the restatement due to the PPE and intangible policy changes,

as well as some additional adjustments, on both the Financial Position and Financial Performance. The need to restate prior year figures has rendered the financial statements for 2015 slightly more difficult to read, but as restatement is an IPSAS requirement, it was unavoidable and hopefully worth the positive results achieved with the change in accounting policies.

In their report on the 2014 financial statements, the external auditors recommended a review of the discount rate used for calculating the present value of post-employment benefit obligations. This review duly took place, and as a result CERN will continue to use the long-term (30 year) Swiss Confederation Bond interest rate as the reference rate for time value of money. As the discount rate should not be below the time value of money, it was decided to adopt the principle that the discount rate should never fall below the best estimate of future long term inflation. According to the external risk advisors of the Pension Fund, at 31 December 2015 their best estimate of future inflation is an average rate of 1.35% p.a. This rate has therefore been used as the discount rate estimate since the reference rate is 0.7% at 31 December 2015. The actuarial gains resulting specifically from the application of this new discount rate are 1.3 BCHF in the year. More explanations are given in note 7.13, including details of the other assumptions changed and the net actuarial adjustments for post-employment benefits.

The budget deficit for 2015 was initially foreseen to be 44.3 MCHF. In fact a budget surplus amounting to 84.0 MCHF was recorded. The main reasons for the 128.3 MCHF difference can be explained as follows

- The focus on the restart of the machine in the first months of 2015 meant less staff strength was available for High Luminosity LHC (HL-LHC), LHC Injector Upgrade (LIU), consolidation, and diversity activities, resulting in delays in engineering and consequently order placing;
- The CHF-EUR appreciation contributed to a decrease in expenses of around 25 MCHF, including for energy;
- A cost and schedule review of both LIU and HL-LHC projects, re-profiling for certain building projects, and additional delays on construction and new schedules for non-LHC projects

Taking into account 57.0 MCHF in capital repayments (32.6 MCHF more than expected due to repayment of Services Industriels de Geneve (SIG)) and 60 MCHF for the recapitalization of the Pension Fund, the final amount to be allocated to the budget balance is -33.0 MCHF which will be added to the cumulative budget deficit. More details are available in the Annual Progress Report (APR), and a reconciliation of the financial net deficit to the budget surplus appears in the following pages.

The net assets on the financial position passed from -1 061 MCHF (restated from - 2 298 MCHF) in 2014 to -598 MCHF at the end of 2015. While negative net assets is not desirable, the significant improvement over the previous year should be noted. The decrease is due to additional net assets added as a result of the new PPE and intangible

asset policies, a decrease in the post-employment benefits liabilities and offset by the net financial deficit in the year of -268 MCHF.

AUDIT OPINION



NAJWYŻSZA IZBA KONTROLI

SUPREME AUDIT OFFICE OF POLAND

Audit No. P/16/051-2/CERN FS

EXTERNAL AUDITOR'S REPORT ON THE FINANCIAL STATEMENTS OF THE EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH (CERN) FOR THE YEAR ENDED 31 DECEMBER 2015

Warsaw, 19 May 2016

EXTERNAL AUDITOR'S REPORT

Addressed to:

**COUNCIL OF THE EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH
(CERN)
CH-1211, Geneva 23, Switzerland**

REPORT ON THE FINANCIAL STATEMENTS

We have audited the accompanying financial statements of the European Organization for Nuclear Research (CERN), which comprise the statement of financial position as at 31 December 2015, and statement of financial performance, statement of changes in net assets and cash flow statement for the year then ended, statement of comparison of CERN budget and actual amounts, and a summary of significant accounting policies and other explanatory information.

We have also audited the CERN management compliance with CERN Financial Rules and Regulations for the Implementation of the CERN Financial Rules, including Procurement Rules as well as other rules and regulations and service agreements related to and affecting the use of CERN financial resources.

CERN Management's Responsibility for the Financial Statements

CERN management is responsible for the preparation and fair presentation of these financial statements in accordance with International Public Sector Accounting Standards, and for such internal control as the management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

CERN Management's Responsibility for Compliance

CERN management is also responsible for the use of CERN financial resources in compliance with all applicable rules and regulations.

Responsibility of the Supreme Audit Office of Poland (NIK)

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards of Supreme Audit Institutions (ISSAI). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements.

Our responsibility is also to express an audit opinion on compliance of respective CERN authorities with the CERN all applicable rules and regulations as regards making use of financial resources of the organization.

The audit involved performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depended on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error, and risk of non-compliance with authorities. In making those risk assessments, we considered internal control relevant to the entity's preparation and fair presentation of the financial statements as well as to the entity's managing of public funds in compliance with authorities in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the CERN's internal control. Our audit included evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. The audit

also included evaluating the compliance of respective CERN authorities with all applicable CERN rules and regulations while making use of financial resources of the organization.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Audit Opinion on CERN financial statements

In our opinion, the financial statements present fairly, in all material respects, the financial position of the European Organization for Nuclear Research as at December 31, 2015, its financial performance and its cash flows for the year then ended in accordance with the International Public Sector Accounting Standards.

Audit Opinion on compliance of the CERN's management with rules and regulations

In our opinion, the transactions carried out in the process of execution of the CERN budget have been, in all material respects, in compliance with the CERN Financial Rules, including Procurement Rules, and Regulations for the Implementation of the CERN Financial Rules. The CERN management also complied with other rules, regulations and service agreements related to and affecting the use of the CERN financial resources.

Other Matter Paragraphs

1. For the last two years we have drawn attention of the Council to our recommendation for reviewing and revising CERN policies on recognition, measurement, and depreciation of Property, Plant and Equipment (PPE) and intangible assets at CERN. This review has been finalized in 2015 and a revised accounting policies on PPE as well as intangible assets have been developed. We have communicated our views on various aspects of PPE and intangible assets accounting policies and agreed with the CERN management on all points presented in the policy documents, which, consequently, have become official CERN policy papers available in the CERN EDMS document system¹, and whose essential points have been included in the Notes to the CERN 2015 Financial Statements. The said development has constituted a major breakthrough in the CERN approach to tangible and intangible asset accounting and management, signified by revised recognition and measurement criteria for various PPE and intangible asset classes; by lowering the recognisable cost of PPE from 3MCHF to 100 KCHF and establishing it at 100 KCHF for self-developed and 50 KCHF for acquired intangible assets, as a consequence recognizing the cost or value of assets not recognized before; by developing a comprehensive asset register; and by more precise monitoring of useful life of particular tangible and intangible items.

We have communicated this issue to the CERN management during our audits, stressing the importance of such a revision for improved comprehension of the value of CERN's acquired and self-developed tangible and intangible assets. In line with our anticipation, the revision of the CERN accounting policy towards PPE and intangible assets and the ensuing restatement of the CERN 2014 Financial Statements have resulted in a significant increase of the total value of the completed PPEs and intangible asset, which amounted to 1,585 MCHFs (1,509 MCHF for PPEs and 76 MCHF for intangible assets) as of the end of 2014 before the revision. This represents an increase of 26% as compared to the said value. The implementation of the revised policy has also brought about a decrease to the PPE and intangible assets in progress in the amount of – 358 MCHF, resulting in a net increase PPE and intangible assets of 1,227 MCHF, or 17%.

The CERN management has also followed our recommendation to develop a comprehensive and uniform register for PPE and intangible assets, which provides information on particular

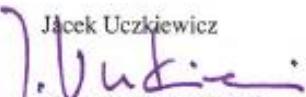
¹ EDMS – Engineering & Equipment Data Management Service System

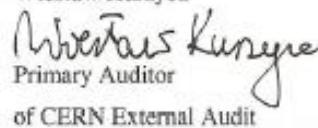
assets' net gross and net book values, their expected useful lives, depreciation plans as well as values of additions during the year, both for new assets acquired and assets being developed or modernised at CERN. The register has been built as an electronic database supported additionally by a report-generating software.

In our view, the improvements described above have set a firmer basis for strategic and mid-term planning of CERN further development. They also manifest the dedication and professionalism of the people involved in the project. The financial statements for 2015 were the first for which the revised accounting policy in reference to PPE and intangible assets was implemented. We will continue to monitor its further implementation next years and express our view on the consistency of its application and various aspects of PPE and intangible assets accounting treatment.

2. In our previous year report we drew attention of the Council to the volatility in the adopted discount rate used to calculate the present value of the CERN Pension Fund defined benefit liability that, as a result, entailed steep decreases or increases of the CERN net assets in recent years. Because of the said volatility, we expressed the view that it was worthy of considering whether a discount rate adopted in reference to market yields at the reporting date based on 30-year Swiss government bonds provide the best approximation of the time value of money, and whether not to consider other options provided by IPSAS 25 in making judgments about the discount rate by reference to market situation at the reporting date.

The CERN management, supported by external experts, have developed another approach to the discount rate issue, consisting in the continuation of the use of 30-year Swiss government bonds as the basis for the adoption of the discount rate but at the same time in the application of a principle that the discount rate estimate used for valuing post-employment benefits should never fall below the best estimate of future inflation. This approach was communicated to us in the course of this audit and we expressed our view that the approach is reasonable as it secures against volatility that may be caused by short-term market fluctuations or by linking the government bond market to current monetary policies. We also accepted, based on supportive argument of NIK external experts, the CERN management assumption for the best estimate of future inflation as used by the CERN Pension Fund actuary for the on-going periodic actuarial review of the Fund – to be confirmed each subsequent year that the estimate remains reasonable.

Jacek Uczkiewicz

Vice-President of NIK
Chairman of CERN Audit
Steering Committee

Wieslaw Kurzyca

Primary Auditor
of CERN External Audit

19 May 2016
Supreme Audit Office
ul. Filtrowa 57
Warsaw, Poland

SIGNATURE OF THE CERN OFFICIAL REPRESENTATIVES

The undersigned hereby certify that, to the best of their knowledge, the information contained in the Financial Statements for 2015 fairly presents the financial conditions and results of operations of the Organization.



Martin Steinacher

Director for Finance
and Human Resources



Fabiola Gianotti

Director-General

1. STATEMENT OF FINANCIAL POSITION

kCHF	Note	As at 31.12.2015	As at 31.12.2014 (restated)
ASSETS			
Non-current assets			
Scientific Programmes			
LHC Programme	7.3.1	5 648 738	5 854 080
Other Programmes	7.3.1	1 244 187	1 123 326
Non Scientific Programmes	7.3.1	622 236	613 322
Sub-total - Property, Plant and Equipment available for use		7 515 161	7 590 728
In progress			
Scientific Programme	7.3.2	484 922	542 678
Non Scientific Programme	7.3.2	62 188	71 048
Sub-total - Property, Plant and Equipment in progress		547 110	613 726
Intangible Assets available for use	7.4.1	115 140	79 166
Intangible Assets in progress	7.4.2	5 457	16 721
CHIS Fund financial assets	7.11	205 027	190 259
		8 387 895	8 490 599
Current assets			
Inventories	7.5	14 328	16 846
Receivables - Member States	7.6.1	80 165	87 991
Receivables - Taxes	7.6.2	14 215	19 029
Receivables - Teams & Collaborations	7.6.3	4 936	7 841
Other receivables and prepayments	7.6.4	24 440	21 036
Other financial assets	7.7		50 000
Cash and cash equivalents	7.8	176 200	117 723
		314 285	320 466
	Total	8 702 180	8 811 065
LIABILITIES & NET ASSETS			
Net assets			
Accumulated surpluses & deficits	7.9	- 330 249	- 801 580
Net surplus/deficit (-) for the period		- 268 064	- 259 573
		- 598 313	-1 061 153
Non-current liabilities			
Long-term debts	7.10	307 868	332 976
Long term liabilities - CHIS Fund	7.11	177 946	163 822
Post-employment benefits	7.13	8 155 838	8 741 227
Provisions - Others	7.14	223 680	167 267
		8 865 332	9 405 292
Current liabilities			
Short-term debt and bank overdraft	7.15	25 108	56 952
Short term liabilities - CHIS Fund	7.11	27 081	26 437
Payables - Trade accounts	7.16.1	67 352	84 049
Payables - Teams & Collaborations	7.16.2	183 615	183 979
Payables - Employee benefits	7.16.3	67 359	72 338
Deferred revenue	7.17	60 167	37 925
Other liabilities - Member States	7.12	2 277	2 277
Other current liabilities	7.18	2 203	2 969
		435 161	466 926
	Total	8 702 180	8 811 065

2. STATEMENT OF CHANGES IN NET ASSETS

	kCHF	Reserves	Accumulated gains & losses from defined benefits plans*	Revaluation surplus *	Accumulated surpluses & deficits	Total
Balance as at 31.12.2013		687	-5 926 826		6 269 970	343 831
Changes during the period 2014			-2 382 692 - 696 070 -1 686 622		- 259 573	-2 642 265
Balance as at 31.12.2014		687	-8 309 518		6 010 397	-2 298 434
Changes in accounting methods		- 687	- 148 583	15 764	1 370 787	1 237 968
Balance as at 31.12.2014 (restated)		- 0	-8 458 101	15 764	7 381 184	-1 061 153
Changes during the period 2015			738 852 297 289 441 563	- 7 949	- 268 064	462 840
Balance as at 31.12.2015		- 0	-7 719 248	7 815	7 113 120	- 598 313

* recognized directly in net assets

The above statement includes the Organization's net deficit for the year as well as other valuations adjustments which, in line with IPSAS, are not recorded in the Statement of Financial Performance but directly in the Statement of Financial Position. In 2015, these included the actuarial losses on defined benefit plans and the impact of the revaluation of the land.

Also included in the above table are the effects of the restatement to the financial statements for changes in accounting methods. Refer to note 7.1.4 for more details.

For more information about the variation for the year, please refer to note 7.9.

3. STATEMENT OF FINANCIAL PERFORMANCE

	kCHF	Note	2015	2014	Variation
REVENUE					
Contributions for the financial year		7.19	1 048 775	1 099 637	- 50 862
Additional contributions from Host States		7.19		1 574	- 1 574
Contribution as Candidate for Accession		7.19	8 155	7 891	264
Contribution as Associate Member State		7.19	5 273	1 000	4 273
Special Contribution from Member State		7.19	9 451		9 451
Special Contribution as Associate Member State		7.19		12 044	- 12 044
EU contributions		7.20	16 440	20 864	- 4 424
Financial Revenue		7.24	6 369	2 270	4 099
Internal taxation			30 047	29 028	1 019
Other revenue		7.21	64 748	109 737	- 44 989
	Total		1 189 258	1 284 045	- 94 787
EXPENSES					
MATERIALS					
Goods, Consumables & Supplies			66 786	86 692	- 19 906
Electricity, heating gas and water			64 604	42 227	22 377
Industrial services			75 694	82 302	- 6 608
Associated Members of Personnel			32 068	32 499	- 430
Other overheads			50 419	49 015	1 404
	7.22		289 571	292 735	- 3 164
PERSONNEL					
Remuneration			264 834	278 097	- 13 263
Social and family benefits			58 414	54 507	3 907
Social insurance cover			98 313	93 917	4 396
Annual variation - paid leave			- 758	6 423	- 7 181
Post-employment benefits			183 262	258 956	- 75 694
Internal taxation			30 047	29 028	1 019
	7.23		634 111	720 928	- 86 817
FINANCIAL EXPENSES					
DEPRECIATION AND AMORTIZATION EXPENSES		7.24	15 124	15 779	- 655
CHANGE IN PROVISION FOR RADIOACTIVE WASTE			407 725	433 358	- 25 633
WRITE-OFF PROPERTY, PLANT AND EQUIPMENT		7.14	45 894	2 131	43 763
RECAPITALISATION PENSION FUND		7.3.1	4 897	18 687	- 13 790
	7.27		60 000	60 000	
	Total		1 457 322	1 543 618	- 86 296
NET SURPLUS/DEFICIT (-) FOR THE PERIOD			- 268 064	- 259 573	- 8 491

4. CASH-FLOW STATEMENT

kCHF	2015	2014
CASH-FLOW FROM OPERATING ACTIVITIES		
Deficit from the Statement of Financial	- 268 064	- 259 573
Less recapitalisation Pension Fund*	60 000	60 000
Non-cash movements		
Depreciation on non-current assets	407 743	433 345
Provision for post employment benefits	153 463	230 237
Provision for radioactive waste	45 893	2 131
Increase (Decrease) in provision for doubtful debts	- 18	- 20
Increase (Decrease) in provision for expenses	- 455	505
Increase (Decrease) in provision for inventories	- 555	34
Losses (Gains) on write-off of non-current assets	4 897	18 687
In-kind revenues	- 19 465	- 65 899
Increase (Decrease) in inventories	3 073	- 609
Increase (Decrease) in receivable - Member States	42 295	10 059
Increase (Decrease) in receivable - EU projects	1 843	- 10 475
Increase (Decrease) in receivable - Taxation	20 864	19 826
Increase (Decrease) in payables - Personnel	11 175	22 916
Increase (Decrease) in payables - Suppliers	- 34 449	- 16 078
Increase (Decrease) in other current assets	- 5 188	9 920
Net variation of Teams and Collaborations	2 806	3 904
Net cash-flow - Operating Activities (A)	425 858	458 910
CASH-FLOW FROM INVESTING ACTIVITIES		
Personnel expenses - transfers to PPE	- 130 957	- 108 698
Material expenses - transfers to PPE	- 154 703	- 213 609
Variance in other financial assets	50 000	10 000
CHIS Fund capitalisation	- 14 769	- 22 893
Net cash-flow - Investing activities (B)	- 250 429	- 335 200
CASH-FLOW FROM FINANCING ACTIVITIES		
Proceeds from long-term borrowings		
Repayments of long-term borrowings	- 56 952	- 26 239
Net variation of short-term borrowings	- 60 000	- 60 000
Recapitalisation Pension Fund		
Net cash-flow - Financing activities (C)	- 116 952	- 86 239
NET VARIATION IN CASH AND CASH EQUIVALENTS (A+B+C)	58 477	37 471
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	117 723	80 252
CASH AND CASH EQUIVALENTS AT END OF PERIOD	176 200	117 723

* Recapitalisation Pension Fund is included in the Deficit. Since it is an investing activity, it is added back under the operating activities and shown in the financing activities.

5. STATEMENT OF COMPARISON OF BUDGET AND ACTUAL AMOUNTS

MCHF	Note	Final 2015 Budget	2015 Actual amounts	Variation of Actual amounts with respect to Budget
		CERN/FC/5873 (2015 prices)		
Revenues				
Member States' contributions		1 108.8	1 048.8	- 60.0
Additional contribution from Romania as Candidate for Accession		8.2	8.2	-
Special contribution from Israel		0.4		- 0.4
Additional contribution from Serbia as Associate Member State		1.0	1.0	-
Additional contribution from Turkey as Associate Member State			3.6	3.6
Additional contribution from Pakistan as Associate Member State			0.7	0.7
Contributions anticipated from new Associate Member States		5.0		- 5.0
EU Contributions		17.8	16.4	- 1.4
Other revenues		80.5	93.6	13.1
	8.1	1 221.6	1 172.2	- 49.4
Expenses				
Materials	8.2	635.5	444.3	- 191.2
Personnel	8.3	616.7	628.9	12.2
Interest and Financial Costs	8.4	13.7	15.1	1.4
		1 266.0	1 088.3	- 177.7
A. BUDGET SURPLUS/DEFICIT (-) FOR THE PERIOD*		- 44.3	84.0	128.4
B. CAPITAL REPAYMENTS	8.5	24.3	57.0	32.6
C. RECAPITALISATION PENSION FUND	7.27	60.0	60.0	
ALLOCATION TO BUDGET BALANCE (A-B-C)	7.9	- 128.7	- 33.0	95.8
CUMULATIVE BUDGET BALANCE	7.9	- 213.8	- 118.1	95.8

* refer to note 8

6. ACCOUNTING RECONCILIATION OF BUDGET ACTUAL AMOUNTS TO STATEMENT OF FINANCIAL PERFORMANCE

The Budget is recorded based on modified accrual basis accounting while the revenue and expenses on the Statement of Financial Performance are recorded under accrual basis accounting.

The summary of differences between the budget actual amounts and the amounts recognised in the Statement of Financial Performance are shown in the following table. Note that the expenses transferred to PPE concern most categories of expenses, which should be taken into account if making a detailed comparison.

	Note	MCHF
BUDGET SURPLUS/DEFICIT (-) FOR THE PERIOD (A)		84.0
Property, plant and equipment (PPE) reconciliation (B)		- 110.0
Revenues In-Kind on detectors	7.21	17.0
Expenses transferred to PPE and intangible assets	7.3, 7.4	285.7
Depreciation and amortization expenses	7.3, 7.4	- 407.7
Write-off PPE	7.3	- 4.9
Items not recognized in the Budget Surplus/Deficit (C)		- 242.0
Variation of provision for post-employment benefits	7.13	- 153.5
Recapitalisation Pension Fund	7.27	- 60.0
Variation of provision for elimination of radioactive waste	7.14	- 45.9
Amortization of staff benefit accruals*		17.3
TOTAL ACCOUNTING RECONCILIATION (D) = (B)+(C)		- 352.0
NET ACCOUNTING SURPLUS/DEFICIT (-) FOR THE PERIOD = (A)+(D)		- 268.0

* Amortization of the accruals of staff's paid leave and similar allowances, introduced for the first time in the Financial Statements for the year 2007 (CERN/FC/5245 - CERN/2787)

7. NOTES TO THE FINANCIAL STATEMENTS

Founded in 1954, CERN, the European Organization for Nuclear Research, is an Intergovernmental Organization located in Geneva, Switzerland.

CERN's mission is to provide for collaboration among Member States and Associate Member States in the field of high-energy particle physics research and to this end it designs, constructs and runs the necessary particle accelerators and the associated experimental areas. Accelerators boost beams of particles to high energies before they are made to collide with each other or with stationary targets. Detectors observe and record the results of these collisions.

CERN also hosts numerous international collaborations and visiting scientists.

7.1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

7.1.1. BASIS OF PREPARATION

The financial statements of CERN as at and for the year ending 31 December 2015 have been prepared in accordance with International Public Sector Accounting Standards (IPSAS) and in conformity with the Financial Rules and their implementing regulations approved by the Organization's governing bodies.

They have been approved by the Director-General and the Director for Finance and Human Resources on 31 March 2016.

Although the Pension Fund is legally part of the Organization, its accounts are the subject of a separate report by the Administration of the Pension Fund. The report is endorsed by the Governing Board of the Pension Fund and submitted to the Council for approval through the Finance Committee.

While the accounts of CERN are maintained to the cent, these financial statements are expressed in thousands or millions of Swiss Francs. Some rounding differences therefore occur.

The accounting principles applied to the financial statements of 31 December 2015 are identical to those used in the financial statements of 31 December 2014, with the exception of policy changes for Property, Plant and Equipment and Intangible assets. Details of these changes are available in note 7.1.4. The application of IPSAS new standards and interpretations had no impact on the CERN's financial statements as of 31 December 2015.

The financial statements are prepared on the basis of the historical cost principle, unless otherwise stated.

7.1.2. USE OF ESTIMATES AND ASSUMPTIONS

The financial statements necessarily include amounts based on estimates and assumptions by Management. Estimates include, but are not limited to: post-employment benefits obligations, provisions, financial risk on inventories and receivables, accrued charges, contingent liabilities, estimated useful life of property, plant and equipment, and degree of impairment of property, plant and equipment. Actual results could differ from those estimates. Changes in estimates are reflected in the period in which they become known.

7.1.3. UNIT OF ACCOUNT AND FOREIGN CURRENCY TRANSLATION

The unit of account for all transactions is the Swiss franc, in compliance with Article 4 of the Financial Rules (CERN/FC/5305 – CERN/2822).

Transactions denominated in the other main currencies (EUR, USD, GBP, JPY) are converted into Swiss francs:

- using the Swiss National Bank daily exchange rate, for receipts and payments;
- using a weekly reference exchange rate for all other transactions.

At the end of the year, all monetary items denominated in a foreign currency are converted at the rates of exchange applicable on the last working day of the year. The rates of exchange used are those of the Swiss National Bank and if not available, those of the European Central Bank. The resulting gains and losses, including those relating to foreign currency transactions during the financial year, are recorded in the Financial Revenue and Expenses included in the Statement of Financial Performance.

7.1.4. CHANGES IN ACCOUNTING POLICY

Property, Plant and Equipment

In view of the evolution of CERN tangible asset classes, the completion of the LHC construction, and the various other programmes and consolidation programmes in progress at the Laboratory, a review of the Property, Plant and Equipment (PPE) accounting policy has been finalised in 2015. The new policy includes an approach by components, a more extensive identification of asset classes and a change in the recognition threshold which results in the recognition of assets not previously recognised. In addition, a PPE register has been introduced for better control and traceability of completed assets.

The impact of the change in PPE policy is shown in the table below as if the new accounting policy had always been applied.

Intangible assets

In response to a recommendation from the auditors and in order to better comply with IPSAS requirements, a review has been completed for the 2015 accounts which has allowed the identification of internal software development at CERN, and procedures have been established to allow the measurement of the related costs of their development. The intangible asset policy has been updated accordingly, so for the first time in 2015 the intangible assets will include internally developed software plus internal developments on external origin (purchased) software. Previously, intangible assets recognized in the financial statements included only patents and purchased software. In addition, a register has been introduced for better control and traceability of internal developments on software.

The impact of the change in intangible assets policy is shown in the table below as if the new accounting policy had always been applied.

Inventory

During the review for the Property, Plant and Equipment (PPE) accounting policy, a significant number of stored cables have been identified. The value of this inventory was not accounted for in previous periods.

The impact of the correction in inventory on the 2014 balance is shown in the table below.

Prepayments

During the year, it was noted that a contribution to a collaboration which should have appeared as a prepayment in 2014 had been incorrectly recorded as an expense.

The impact of the correction in prepayments on the 2014 balance is shown in the table below.

Net assets classifications for post-employment benefits

An adjustment between net asset categories Accumulated gains & losses from defined benefits plans and Accumulated surpluses & deficits has been recorded to reflect an adjustment to the service charges for post-employment benefits previously recognized to ensure consistent treatment of employer and employee contributions, and to exclude the Pension Fund capitalization expenses from the employer contributions taken into account for the service cost.

The impact of the correction in net asset categories appears in the Statement of Changes in Net Assets. It does not appear in the table below because there is no net impact on the net assets, nor is any other line of the financial position affected.

Net assets classifications for reserves

An adjustment between net asset categories Reserves and Accumulated surpluses & deficits has been recorded to reflect a reclassification of the reserves to the results at the time the working balance ceased to exist in the form initially foreseen. Initially set up in 1955, the working balance was to be taken into account when determining the level of member state contributions, and it was to provide a reserve of not more than one quarter of net expenditure that could be used to meet any temporary shortage of funds but not to cover expenditures in excess of the annual budget. In July 1992 (CERN/1923), the Council approved the use of the working balance for the Eurolep ruling and the offsetting investment account was closed. As such, the nature of the reserves ceased to be as originally envisaged, and in fact when the Financial Rules & Regulations were upgraded in 2008, the Financing section no longer includes a reference to the working balance.

The impact of the correction in net asset categories appears in the Statement of Changes in Net Assets. It does not appear in the table below because there is no net impact on the net assets, nor is any other line of the financial position affected.

	Balances at 1 January 2014, as previously reported	Impact of restatement on 2014 opening balance	Restated Balances at 1 January 2014		Balances at 31 December 2014, as previously reported	Impact of restatement at 1 January 2014	Impact of restatement during 2014	Restated Balances at 31 December 2014
kCHF								
Property, Plant and Equipment PPE in progress	6 210 354 930 314	1 425 833 - 391 868	7 636 187 538 446		6 081 539 988 616	1 425 833 - 391 868	83 355 16 978	7 590 728 613 726
Sub-total Property, Plant and Equipment	7 140 668	1 033 965	8 174 633		7 070 155	1 033 965	100 333	8 204 454
Intangible Assets - available for use Intangible Assets - in progress	3 885 141	44 279 13 153	48 164 13 294		3 131 201	44 279 13 153	31 756 3 368	79 166 16 721
Sub-total Intangible Assets	4 026	57 432	61 458		3 332	57 432	35 123	95 887
Inventory Other receivables and prepayments	7 047 22 738	13 576	20 623 22 738		7 623 19 831	13 576	- 4 353 1 205	16 846 21 036
Total Assets	7 174 479	1 104 973	8 279 452		7 100 941	1 104 973	132 308	8 338 222
Net Assets	343 831	1 104 973	1 448 804		-2 298 434	1 104 973	132 308	-1 061 153
							1 237 281	

Consistent with IPSAS 3 (Accounting Policies, Changes in Accounting Estimates and Errors), the Organization has restated the opening balances for the earliest period presented, being 2014. The Statement of Financial Position at 31 December 2014 has therefore been restated for each affected component, and the impact of the restatements appears in the table above.

The Statement of Financial Performance for the year ended 31 December 2014 has not been restated since it is impracticable to arrive at the impact on each line item in this statement. The restated Net Deficit for the period is -49.4 MCHF, a net reduction of 210.2 MCHF from the originally reported net deficit of -259.6 MCHF. This net reduction can be explained by the restatement impact in 2014 on net assets of 132.3 MCHF appearing in the table above, reduced by the impact of the land revaluation reserve in the amount of 15.8 MCHF which is recorded directly to net assets and therefore does not affect the net deficit, and increased by the impact of correcting the 2014 actuarial gains/losses in the amount of 93.7 MCHF.

The Cash-Flow Statement for the year ended 31 December 2014 has not been adjusted to reflect the impact of the restatement. However, the format has been modified to more closely follow the recommended format for the indirect method since that is in fact the method used to arrive at the figures.

The total effect of the restatement on the net assets is disclosed in the Statement of Changes in Net Assets and amounts to 1 237.3 MCHF.

7.1.5. ASSETS

7.1.5.1. *Property, Plant and Equipment (PPE)*

A) General Policy

According to IPSAS 17, Property Plant and Equipment (PPE) are tangible items that are held for use in the production or supply of goods or services, or for administrative purposes, and that are expected to be used during more than one reporting period. The cost of these items shall be recognized in Property Plant and Equipment (PPE) if it is probable that future service potential or economic benefits associated with it will flow to CERN and their cost can be measured reliably. Details of the CERN criteria for recognition as well as of the measurement policy appear below.

CERN discloses the PPE in its Financial Statements split into Scientific Programme and Non-Scientific Programme to reflect the Organization's main activities and to correspond to the budget presentation. As an international laboratory, CERN builds and operates particle accelerators, also building or purchasing the apparatus and infrastructure necessary to conduct related scientific research programmes. It also builds or acquires the infrastructure for hosting non-scientific supporting activities, administration and logistics. Further disclosure of PPE is based on asset classes which equate to the sub-programmes of activity. An approach by components is used to facilitate fair depreciation calculations.

- Criteria for recognition
 - General threshold:

The criterion for the recognition of the cost of any project – construction, consolidation, upgrade of any scientific or non-scientific installation or building – as an asset is set at 100 000 CHF. This threshold also applies to the acquisition or the construction of any individual item or group of similar items not included in a project, and to items acquired through non-exchange transactions. The cost of large collective purchases of items is also recognised as assets for the aggregate value if the total value of the purchase exceeds 100 000 CHF.

- Timing for recognition:

Costs relating to projects and items of PPE in progress are added to the in progress assets category as they occur. Assets are moved to the completed category when the commissioning date has occurred and the assets are available for use.

- Measurement and depreciation policy :

CERN applies the cost model in accounting for all PPE with the exception of land, whereby assets are carried at historical cost, less any accumulated depreciation and any impairment losses. The cost of PPE acquired through a non-exchange transaction is determined to be the fair value at the date of acquisition as determined by the parties to the transaction.

Depreciation of PPE items is recognised in the Statement of Financial Performance on a straight-line basis over the estimated useful life of the items concerned. The estimated useful life and residual values are determined by technicians responsible for PPE items, and these estimates are reviewed regularly.

Land is accounted for according to the revaluation model based on the market price in force on 31 December in Switzerland or France, as appropriate. No depreciation is therefore recorded for land.

- Impairment:

Under IPSAS 21, PPE are reviewed regularly for impairment to ensure the carrying amount is still considered to be recoverable. Recoverable service value corresponds to the higher of the value in use and the fair value. As there is no market for CERN's scientific assemblies, only the value in use is quoted for comparison with the carrying value. The value in use is usually arrived at using the depreciated replacement cost approach, however for some assets the restoration cost approach is used.

The impairment reviews are performed each year for major equipment or installations by the technical experts in charge of the assets provided that the initial useful life of the asset(s) concerned is more than 5 years and its initial unit value over 100 000 CHF.

- Derecognition:

An item of PPE is derecognised if the stakeholder responsible for the asset informs General Accounting that the asset is no longer in use.

Items are derecognised in the following cases: disposal or sale of the item or when an item becomes obsolete and is out of service, even if it is not physically destroyed or sold.

B) Scientific Programme – LHC Programme and Other Programmes

- Measurement:

The Scientific Programme describes the scientific installations in use at CERN, and which are classified as being for the LHC programme and for the Other programmes based on the CERN Technical Layout.

All new scientific installations are monitored using a dedicated project code which captures both material and personnel costs related to the project. The total cost of each project is broken down into components based on function, and a useful life is assigned to the component.

COMPONENTISATION OF SCIENTIFIC INSTALLATIONS	Useful life - Range
Civil engineering consisting of machine buildings and undergrounds depending on the componentization of each construction	20 to 100
Magnets	17 to 90
Radio Frequency	10 to 30
Beam Instrumentation	10 to 50
Beam Transfer Primary	2 to 50
Cooling and Ventilation	10 to 40
Cryogenics	50
Electrical Installation and Cabling	25
Fire and Gas Detection	15
Accelerators Back/Front End Controls	5 to 15
Machine Protection and Integrity	15 to 25
Vacuum	10 to 90
Shielding	90
Power Converters	15 to 30
Targets, Dumps, Collimators	4 to 40
Access Control	15 to 20
Computer Networking	5 to 10
LHC Computing - Servers and Storage	3 to 15
LHC Computing - Others	32
Detectors ATLAS, CMS, ALICE, LHCb (depending on the detector)	5 to 30
Scientific Support corresponding to Personnel cost and Miscellaneous	11 to 32
Scientific Support corresponding to the remainder of the equipment and installations after their componentization and that are individually non-significant	1

- Subsequent costs:

CERN capitalises subsequent expenditure relating to an existing scientific installation only if it either:

- extends the original useful life of the installation significantly (by more than one year)
- improves the asset compared to its original condition
- increases or improves the quality of the original physical output
- results in an increase in the service capacity of the installation.

In the case of the scientific programmes, CERN considers that only consolidation programmes and long shutdowns (LS) are programmes that improve the performance of the accelerator complexes and should therefore be recorded as items of PPE. Note that for certain long life assets such as cryo or resistive magnets, consolidation programmes are considered maintenance and are therefore not capitalised.

- Spares:

Only spares connected with the scientific installations are recognised as PPE items. They follow the same recognition criteria and depreciation policy as described in Chapter 1 “General policy”.

Provided that there is no acquisition or creation of new spares, the replacement of installed items by spares will not be recorded in the accounting system nor in the PPE register, and will not give rise to changes in asset values since the replaced items are refurbished when they are removed from the installations and thereafter kept as a spare.

- Residual value:

As a general rule, any item that has been in contact with radioactivity is considered to have no residual value. Hence, all the PPE items recognised as part of the accelerators are deemed to have no residual value. Where a residual value is applicable, it is usually equal to the scrap value, as defined by the technical experts in charge of the assets.

- Detectors:

The detectors at CERN are operated by Collaborations to which CERN is a party. Although CERN is not the legal owner of these installations, since the detectors are located at CERN and require the accelerators to run, for

accounting purposes they are deemed to be under the control of CERN and are therefore included in the assets of CERN. As with the other scientific installations, the four main detectors are split into components.

Because all the costs of the detectors are shared by a large number of different entities, the basis for the historical value of the detectors as well as for the value of the upgrades during Long Shutdown 1 are the Memoranda of Understanding signed between the parties, CERN being a member of the collaborations on the same footing as any other member. Revenues in kind are recorded to reflect the contributions of other collaboration members to the cost of the assets recorded. Please refer to note 7.21.

C) Non Scientific Programme

The Non Scientific programme is classed into sub-programmes and then split into components with various useful lives depending on their function and nature. The following table displays the range of useful lives for each component

Non Scientific sub-programmes	Equipment and installations	Useful life - Range
General Facilities and Logistics	Civil engineering consisting of tertiary buildings, undergrounds, roads and car parks depending on the componentization of each construction	20 to 100
	Electrical Equipment and Distribution	20 to 50
	Heavy Handling	10 to 50
	Non-scientific support that corresponds to the remainder of the equipment and installations after their componentization and that are individually non-significant	1
	Vehicles	4 to 10
	Logistics	3 to 15
Manufacturing Facilities	Workshops	10 to 50
Informatics	Audiovisual and Conferencing	5 to 10
	Computer Networking	3 to 15
	Desktop Service	12 to 25
Safety, Health and Environment	Environment	10 to 15
	Personnel safety	15 to 17
	Safety	15
	Radioactive Waste	10 to 20
	Radioprotection Instrumentation	5 to 15
Outreach	Visit Points and Exhibitions	10

D) Land

On 17 March 1954, Geneva was selected as the site for the CERN Laboratory. The Government of the Swiss State and the Government of the French Republic signed a convention to put land respectively in Switzerland and in France at CERN's disposal.

- CERN and the Republic of France signed an agreement on 13 September 1965 for the use of land located in Saint-Genis and Prévessin and an addendum to this agreement signed on 9 December 1972 for the use of land in Gex for the building of the "Synchrotron".
- CERN and the Swiss Confederation signed an agreement on 27 February 1998 for the use of parcels in Meyrin and Collex-Bossy.

For accounting purposes, CERN is considered to have control of the land and it is therefore included as an asset class in the PPE even though CERN does not own the land.

Land is measured following the revaluation method, and is revalued at fair value on 31 of December each year using the average market price in force on the Swiss and French territories as described below. No depreciation is therefore calculated on the land.

Official statistics are used to arrive at the estimated market prices for two main categories:

- One estimate for the un-fenced parcels where no buildings can be erected. This estimate is the average quoted price of agricultural land recorded over the last 5 years in France (Pays de Gex) and Switzerland (Canton de Genève).
- One estimate for the fenced parcels where buildings can be erected. This estimate is the average quoted price of industrial land recorded over the last 5 years in France (Pays de Gex) and Switzerland (Canton de Genève).

Estimates for the land in France are made in Euros and converted to Swiss Francs using the rate of exchange applicable on the last working day of the year.

7.1.5.2. *Intangible assets*

Effective 1 January 2012, CERN adopted IPSAS 31: Intangible Assets on a prospective basis. According to IPSAS 31, intangible assets are defined as identifiable non-monetary assets that do not have physical substance. The cost of these assets is recognised in the financial statements if it is probable that the future economic benefits or service potential from the asset will flow to CERN, and the cost of the asset can be measured reliably. The intangible asset must also be under the control of CERN. Additional details of the CERN criteria for recognition as well as the measurement policy appear below.

The following are recorded as intangible assets at CERN:

- Internally developed software, including development on external origin software;
- External origin (purchased) software, including internal development costs;
- Patents;

Software is used at CERN for many operations in both the scientific programmes and non-scientific programmes. For the scientific programme, software is used for activities such as monitoring, controlling, simulating, configuration and data acquisition. For the non-scientific programme, software is used for activities such as controlling, monitoring, data management and storage. CERN therefore discloses the intangible assets in its Financial Statements split into Scientific Programme and Non-Scientific Programme to reflect the Organization's main activities and to be consistent with PPE reporting. The patents relate to CERN's knowledge transfer activities and appear at Non-scientific Programme assets.

- Criteria for recognition:

- General threshold:

A general threshold of 100 000 CHF is applied for internally developed software and for internal developments on external origin software. For purchases of external origin software, a threshold of 50 000 CHF is applied. These thresholds will be applied to the totality of the costs accumulated in the in-progress asset at the time of the transfer to completed assets. For subsequent improvement costs, the threshold will be applied to the costs accumulated each year. No threshold is applied for patents.

- Timing for recognition:

Costs relating to software in-progress are added to the in-progress assets category in the year they occur. Assets are moved to the completed category in the year the software is put into production and the software is available for use, or the year the patent starts to generate income.

- Measurement and amortization policy:

CERN applies the cost model in accounting for all intangible assets, whereby assets are carried at historical cost, less any accumulated depreciation and any impairment losses.

The cost for internally developed software is generally the estimated costs for the time spent developing software by members of CERN personnel. Where software is acquired, the purchase price of the software is also included in the costs. Costs relating to the research phase and for time spent on maintenance are not

capitalised, but rather are expensed as they occur. IPSAS 31 requires that the aggregate amount of research and development expenditure recognised as expenses in the Statement of Financial Performance be disclosed. Given the prevalence of research and development activities throughout CERN operations, it is difficult and costly to arrive at a reasonable estimate of this amount. No estimate of aggregate research and development expenditure is therefore disclosed in note 7.4 for Intangible Assets.

The cost of patents includes those costs paid directly for acquiring patents, and the materials and time spent to develop the ideas under patent, which can take a number of years. Research costs incurred as part of regular CERN operations, and prior to identification of a potential/existing market, are not included in these costs.

The estimated useful life of software is determined by technicians responsible for intangible assets, and these estimates are reviewed annually. The period of useful life of an intangible asset can be assessed and classified as definite or indefinite. At the reporting date CERN has no intangible assets with indefinite useful life.

Amortization of intangible assets is recognised in the Statement of Financial Performance on a straight-line basis over the estimated useful life of the items concerned. The amortization of software is calculated from 1st of July in the year the software is put into production.

For subsequent development costs on software already in production, the subsequent costs of each year will be assigned a useful life and amortised separately, calculated from 1 July. There is assumed to be no residual value for software, so the amortization calculation will be applied to the full cost of the software.

For the patents, the estimated useful life is the lifetime until the patent expires (usually 20 years from when the patent is filed). Amortization is calculated from the 1st of July of the year the revenue flows commence.

	Estimated useful lives (in years)
Non Scientific Programme	2 to 15
	1 to 15
	20
	5 to 10
Scientific Programme	6 to 22
	1 to 50
	5

- Impairment:

Under IPSAS 21 and IPSAS 26 (depending on if the asset is non-cash generating or cash generating), intangible assets are reviewed regularly for impairment to ensure the carrying amount is still considered to be recoverable. For non-cash generating assets (software), the carrying value will be compared to its recoverable service amount (which is the value in use for CERN software as no fair market value exists). The value in use of a non-cash-generating asset is the present value of the asset's remaining service potential. CERN will apply replacement cost approach to assess the value in use.

For cash generating assets (patents), the carrying value will be compared to expected recoverable amount.

The impairment reviews are performed each year from 2016.

- Derecognition:

An intangible asset is derecognised if the stakeholder responsible for the asset informs General Accounting that the asset is no longer in use.

Items are derecognised when an item becomes obsolete and is out of service.

7.1.5.3. *Financial assets – CHIS Fund*

The CERN Health Insurance Scheme (CHIS) provides health insurance to CHIS members. Contributions to the scheme are received from the Organization and the individual members.

This item represents investments in shares and bonds, plus deposits dedicated to the scheme and available in specific bank accounts. It is carried at fair value.

7.1.5.4. *Inventories*

Inventory is measured at standard cost, using the weighted average cost method.

The standard cost is arrived at using the purchase cost and applying a coefficient to the purchase cost of each item. This coefficient represents the costs incurred in bringing products to their present location and condition.

Depreciation is calculated for supplies held on the inventory held in the CERN Stores according to stock consumption and recorded in order to show the estimate of the net realisable value of inventories. For the cables inventory, adjustments based on the exact figures are recorded.

7.1.5.5. *Receivables and prepayments*

Receivables mainly relate to amounts due from Member States, national institutes, laboratories and the European Union. The amounts due from private companies are shown under the sub heading “Other receivables and prepayments”.

The expenditure committed on behalf of collaborations or research institutes in order to facilitate their participation in the experiments conducted on the CERN site as well as internal recharging are not reported in the Statement of Financial Performance but charged to the corresponding third party account in the Statement of Financial Position.

7.1.5.6. *Other financial assets*

Fixed-term deposits with an initial term greater than 3 months are reported as other financial assets. Other financial assets are carried at their fair value.

7.1.5.7. *Cash and cash equivalents*

Cash and cash equivalents comprise cash on hand, bank accounts and deposits held up to 90 days that are readily convertible to cash.

Cash and cash equivalents are subject to an insignificant risk of changes in value, and therefore their carrying value is assumed to be their fair value.

Bank overdrafts are shown under current liabilities of the Statement of Financial Position.

7.1.6. *LIABILITIES*

7.1.6.1. *Debts*

The amounts expected to be settled after more than twelve months from the reporting date are shown under Non-current liabilities. The amounts expected to be settled within twelve months from the reporting date, including the accrued interest over the period, are shown as part of Current liabilities.

7.1.6.2. *Liabilities - CHIS Fund*

In December 2007 the CERN Council approved the setting-up of a fund for the CERN Health Insurance Scheme (CERN/FC/5209 - CERN/2759).

The fund is allocated exclusively to the Organization's health insurance liabilities and contributes to addressing the problem of an ageing population and to improving the financial balance of the Health Insurance Scheme. The value of the liability is affected by the capital return and by the difference between contributions and benefits and external overheads.

This item includes the accrued benefits to be paid from the fund at the reporting date.

7.1.6.3. Post-employment benefits

Post-employment benefits represent the estimated actuarial liability of defined-benefit plans for retirement benefits and post-employment health cover calculated in accordance with IPSAS 25.

The actuarial liability of the defined-benefit plans for retirement benefits and post-employment health cover is the present value of the defined-benefit obligations at the reporting date minus the fair value of the corresponding plan assets.

The defined-benefit obligation is calculated annually by independent actuaries using the projected credit method. The present value of the defined-benefit obligations is determined by the estimated future cash outflows using the interest rate on long-term Swiss Confederation Bonds as the discount rate. A review of the discount rate used in this calculation was performed in 2015 as a result of a recommendation from the auditors. Following this review, the interest rate on the long-term Swiss Confederation Bonds continues to be the reference rate for the time value of money, however in addition, the principle that the discount rate should never fall below the best estimate of future inflation has been adopted.

The actuarial gains or losses arising from experience adjustments and changes in actuarial assumptions are recognised immediately in net assets.

The Organization's post-employment benefits are partly funded by separately held assets: the Pension Fund and the CHIS fund.

As indicated in 7.2.1, the accounts of the Pension Fund are subject to separate Financial Statements reported by the Administration of the Pension Fund.

Since the CERN Pension Fund holds the retirement benefits for both CERN and ESO members, the scheme must be considered as multi-employer. Therefore, the fair value of plan assets to be considered by CERN is calculated on a pro-rata basis of the employers' obligations, by independent actuaries.

7.1.6.4. Provisions

Provisions are recognised when the Organization has a legal or constructive obligation as a result of a past event where it is probable that an outflow of resources will be required to settle the obligation, and where a reliable estimate of the amount of the obligation can be made.

The present value of the special leaves for long service, of shift work compensation and of the contract termination allowances is calculated using the projected credit method. The discount rate used for calculating the present value is the relevant Swiss Confederation Bond's interest rate. As from 2015, regarding the accounting estimate of the discount rate, the principle has been adopted that the relevant discount rate should never fall below the best

estimate of future inflation over the similar period. This is consistent with the principle adopted for the post-employment benefits.

7.1.6.5. *Current liabilities*

Current liabilities are expected to be settled in the normal course of the operating cycle or are due to be settled within twelve months.

This heading includes mainly:

- the current liability of the long-term debts as well as the short-term borrowings from commercial banks;
- debts to suppliers and to the personnel;
- debts to third parties and advances from Teams and Collaborations;
- deferred revenue from the European Union and third parties which are accounted for as revenue up to the extent of the related projects' expenses;
- the accumulated remuneration estimated to be paid within twelve months to the members of the personnel when they are absent for annual, saved or compensation leave reasons.

7.1.7. *REVENUE*

Contributions and special contributions from Member States are non-exchange transactions which are recognised in the period in which the transfer arrangement becomes binding.

EU contributions and revenue from Knowledge Transfer are recognised as revenue according to the stage of completion of the various projects involved. The yearly amounts allocated to revenue are based on the related projects' expenses.

The other revenue mainly concerns:

- bank interest earned on the short-term deposits in various currencies at certain times of the year. The amount of interest varies from year to year depending on the funds available, i.e. the receipt of contributions from the Member States and the timing of personnel and materials expenses and on the evolution of the market rates;
- sale of scrap, obsolete equipment, rents, overnight stays at CERN hostels, revenue from Collaborations and miscellaneous revenue. These are recorded at the time of the transactions;

- in-kind contributions to property, plant and equipment which are recognised as revenue and incorporated into the property, plant and equipment at the date of start-up;
- for all the in-kind contributions below, the amounts shown in revenue are offset by similar amounts shown in expenses:
 - in-kind contributions resulting from the advantage granted to the Organization from loans without interest. The estimate is based on the equivalent interest rates prevailing when the loans were granted;
 - in-kind contributions resulting from the advantage granted to the Organization from various supplies made available without charge.

Following the change in accounting policy for Property, Plant and Equipment, land is included in the assets of CERN and revalued annually. Therefore there will no longer be in-kind contribution revenues and offsetting expenses recorded as a result of the advantage granted to the Organization of the right to use land with minimal or no charge.

7.1.8. INTERNAL TAXATION

In accordance with document CERN/FC/4914 - CERN/2599, the system of internal taxation of remuneration, payments and other financial benefits was introduced with effect from 1 January 2005.

The amount shown in revenue is offset by a similar amount shown under Personnel expenses.

7.1.9. FINANCIAL INSTRUMENTS

Effective 1 January 2013, CERN adopted IPSAS 28 Financial instruments: Presentation, IPSAS 29 Financial instruments: Recognition and measurements, IPSAS 30 Financial instruments: Disclosures. A financial instrument is any contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity.

Financial instruments are split into the categories of financial assets or financial liabilities as defined in IPSAS 29: financial assets and liabilities at fair value through surplus or deficit (designated upon initial recognition), held to maturity investments, loans and receivables, available-for-sale financial assets and financial liabilities measured at amortized cost. The classification of the financial assets and financial liabilities determines the measurement after initial recognition; either at fair value, or at amortized cost. Carrying value is the amount at which the financial instruments are recognized in the statement of financial position. Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

The Organization's financial assets include: cash and cash equivalents, trade and other receivables, other financial assets, derivative financial instruments and quoted financial instruments, most of which are held in the CERN Health Insurance Scheme (CHIS) fund.

The Organization's financial liabilities include: trade and other payables, short-term debt and bank overdrafts, long-term debts.

CERN's financial instruments measured at fair value through the surplus or deficit are designated at initial recognition. The instruments are revalued at the value quoted in an active market on the balance sheet date. The resulting gains and losses appear in the Statement of Financial Performance. Typical examples are derivatives, specifically forward-rate agreements and foreign currencies options. The Organization uses these types of financial instruments for the purpose of managing its exposure to currency fluctuations and interest rate risks (refer to note 7.25).

7.2. COMMITMENTS NOT SHOWN IN THE STATEMENT OF FINANCIAL POSITION

Some memoranda accounts which do not appear in the Statement of Financial Position are given below. They relate to the Pension Fund, guarantees received or given by the Organization and future commitments to suppliers.

7.2.1. PENSION FUND

As mentioned in section 7.1.1, although the Pension Fund is legally part of the Organization, its accounts are reported separately.

7.2.2. BANKER'S GUARANTEES IN OUR POSSESSION

The following amounts relate to banker's guarantees provided by various suppliers in connection with CERN contracts. The amounts corresponding to these guarantees is shown below:

kCHF	Banker's guarantees	
	As at 31.12.2015	As at 31.12.2014
Currency		
CHF	9 951	10 589
DKK	115	130
EUR	22 596	27 554
GBP	537	653
JPY	711	678
NOK	112	47
SEK	10 334	85
USD	6 147	3 466
Total	50 503	43 202

7.2.3. BANKER'S GUARANTEES GIVEN BY CERN

As at 31 December 2015, CERN has provided the following guarantees:

- 175.5 kUSD to ICANN Internet Corporation for Assigned Names and Numbers (175.5 kUSD in 2014);
- 7.6 kCHF to agencies to guarantee rentals of Housing Fund apartments (7.6 kCHF in 2014);
- 34.3 kCHF to the Prefecture de l'Ain to guarantee for the transfer of waste (72.6 kCHF in 2014).

7.2.4. FUTURE COMMITMENTS TO SUPPLIERS

kCHF	Future commitments			
	As at 31.12.2015		As at 31.12.2014	
	Year 2016	Year 2017 and further	Year 2015	Year 2016 and further
Currency				
CHF	11 541	15 051	12 717	10 757
EUR	36 610	20 599	50 590	30 586
USD	3 000	8 009	8 117	7 888
GBP	2 580	2 386	2 444	5 111
OTHERS	1 754	1 426	497	2 877
	55 486	47 470	74 364	57 220
Total	102 956		131 584	

7.3. PROPERTY, PLANT AND EQUIPMENT

7.3.1. PROPERTY, PLANT AND EQUIPMENT AVAILABLE FOR USE

The changes for the period in the net book value of the Property, Plant and Equipment (PPE) available for use are detailed in the following table. Note that following the review of the CERN accounting policy for PPE, the beginning balances of the reporting period have been restated.

kCHF	Gross Balance as at 31/12/2014 (restated)	Additions 2015	Disposals and Transfers 2015	Gross balance as at 31/12/2015
	a	b	c	d=a+b-c
Scientific Programmes				
LHC Programme	8 367 236	113 317	4 886	8 475 666
Other Programmes	2 357 771	170 798	3 971	2 524 598
	10 725 007	284 114	8 857	11 000 264
Non Scientific Programmes				
General Facilities and Logistics	902 032	36 184	9 496	928 720
Informatics	26 323	1 519	940	26 902
Manufacturing Facilities	110 968	4 221	1 314	113 875
Safety, Health and Environment	50 834	5 746	472	56 108
Outreach	5 116	1 562		6 678
Land	168 382		7 949	160 433
	1 263 654	49 232	20 171	1 292 716
PPE - available for use	11 988 661	333 346	29 028	12 292 980

kCHF	Accumulated Depreciation as at 31/12/2014 (restated)	Recognized in 2015	Disposals 2015	Accumulated Depreciation as at 31/12/2015	Net book value as at 31/12/2014 (restated)	Net book value as at 31/12/2015
	31/12/2014 (restated)	2015	2015	31/12/2015		
	e	f	g	h=e+f-g	i=a-e	j=d-h
Scientific Programmes						
LHC Programme	2 513 156	316 619	2 847	2 826 928	5 854 080	5 648 738
Other Programmes	1 234 445	49 213	3 247	1 280 411	1 123 326	1 244 187
	3 747 601	365 832	6 094	4 107 339	6 977 405	6 892 925
Non Scientific Programmes						
General Facilities and Logistics	561 778	19 157	8 038	572 897	340 254	355 822
Informatics	14 062	2 431	774	15 718	12 261	11 184
Manufacturing Facilities	49 649	3 112	627	52 135	61 319	61 740
Safety, Health and Environment	22 831	4 280	181	26 930	28 003	29 179
Outreach	2 014	786		2 800	3 102	3 878
Land	650 333	29 767	9 621	670 480	168 382	160 433
PPE - available for use	4 397 934	395 599	15 715	4 777 819	613 322	622 236
					7 590 728	7 515 161

Details of the total additions to PPE Scientific Programmes of 284.1 MCHF are the following.

- In 2015, with the completion of LS1, various facilities have been consolidated or upgraded. This resulted in additions to the PPE register for 110.4 MCHF in LHC Programme (LHC machine 36.5 MCHF, LHC computing 12.5 MCHF and LHC detectors 61.4 MCHF), and 160.9 MCHF in the other scientific facilities, of which 51.8 MCHF dedicated to the LINAC4, now effectively fully operational.
- In the same context, some machine buildings for both LHC and other facilities have been consolidated or renewed, for a total amount of 12.8 MCHF. These additions for the buildings plus the additions mentioned above for LHC and other scientific facilities, explain the total additions of 284.1 MCHF to Scientific Programmes.

Details of the total additions to PPE Non Scientific Programmes of 49.2 MCHF are the following:

- PPE in General infrastructure and Logistics have increased by 36.2 MCHF in 2015, mainly due to tertiary buildings completion or consolidation (22.6 MCHF), with their associated heavy handling equipment (6.3M CHF).
- Additional equipment or replacements for 13 MCHF also occurred in other activities such as Safety, Informatics, Manufacturing facilities and Outreach.

Details of the total disposals and transfers for PPE available for use of 29.0 MCHF are the following

- All the above-mentioned consolidation and renovation works generated a disposal of 5.8 MCHF in tertiary buildings corresponding to the value of replaced equipment or construction.
- Other replacements in machine buildings or renewals in single or pools of equipment generated an additional 15.3 MCHF disposal (4.9 MCHF in LHC programme - of which 2.9 MCH are related to renovation of machine buildings -, 4.0 MCHF in Other programmes and 6.4 MCHF in the Non Scientific programmes).
- The French and Swiss lands have been revalued downwards in 2015 by 7.9 MCHF. This revaluation does not impact the statement of financial performance given that land is measured following the revaluation method.

The accumulated depreciation related to the above mentioned disposals equals 15.7 MCHF. After excluding both land under revaluation method (7.9 MCHF) and the impact from assets that are transferred between programmes but not written-off (0.5 MCHF), the net value of write-off impacting the statement of financial performance amounts to 4.9 MCHF.

7.3.2. PROPERTY, PLANT AND EQUIPMENT IN PROGRESS

The changes for the period in the gross balance of the PPE in progress are detailed in the following table.

There is no depreciation as the assets in question are still under construction as at 31 December 2015. Note that following the review of the CERN accounting policy for PPE, the beginning balances of the reporting period have been restated.

kCHF	Gross balance as at 31/12/2014 (restated)	Additions		Disposals and Transfers 2015	Gross balance as at 31/12/2015			
		2015						
		a	b					
PPE in progress								
<u>Scientific Programmes</u>								
LHC programme								
LHC access systems upgrade	5 565	472	1 971	4 066				
LHC machine and areas reliability and consolidation	71 207	19 934	34 158	56 983				
LHC detectors consolidation	9 674	320	9 674	320				
LHC detectors upgrade	34 801	13 933	34 801	13 933				
LHC luminosity upgrade (HL-LHC)	56 683	40 571	1 097	96 157				
LHC spares	7 957	2 175	1 537	8 595				
CERN control centre consolidation		144		144				
	185 887	77 548	83 238	180 197				
Other programmes								
Magnet infrastructure upgrade	2 158	283	1 435	1 007				
LHC injectors upgrade	68 362	25 705	17 880	76 188				
18 kV loop+substations SPS consolidation	21 773	336	20 271	1 838				
66/18 kV loop PS consolidation	29	1 797	42	1 785				
PS and SPS spares	1 388	269		1 657				
Accelerators consolidation	41 225	11 136	38 172	14 189				
AD consolidation	545	1 231	722	1 055				
Proton plasma wakefield acceleration (AWAKE)	27 395	5 876		33 271				
CLIC	17 896	9 787	15 907	11 776				
East area consolidation	1 309	585	1 784	111				
ELENA	16 684	12 071	2 735	26 021				
FAIR	1 522	3 700		5 222				
HIE ISOLDE	41 158	11 595	10 963	41 790				
ISOLDE robots	2 403	183	2 586					
LINAC4	83 496	9 112	51 848	40 760				
NA62	22 131	2 119		24 249				
CERN Neutrino platform	1 875	8 808	38	10 645				
SM18 upgrade	77	4 147		4 224				
MEDICIS	2 147	2 105		4 252				
North area consolidation	3 212	2 453	1 256	4 408				
PCB workshop machine	3	274		277				
	356 791	113 574	165 639	304 725				
Sub-total Scientific Programmes	542 677	191 122	248 877	484 922				
Non Scientific Programmes								
<u>General Infrastructure and Services</u>								
Building 107 (Surface Treatment)	18 002	683	40	18 644				
Building 156 LHCb	1	818		818				
Building 311 Renovation		670		670				
Building 771 Polymerlab		202		202				
Building 774 (Prevessin Main Building)	15 702	2 876		18 577				
LHCb building	1 524	2 346		3 871				
Building 38 (Hotel Renovation)	82	2 468	2 550					
Renovation globe of science and innovation	207	1 985		2 192				
Mobility center		226		226				
Globe car park and structure	2 934		2 934					
Surface and technical infrastructure consolidation	9 036	8 348	15 162	2 222				
Miscellaneous	9 544	5 404	8 955	5 993				
<u>Informatics</u>								
IT network HUB		19		19				
<u>Safety, Health and Environment</u>								
Consolidation of calibration hall	3 314	473	3 787					
RAMSES II light	7 289	1 158		8 447				
<u>Outreach</u>								
Visitpoint	1 698	19	1 717					
Particules place	1	44		45				
Idealab building	1 553	137	1 690					
<u>Workshop</u>								
Investment in new mechanical technologies	162	568	467	263				
Sub-total Non Scientific Programmes	71 048	28 443	37 303	62 188				
Total PPE - in progress	613 726	219 565	286 180	547 110				
			- 66 615					

7.4. INTANGIBLE ASSETS

7.4.1. INTANGIBLE ASSETS AVAILABLE FOR USE

The changes for the period in the net book value of the completed intangible assets (available for use) are detailed in the following table. Note that following the review of the CERN accounting policy for software, the beginning balances of the reporting period have been restated.

kCHF	Gross Balance as at 31/12/2014 (restated)	Additions 2015	Disposals and Transfers 2015	Gross balance as at 31/12/2015
	a	b	c	d=a+b-c
Scientific Programme				
Internally developed software	64 845	38 955		103 800
Development on external origin software	2 459	1 324		3 783
Purchase of external origin software	500			500
	67 804	40 279		108 084
Non Scientific Programme				
Internally developed software	15 921	5 866		21 786
Development on external origin software	3 132	1 716		4 848
Purchase of external origin software	4 148	235		4 383
Knowledge Transfer Patents		20		20
	23 201	7 838		31 038
Total Internally developed software	80 766	44 821		125 587
Total Development on external origin software	5 591	3 040		8 632
Total Purchase of external origin software	4 648	235		4 883
Total KT Patents		20		20
Total Intangible Assets - available for use	91 005	48 117		139 122

kCHF	Accumulated Amortization as at 31/12/2014 (restated)	Recognized in 2015	Disposals 2015	Accumulated Amortization as at 31/12/2015	Net book value as at 31/12/2014 (restated)	Net book value as at 31/12/2015
	e	f	g	h=e+f-g	i=a-e	j=d-h
Scientific Programme						
Internally developed software	6 077	7 395		13 472	58 768	90 329
Development on external origin software	147	198		345	2 312	3 438
Purchase of external origin software	250	100		350	250	150
	6 474	7 693		14 167	61 330	93 917
Non Scientific Programme						
Internally developed software	3 351	2 968		6 319	12 570	15 467
Development on external origin software	747	688		1 435	2 385	3 414
Purchase of external origin software	1 267	794		2 061	2 881	2 322
Knowledge Transfer Patents		1		1	20	
	5 365	4 451		9 816	17 836	21 223
Total Internally developed software	9 428	10 363		19 791	71 338	105 796
Total Development on external origin software	894	886		1 780	4 697	6 852
Total Purchase of external origin software	1 517	894		2 411	3 131	2 472
Total KT Patents		1		1		20
Total Intangible Assets - available for use	11 839	12 143		23 982	79 166	115 140

The amortization is recognized under the heading “Depreciation and amortization expenses” in the Statement of Financial Performance.

7.4.2. INTANGIBLE ASSETS IN PROGRESS

The changes for the period in the gross balance of the intangible assets in progress are detailed in the following table.

There is no amortization as the assets in question are still under development as at 31 December 2015.

Note that following the review of the CERN accounting policy for intangible, the beginning balances of the reporting period have been restated.

	kCHF	Gross balance as at 31/12/2014 (restated)	Additions 2015	Disposals and Transfers 2015	Gross balance as at 31/12/2015
		a	b	c	d=a+b-c
Intangible assets in progress					
Scientific Programme					
Internally developed software		15 401	1 661	13 024	4 038
Development on external origin software		357		357	
		15 758	1 661	13 382	4 038
Non Scientific Programme					
Internally developed software		446	708	12	1 142
Development on external origin software		316	14	316	14
Knowledge Transfer Patents		201	83	20	263
		963	804	348	1 419
Total Internally developed software		15 847	2 369	13 036	5 180
Total Development on external origin software		673	14	673	14
Total KT Patents		201	83	20	263
Total Intangible Assets - in progress		16 721	2 466	13 729	5 457
				- 11 264	

7.5. INVENTORIES

Inventories consist of cables, standard parts, equipment, accessories, chemicals, raw materials and consumables used for CERN engineering and research operations, as well as for infrastructure and administration requirements.

	kCHF	As at 31.12.2015	As at 31.12.2014 (restated)
Gross value		15 642	18 715
Depreciation		- 1 314	- 1 870
Total		14 328	16 846

7.6. RECEIVABLES

7.6.1. MEMBER STATES

The amount shown in the Statement of Financial Position under this sub-heading can be broken down as follows:

kCHF	As at 31.12.2015	As at 31.12.2014
Contributions - Greece	31 701	25 373
Contributions - Portugal	4 673	8 299
Contributions - Spain	34 030	51 486
Contributions - Israel	-	1 832
Contributions - Italy	8 761	-
Receivables from Member States	79 165	86 991
Contributions - Serbia	1 000	1 000
Receivables from Associate Member States	1 000	1 000
TOTAL	80 165	87 991

In September 2015, the CERN Council approved a Plan of Measures in order to limit the impact on their member states for the effects of the Swiss franc appreciation on 15 January, 2015 following the Swiss National Bank's decision to discontinue the guaranteed minimum exchange rate of 1.20 CHF to 1 EUR. Details of this Plan of Measures are available in document CERN/FC/5931 – CERN/3196.

As a result, CERN has granted a one-off rebate on the Member State contributions for 2015 equal to 60 MCHF. The rebate redefined the amount of the 2015 Member State contributions, and so is accounted for as a reduction in Member State Contribution revenues in the year. The rebate was used to reduce the contributions receivable from Member States, or as an advance towards their 2016 contributions, or as a special contribution to CERN, depending on what was agreed with each Member State.

7.6.2. TAXES

The amount shown in the Statement of Financial Position under this sub-heading can be broken down as follows:

kCHF	As at 31.12.2015	As at 31.12.2014
French VAT	13 387	17 818
VAT other Member States	600	900
Swiss taxes and levies	228	312
Total	14 215	19 029

7.6.3. TEAMS AND COLLABORATIONS

The various Teams and Collaborations owed 4.9 MCHF at the end of 2015 (7.8 MCHF in 2014). There exists also a liability to the Teams and Collaborations in the Liabilities section, the two balances being the result of the transactions arising from the collaborations and research institutes' participation in experiments at CERN. The liability to Teams and Collaborations at the end of 2015 was 183.6 MCHF (183.9 MCHF in 2014). For more details, refer to note 7.16.2.

7.6.4. OTHER RECEIVABLES AND PREPAYMENTS

The amount shown in the Statement of Financial Position under this sub-heading can be broken down as follows:

kCHF	As at 31.12.2015	As at 31.12.2014 (restated)
Advances to suppliers	5 814	3 761
Revenues to be received	4 165	4 182
Expenses in advance	7 251	9 634
Sundry debtors	7 210	3 459
Total	24 440	21 036

7.7. OTHER FINANCIAL ASSETS

At 31 December 2015, CERN held no short-term deposit (50 MCHF in 2014).

7.8. CASH AND CASH EQUIVALENTS

The variations of cash and cash equivalents between 31 December 2014 and 31 December 2015 are explained in the Cash-Flow Statement (section 4).

7.9. NET ASSETS

In 2015, the net assets increased by 463 MCHF from the 2014 restated net asset balance of -1 061 MCHF. This variation is mainly due to the following:

- net deficit for 2015: 268 MCHF (net deficit prior to restatement for 2014: 259.6 MCHF);
- losses on revaluation of land: 7.9 MCHF (gain of 15.8 MCHF in 2014)
- actuarial gains on post-employment benefits 2015: 738.9 MCHF (actuarial losses in 2014: 2 383 MCHF and adjusted for the cumulative impact of restatement to 2 531.3 MCHF).

For reference, prior to restatement the 2014 variation to net assets was -2 642 MCHF and the net asset balance at 31 December 2014 was -2 298 MCHF. The 2014 restated variation in net assets was -1 405 MCHF, being the original variation of -2 642 MCHF offset for the overall cumulative impact of changes in accounting methods 1 237 MCHF.

The value of the Net Assets is highly sensitive to the variation of the discount rate used to calculate the obligation for post-employment benefits since the obligation is significant relative to the rest of the financial position. The discount rate used at 31 December 2015 is 1.35%, higher from the previous year rate of 0.81%. Refer to note 7.13 on Post Employment benefits for details of changes in the accounting estimates used.

The reconciliation with the cumulative budget deficit is summarised in the table below:

MCHF	as at 31.12.2012	Var.* 2013	as at 31.12.2013	Var.* 2014 Cumulative Restatemem	as at 31.12.2014 Restated	Var.* 2015	as at 31.12.2015
Cumulative Budget Balance	- 61	- 40	- 100	- 0	- 100	- 33	- 133
SIG Debt- Impact of the annual repayment	28		28		28		28
SIG Debt - Impact of interest	- 14		- 14		- 14		- 14
Cumulative Budget Balance after SIG adjustments	- 47	- 40	- 85	- 0	- 85	- 33	-118
Accounting reconciliation							
PPE: gross value less depreciation	7 204	- 59	7 145	- 71	7 075	- 110	6 965
PPE: changes in accounting methods				1 237	1 237	- 8	1 229
Capital repayments (loans)	- 417	23	- 394	24	- 371	24	- 346
Capital repayments (SIG)	- 50	3	- 47	3	- 44	33	- 12
Personnel: Paid leave and CA22	- 102	17	- 85	17	- 68	17	- 50
Post employment benefits (actuarial gains & losses)	- 8 698	2 771	- 5 927	- 2 531	- 8 458	739	- 7 719
Post employment benefits (employer cost)	- 80	- 123	- 203	- 82	- 285	- 153	- 438
Provision: Elimination of waste	- 392	306	- 86	- 2	- 88	- 46	- 134
Others	27		27		27		27
Net Assets	- 2 554	2 898	344	- 1 405	- 1 061	463	- 598

* Variation

7.10. LONG-TERM DEBTS

This heading includes amounts expected to be settled after more than twelve months from the reporting date:

kCHF	As at 31.12.2015	As at 31.12.2014
BNP FORTIS	273 182	297 185
FIPOI	34 685	35 791
Total	307 868	332 976

7.10.1. BNP FORTIS

As approved by the Council in June 2006¹, a loan with an initial amount of 462.9 MCHF has been taken out with FORTIS Bank for the purpose of repaying the Organization's debt to the Pension Fund. As at 31 December 2015, the outstanding debt is 297.2 MCHF (320.4 MCHF in 2014). The loan is expected to be fully repaid by 2026.

kCHF	Less than 12 months	More than 12 months	Total
Capital	24 003	273 182	297 185
Total	24 003	273 182	297 185

7.10.2. FIPOI

In line with the decision of the Swiss Federal Chambers in 1996, no interest is charged on the loans granted by FIPOI for the construction of buildings at CERN. Initial amounts of the three FIPOI loans amount to 53.2 MCHF. As at 31 December 2015, the outstanding debt is 35.8 MCHF (36.9 MCHF in 2014). The loans are expected to be fully repaid by 2035, 2047, and 2060 respectively.

kCHF	Less than 12 months	More than 12 months	Total
Capital FIPOI 1 - Buildings 32 & 33	210	3 998	4 208
Capital FIPOI 2 - Building 40	669	20 744	21 413
Capital FIPOI 3 - Building 42	226	9 944	10 170
Total	1 106	34 685	35 791

7.10.3. SIG

Under the contract for the supply of water (E059) awarded to SIG (Services Industriels de Genève) and relating to investments in infrastructure, CERN had an outstanding debt of 32.6 MCHF as at 31 December 2014. This amount appeared as short-term debt in the current liabilities on the Statement of Financial Position. This debt has been repaid in full during 2015 following negotiations for early repayment with a penalty of 2.5 MCHF. The penalty appears in the Statement of Financial Performance under the heading Financial expenses. Compared to the remaining outstanding interest to be paid based on the original loan terms, the payment of this penalty has resulted in a saving to CERN of 4.8 MCHF.

¹ CERN/FC/5051 – CERN/2676

7.11. CHIS FUND

In December 2007, the Council approved the set-up of a fund for the CERN Health Insurance Scheme (CERN/FC/5209 - CERN/2759).

- A)** The amount shown in the assets of the Statement of Financial Position can be broken down as follows:

kCHF	As at 31.12.2015	As at 31.12.2014
Shares and bonds	179 990	170 158
Deposits and bank accounts	24 243	17 428
CHIS contractor	2 189	1 821
Miscellaneous	- 1 773	- 16
Withholding tax	380	868
Total	205 027	190 259

- B)** In order to enhance the visibility of the CHIS, the following table shows the distinction between Health Insurance Scheme (HIS) and Long Term Care (LTC).

kCHF	As at 31.12.2015	As at 31.12.2014
CHIS Fund - HIS	102 951	90 173
CHIS Fund - LTC	40 641	37 768
Sub-total Plan Assets	143 592	127 941
Accrued benefits on LTC allowances - long term	34 355	35 881
Sub-total Long Term Liabilities	177 946	163 822
Accrued benefits on HIS repayments - short term	19 681	19 112
Accrued benefits on LTC allowances - short term	7 400	7 325
Total	205 027	190 259

- C) The change in the CHIS Fund balance is the result of Health and LTC movements throughout the year, a breakdown of which is shown in the following table.

HEALTH INSURANCE SCHEME (HIS)	kCHF
Position as at 31.12.2014	109 285
Ordinary contributions	93 168
Health benefits paid	- 75 926
Contractor fees and overheads	- 1 604
Financial gain on financial assets	- 2 291
Position as at 31.12.2015	122 632
LONG TERM CARE (LTC)	kCHF
Position as at 31.12.2014	80 974
Ordinary contributions	8 959
LTC benefits paid	- 5 982
Contractor fees and overheads	- 16
Financial gain on financial assets	- 1 539
Position as at 31.12.2015	82 395
Total	205 027

The 2015 financial performance of the funds invested with UBS and SARASIN banks amounted to -3.8 MCHF (9.7 MCHF in 2014). This performance is based on a valuation of the portfolio at market prices as at 31 December 2015. The gross yield is -1.97% in 2015 compared to 5.8 % in 2014.

7.12. OTHER LIABILITIES - MEMBER STATES

The amount shown in the Statement of Financial Position under this sub-heading corresponds to the ppbar contributions from Member States. The ppbar improvement project was presented to, and approved by, the Council in December 1983.

In February 1984, the Director-General's proposals for the funding of the project were approved by the Finance Committee (CERN/FC/2711 - CERN/CC/1526). Part of the financing procedures for the project was based on loans received from Member States during the first few years. In addition, it was decided to index the sums received from the date of receipt of funds to the date of repayment. Indexation is based on the overall cost-variation index for the indexation of Member States' contributions granted by the Council. The indexation rate for 2015 was 0% (no change from 2014).

As recommended by the previous External Auditors, the Management sent a letter to the Member States concerned in March 2013 in order to find a mutually acceptable solution to settle the outstanding amounts. At the end of 2015, the outstanding balance of 2 277 kCHF relates to Switzerland.

7.13. POST-EMPLOYMENT BENEFITS

The post-employment benefit provisions cover obligations of uncertain amount and timing.

kCHF	As at 31.12.2015	As at 31.12.2014
Pension scheme	5 536 959	5 903 633
CERN Health Insurance Scheme (CHIS)	2 618 879	2 837 594
Post-employment benefits	8 155 838	8 741 227

As required by IPSAS 25 and explained in 7.1.6.3, post-employment benefits represent the estimated actuarial liability of defined-benefit plans for pension benefits and post-employment CERN Health Insurance Scheme (CHIS) benefits towards employed and retired members of the CERN personnel as at the reporting date.

The principle underlying the IPSAS 25 requirements is to recognize the cost of providing employee benefits in the period in which the benefit is earned by the employee, rather than when it is paid or payable.

Since both the pension plan and post-employment medical care plan are defined-benefit plans, under IPSAS 25 the related liability that should be recognised in the statement of financial position is equal to the net total of:

- the present value of the defined-benefit obligation (the present value of expected future payments required to settle the obligation resulting from employee service in the current and prior periods);
- plus/minus any deferred actuarial gains/losses minus any deferred past service costs;
- minus the fair value of any plan assets at the reporting date.

The estimate of post-employment benefits according to IPSAS 25, and as accounted for in these financial statements, can be characterised as having a focus on the existing liability and the current period charges at the reporting date. The objective is not to assess the future funding of the liability, only to show there is a liability to be funded. The calculation of the probable future cost of benefits already earned therefore includes a salary evolution assumption, but does not reflect expected future financing and contributions to the schemes.

By contrast, the approach used by CERN to assess the funding has the objective of showing whether the long term equilibrium of the scheme in question will be reached. Under this approach, the review is done on an open-fund basis, taking into account any remedial measures and all future expected contributions to the schemes.

a) Net Liability

The amounts recognised under IPSAS 25 in the Statement of Financial Position are determined as follows:

kCHF	As at 31.12.2015	As at 31.12.2014
Pension Benefits		
Future benefits obligation	9 288 115	9 645 561
Plan assets *	-3 751 156	-3 741 928
Net liabilities	5 536 959	5 903 633
CHIS Benefits		
Future benefits obligation	2 762 471	2 965 535
Plan assets	- 143 592	- 127 941
Net liabilities	2 618 879	2 837 594

* Based on the amount of the net assets provided by the Pension Fund on 04 March 2016

b) Actuarial assumptions

The calculation of the present value of defined-benefit obligations is based on demographic and financial assumptions. The principal actuarial assumptions used by the actuaries for calculation as at 31 December 2015 were as follows:

	As at 31.12.2015		As at 31.12.2014	
	Pension benefits	CHIS benefits	Pension benefits	CHIS benefits
Discount rate	1.35%	1.35%	0.81%	0.81%
Future salary increase	2.85%	2.85%	3.50%	3.50%
Future pension increase	1.35%	1.35%	1.00%	1.00%
Future health cost increase		3.00%		3.00%
Return on plan assets	4.78%	3.50%	4.00%	3.50%
% of award of indefinite contracts	50.00%	50.00%	50.00%	50.00%
	83% VZ2010 GEN	83% VZ2010 GEN	VZ2010 GEN	LPP 2010
Demographic tables				

According to the IPSAS 25 accounting standard, financial assumptions shall be based on market expectations, at the reporting date, for the period over which the obligations are to be settled. The rate used to discount post-employment benefit obligations shall reflect the time value of money, and the currency and term of the rate shall be consistent with the currency and estimated term of the liabilities.

The discount rate used at CERN since 2007 is the long-term (30-year) Swiss Confederation Bond interest rate. A review of the discount rate was made in 2015 as a result of a recommendation from the external auditors. Following this review, CERN decided to continue to use the interest rate on the long-term Swiss Confederation Bonds as the reference rate for the time value of money. However, it was decided to adopt the principle that the discount rate should never fall below the best estimate of future inflation. This principle addresses the issue of volatility noted by the external auditors, and is considered to result in a better approximation of the time value of money. At 31 December 2015, the 30-year Swiss Confederation Bond interest rate was 0.7%. Since this is below the average long term inflation rate compounded to be 1.35% per annum as the best estimate provided by the external risk advisor of the Pension Fund at 31 December 2015, the rate of 1.35% has been used as the discount rate estimate. Note that the inflation assumption of the average 1.35%p.a. is the weighted average based on the inflation assumption suggested by the Pension Fund's risk advisor of 1.00% p.a. from 2016 to 2024 and 1.50% p.a. for 2025 onward.

In addition to a review of the discount rate estimate used for the actuarial assumptions, a number of other actuarial assumptions were updated in 2015 to reflect the best estimates for actuarial assumptions discussed during the Funding Review performed by the Pension Fund. Since the actuarial calculation for the IPSAS compliant financial statements has a different objective than the periodic funding review actuarial calculation, it was not appropriate to adopt all the assumptions from the funding review, but the following financial assumptions have been updated

- Future salary increase: the future salary increase is based on the estimated salary increase linked to inflation of 1.35%, and the salary increase linked to career change of 1.5%.
- Future pension increase: the best estimate of future inflation is revised to 1.35% to be in-line with Pension Fund's risk advisor suggestion.
- Return on Pension fund assets: the revision is made in order to be in-line with the best estimate of asset return suggested by the Pension Fund's risk advisor.

The following demographic assumptions have been updated.

- Demographic tables: following an analysis of the mortality experience of the Pension Fund over the years 2003 to 2015, the actuaries proposed that CERN's best estimate for the mortality assumption of the pension fund is 83% of the VZ2010 base table. Since the population eligible for the CHIS post-employment benefits is largely overlapping, the same assumptions are used as a simplification.
- Method of evaluating benefits in case of exit: for the Pension Fund post-employment benefits liability, 18% transfer value / 82% present value of accrued deferred pension

- Retirement age: for the Pension Fund liability, based on the Xerox early retirement study, retirement age of 64 on average.
- Proportion married: for the Pension Fund liability, the proportion married has been adjusted to reflect the increase in the proportion married following CERN's choice to recognise registered partnerships as part of the 2015 five yearly review. The 2015 assumption is consistent with the age dependent decrement tables contained within VZ2010, increased by 3.8% on average being the best estimate impact.

c) Sensitivity of the discount rate

As a consequence of the post-employment benefit liability's sensitivity to the discount rate, and due to the systematic change of such a sensitive parameter, it can be difficult to compare present value from year to year. As shown in the table below, an increase or decrease of half a percentage point in the assumed discount rate would result in a significant change in the present values of pension benefits and health cover obligations.

	As at 31.12.2015	
	Pension benefits	CHIS benefits
Present value of future benefits obligation (in MCHF)	9 288	2 762
Effect if increase of + 0.5% point in discount rate (in MCHF)	- 845	- 345
Effect if increase of + 0.5% point in discount rate (in %)	-9.1%	-12.5%

Since the CERN Pension Fund holds the retirement benefits for both CERN and ESO members, the plan assets deducted from the Pension benefits obligation has been calculated by the independent actuary on a prorata basis of the employers' obligations and based on the amount of net assets provided by the Pension Fund on 04 March 2016.

The plan assets deducted from the CHIS benefits obligations consist of 143.6 MCHF (127.9 MCHF in 2014). Refer to note 7.11.B regarding the CHIS fund.

d) Evolution of the net liabilities

The change in net liabilities resulted in the following:

MCHF	As at 31.12.2015		
	Pension benefits	CHIS benefits	Total
Net liabilities as at 31.12.2014	5 903	2 838	8 741
Employer cost*	75	79	153
Actuarial variations**	- 442	- 297	- 739
Total of the annual variation	- 367	- 219	- 585
Net liabilities as at 31.12.2015	5 537	2 619	8 156

- * The Employer cost heading corresponds to the difference between the employer's actual contributions for the year and the estimated cost for the year calculated according to the actuarial assessment made at the end of the previous year. The actuarial assessment corresponds to the sum of the service cost and the interest cost, minus the expected return
- ** The actuarial variations are attributable to changes in the actuarial assumptions and to adjustments to take account of what has actually occurred (differences between what has occurred and the estimates made using assumptions).

The table below shows the detailed variations over the three previous years:

MCHF	as at 31.12.2012	Var. 2013 (restated)	as at 31.12.2013	Var. 2014 (restated)	as at 31.12.2014	Var. 2015	as at 31.12.2015
Net Liabilities - Pension benefits	5 319	- 1 256	4 062	1 841	5 903	- 367	5 537
Discount rate used in the actuarial assumptions	1.16%		1.97%		0.81%		1.35%
Impact of the change in the discount rate		- 1 288		1 851		- 932	
Impact of revised demographic tables				- 71		497	
Various adjustments		- 51				- 6	
Total - Actuarial variations		- 1 339		1 780		- 442	
Employer cost		83		61		75	
Net Liabilities - CHIS benefits	3 457	- 1 391	2 066	772	2 838	- 219	2 619
Discount rate used in the actuarial assumptions	1.16%		1.97%		0.81%		1.35%
Impact of the change in the discount rate		- 707		803		- 415	
Impact of revised demographic tables				- 652		167	
Impact of the change in medical costs assumptions				- 148		- 49	
Various adjustments							
Total - Actuarial variations		- 1 491		696		- 298	
Employer cost		116		76		79	

In summary, for 2015:

- for the Pension benefits net liabilities, the main variation is due to the impact of the change in the discount rate -932 MCHF (1 851 MCHF in 2014) offset by the change in the demographic tables 497 MCHF (0 in 2014).
- for the CHIS benefits net liabilities, the main variations are due to the impact of the change in the discount rate -415 MCHF (803 MCHF in 2014) offset by the change in the demographic tables 167 MCHF (0 in 2014).

e) Pension Fund

Since 2008, the Pension Fund Governing Board has used for the Financial Statements of the Pension Fund a set of assumptions in line with the requirements of IAS 26. The funding ratio under another set of assumptions is included in an annex to the Pension Fund's Financial Statements for information purposes:

- the first set of assumptions follows the IPSAS principles and IAS 26 (i.e. using the discount rate of 1.35%). At the end of 2015, the IPSAS coverage ratio of the Pension Fund calculated according to this set is 40.4% compared to 38.8% at the end of 2014;
- the second set of assumptions reflects the actuarial assumptions referred to as "Best Estimate". At the end of 2015, the funding ratio of the Pension Fund calculated according to this set is 73.0% compared to 72.6 % at the end of 2014 (amount restated for the Best Estimate assumptions using data as at 31 December 2014).

7.14. OTHER PROVISIONS

These provisions cover obligations of uncertain amount and timing.

kCHF	Comments	As at 31.12.2015	As at 31.12.2014
Radioactive waste management	A	133 872	87 978
Paid leave - long term portion	B	79 807	78 283
Damages on accidents and defects	C	550	1 005
Obligations under special contributions	D	9 451	
Others		223 680	167 267

Details of provisions recognised

A) Radioactive waste management

The disposal costs for radioactive waste from CERN's facilities are assessed annually in the framework of the evaluation of CERN's financial commitments.

The Tripartite Agreement on radiation safety and radiation protection signed on 15 November 2010 by CERN and its Host States represented by the Swiss Federal Office of Public Health (OFSP) and the French Authority for Nuclear Security (ASN), foresees that the CERN's radioactive waste will be disposed of through the different elimination pathways available in the two Host States according to their applicable legislation. The Tripartite Agreement further stipulates that the parties will aim to divide the radioactive waste fairly between the two Host States taking into account quantity, toxicity and total activity of the radioactive waste as well as the cost of disposal.

Starting from 2013, the calculation of the disposal costs takes into account the provisions in the Tripartite Agreement and the elimination pathways that have been opened since its entry into force. The costs per unit of volume of disposed waste are based on recent experience (waste disposal campaigns performed in 2011-2015) as well as on updated estimates for the elimination pathways not yet in use.

The estimated costs for the disposal of CERN radioactive waste are based on the amount and radiotoxicity of both the radioactive waste presently stored in CERN's temporary storage facility and the future radioactive waste that is forecast to be produced by preventive and corrective maintenance or by the upgrade of CERN's facilities or experiments. The estimate of future waste is based on declarations by the different CERN groups concerned, that provide estimates to the best of their knowledge, and a forecast for waste production over the next 20 years. The updated estimates received in 2015, in particular for the forecast of waste produced during the Long shutdown 2 and 3, are the basis of the increase in the provisions at the 31st December 2015 with respect to the previous year.

It must be noted that the data on future waste does not cover radioactive material or waste that could result from the decommissioning of CERN facilities and experiments. The present figures include the cost of the containers that will be eliminated with the waste and the transport of the waste to the final disposal facilities. They do not include cost for tools and staff strength needed for the radiological characterisation of the waste or for the handling and conditioning of the waste at CERN. The portion of the provision relating to the future waste costs is calculated without discounting to arrive at the present value.

The disposal costs for radioactive waste on 31 December 2015 are estimated to be 133.9 MCHF (88.0 MCHF in 2014).

B) Paid leave – long term portion

At 31 December 2015, the total provision for Paid Leave amounts to 123.8 MCHF (121.7 MCHF in 2014). The current portion of the provision appears under the heading Employee Benefits (refer to note 7.16.3), and the long term portion of the provision at 31 December 2015 amounts to 79.8 MCHF (78.3 MCHF in 2014).

C) Damages on accidents and defects

Damages represent the insurance franchise on accidents in progress.

D) Obligations under Special Contributions

France and Hungary opted to make a special contribution to CERN with their portion of the one-off rebate granted by CERN on the member state contributions for 2015. Please refer to 7.6.1 for more details of the rebate. The special contribution from France is for 9.1 MCHF and the special contribution from Hungary is for 0.4 MCHF. Additional revenues corresponding to these special contributions have been recorded in 2015. At the same time, a liability has been recognized to reflect the extent to which the constructive obligations relating to these contributions have not been satisfied. The timing of the related cash outflows are uncertain, therefore this amount is included in the provisions.

Other Items not recognized in the Financial Statements

a) Dismantling

The applicable texts (in particular CERN's founding Convention and the pertinent agreements with Switzerland and France) do not stipulate an obligation for CERN to dismantle its' installations at the end of their operating period.

In the absence of an obligation to dismantle and given that the fate and state of the installations at the end of their operating period is not foreseeable at present, no provisions for dismantling are included in the financial statements.

If CERN were to dismantle installations, such operations would have to be carried out in the applicable legal framework and involve costs which cannot be determined today.

b) Litigations and claims

Where there are ongoing litigations or claims for which the amount and timing of the financial impact is known or can be estimated, and the outcome is likely, an accrual is included in the trade payables. Refer to note 7.16 for accrued amounts. The following are not included in the accrued liabilities.

- The 2014 notes explained that following termination by CERN, on the basis of a breach of contract by the insolvent contractor, of a contract for the construction of

Building 774, CERN had submitted a 2.4 MEUR claim to the Insolvency Administrator in Barcelona, the place of establishment of the contractor. The majority of this amount relates to the cost of completion of the works by the contractor's sub-contractors and various other firms. In the autumn of 2015, it became apparent that the value of the contractor's assets was grossly inadequate in relation to the total amount of the claims. On the advice of CERN's legal counsel in Barcelona, CERN decided to cease to pursue its claim on the contractor.

- As part of the contract for construction works for the CERN Globe parking, it was agreed that the contractor would purchase from CERN the soil that he was to remove to permit the works to proceed. Several months after finalization of the works, the contractor submitted an invoice to CERN that included an amount of 135 kCHF (related to the evacuation of the soil) that CERN disputes. CERN has proposed to settle the matter through the payment of 21 KCHF. As of end-2015, the contractor continued to reject CERN's offer, and in the early part of 2016 they have informed CERN of their intention to take this matter to arbitration. The outcome is not yet clear.
- The claim noted in the 2014 financial statements relating to the discovery by CERN of serious defects in capacitors installed by a contractor is ongoing. In an effort to establish in-depth clarity as to the functioning of these components, CERN continues to take measurements on the existing capacitors. In the meantime, the contractor has extended the warranty on the capacitors;
- The 2014 financial statements reported a variety of claims between CERN and a contractor having supplied CERN with a defective short as well as a long impregnation systems for the development of magnets. Following extensive negotiations, the matter was settled through the performance by the contractor of corrective work on the short systems and an alternative solution was found for the long systems;
- Still ongoing from 2014, CERN is seeking to recover 0.4 MEUR in costs for having the work carried out by another contractor and having had to find alternate means to impregnate two magnet coils in 2014. The contractor contests the claim and is seeking payment from CERN for materials purchased and its engineering time. The parties remain in discussion with a view to reaching a solution to this matter.

7.15. SHORT-TERM DEBT AND BANK OVERDRAFT

As mentioned under Long-term debts, the amounts falling due next year are included under this heading in addition to short-term borrowing from banks.

KCHF	As at 31.12.2015	As at 31.12.2014
BNP FORTIS - to be reimbursed within 1 year	24 003	23 209
FIPOI - to be reimbursed within 1 year	1 106	1 106
SIG - to be reimbursed within 1 year	32 637	
Total	25 108	56 952

CERN has credit lines with various financial establishments. These do not generate any financial cost on top of the interest incurred when used. No credit lines were being used by CERN at the end of 2015.

7.16. PAYABLES

7.16.1. TRADE ACCOUNTS

This sub-heading represents outstanding invoices and accrued Material expenses payable to suppliers. At 31 December 2015, the balance of trade payables is 67.4 MCHF (72.3 MCHF in 2014).

The accrued expenses for 2014 included a settlement of 1.7 MCHF relating to a claim by the contractor of Building 107 construction works, following termination by CERN of the corresponding contract plus 0.8 MCHF in open invoices owing to this contractor. In May 2015, CERN and the contractor concluded a settlement agreement under which CERN paid 2.3 MCHF to the contractor. The difference to the 2014 accruals of 0.2 MCHF is due to a foreign exchange gain since the contract is in EUR.

Furthermore, relating to a supply of defective hoses to CERN and a settlement under which the contractor committed to replace all defective hoses at an estimated cost to the contractor of 3.9 MEUR, with CERN contributing 1 MEUR towards the cost of the replacement work, there existed an accrued amount of 0.5 MCHF in 2014 for the correction work completed during LS1. This amount was paid at the start of 2016 is therefore included in the accruals balance at 31 December 2015. The remainder of the replacement work is to be completed and paid during LHC LS2, so no accrual has yet be entered for the work still to be completed.

The accrued expenses for 2015 include 2 additional settlements.

- One is for 0.5 MEUR in relation to a contract for HVAC, electrical and sanitary works on Building 774. The exact wording of the settlement agreement is still under negotiation at the time of the financial statements, and the payment is expected to take place during 2016.

- A second accrual has been made in the amount of 0.3 MEUR relating to a contract for civil engineering consultancy services in relation to Building 107. This amount is the best estimate at the time of drawing up the financial statements, it being understood that the amount may reduce following a recent discovery by CERN of possible design defects.

7.16.2. TEAMS AND COLLABORATIONS

This represents the advances received from Teams and Collaborations and other Funds. The most important part concerns Collaborations and mainly:

The LHC Experiments

- ATLAS (A Toroidal LHC Apparatus);
- CMS (Compact Muon Solenoid);
- ALICE (A Large Ion Collider Experiment);
- LHCb (LHC beauty);

The balances as at 31 December 2015 are shown in the table below:

MCHF	As at 31.12.2015	As at 31.12.2014
ATLAS	61.0	60.4
CMS	36.0	36.7
ALICE	13.6	10.5
LHCb	15.9	14.4
Other Collaborations	9.9	9.9
Teams & Special Funds	47.2	52.1
Total	183.6	184.0

The status of the LHC experiments is reported regularly to Council, most recently in September 2015 (CERN/SPC/1050 – CERN/FC/5932 – CERN/3197).

7.16.3. EMPLOYEE BENEFITS

7.16.3.1. Employee benefits recognised in the Financial Statements

- A) The amount shown in the Statement of Financial Position under this sub-heading can be broken down as follows:

	kCHF	As at 31.12.2015	As at 31.12.2014
Accruals			
Paid leave		44 008	43 446
Shift work compensation		10 397	14 620
Paid leave for long service		9 199	10 443
Termination allowances		3 723	3 761
Other payables		32	68
Total		67 359	72 338

At 31 December 2015, the total provision for Paid Leave amounts to 123.8 MCHF (121.7 MCHF in 2014). The figure in the table above is the current portion of the provision, expected to be used within 12 months. The remaining long-term portion of Paid Leave appears in Provisions on the Statement of Financial Position, and at 31 December 2015 it amounts to 79.8 MCHF (78.3 MCHF in 2014).

- B) The principal assumptions used for calculating the present value of special leaves for long service, shift work compensation and termination allowances were as follows:

	As at 31.12.2015			As at 31.12.2014		
	Long service	Shift work compensation	Termination allowance	Long service	Shift work compensation	Termination allowance
Discount rate	1.00 % * 10 years	1.00 % * 5 years	1.00 % * 2 years	0.38% 10 years	-0.09% 5 years	-0.26% 2 years
Future salary increase	2.85%	2.85%	2.85%	3.50%	3.50%	3.50%
% of award of indefinite contracts	50.00%	NA	50.00%	50.00%	NA	50.00%

* From 2015, for the accounting estimate of the discount rate on employee benefits, the principle has been adopted that the relevant discount rate should never fall below the best estimate of future inflation over the similar period, consistent with the principle adopted for the post-employment benefits. The relevant Swiss Confederation Bond interest rates are -0.79% for 2 years, -0.53% for 5 years, and -0.04% for 10 years, and therefore the best estimate of future inflation has been used as the discount rate.

7.16.3.2. Other employee benefits not recognised in the Financial Statements

Reinstatement indemnities

As provided for in the Staff Rules and Regulations, reinstatement indemnities may be paid under certain conditions to non-resident staff within 30 months following the termination of their contract. At the reporting date, the corresponding contingent liability towards the members of personnel amounted to 8.3 MCHF (7.9 MCHF in 2014).

7.17. DEFERRED REVENUE

The amount shown in the Statement of Financial Position under this heading can be broken down as follows:

kCHF	Comments	As at 31.12.2015	As at 31.12.2014
2016 Contributions paid in advance - within 1 year	A	30 039	5 022
EU projects	B	18 022	16 179
Other revenues in advance	C	12 106	16 724
Total		60 167	37 925

A) The detail of the 2016 contributions paid in advance is shown in the following table:

kCHF	As at 31.12.2015
Austria	1 327
Belgium	1 657
Bulgaria	1 098
Czech Republic	602
Denmark	1 065
Finland	827
Germany	149
Israel	4 389
Netherlands	2 733
Norway	1 682
Poland	1 647
Slovakia	294
Sweden	1 690
Switzerland	2 324
United Kingdom	8 556
Total 2016 Contributions paid in advance	30 039

In September 2015, the Council approved a Plan of Measures in order to limit the impact on their member states for the effects of the Swiss franc appreciation on 15 January, 2015 following the Swiss National Bank's decision to discontinue the guaranteed minimum exchange rate of 1.20 CHF to 1 EUR.

As a result, CERN has granted a one-off rebate on the member state contributions for 2015 equal to 60 MCHF. For member states who had opted to apply the rebate toward their 2016 contributions, this was accounted for as a deferred revenue.

- B)** Following the agreement with the EU in the context of the European Commission's 7th Framework Programme in 2008, CERN received advances for a large number of projects. These advances are either redistributed to other parties when CERN is project coordinator or retained to cover CERN expenditure. 16.4 MCHF were used in 2015 (20.9 MCHF in 2014) and transferred to revenue.
- C)** The sub-heading "Other revenue in advance" mainly concerns balances of various projects awaiting recognition as revenue according to the stage of completion of contracts.

7.18. OTHER CURRENT LIABILITIES

This heading amounts to 2.2 MCHF as at 31 December 2015 (3.0 MCHF in 2014) and includes the balance of advance payments from various companies, CERN schools and social activities.

7.19. MEMBER STATES' CONTRIBUTIONS

The detail of annual Member States' contributions is shown in the following table:

	kCHF	2015	2014
Austria		23 192	24 409
Belgium		28 966	30 524
Bulgaria		3 036	3 082
Czech Republic		10 517	11 324
Denmark		18 607	19 333
Finland		14 460	15 312
France		158 663	169 206
Germany		214 704	222 938
Greece		15 167	17 993
Hungary		6 542	7 116
Italy		116 028	126 257
Israel		14 072	13 115
Netherlands		47 766	50 586
Norway		29 405	28 006
Poland		28 789	29 271
Portugal		12 010	13 206
Slovakia		5 138	5 461
Spain		81 997	91 094
Sweden		29 538	28 713
Switzerland		40 619	40 082
United Kingdom		149 562	152 609
Total		1 048 775	1 099 637

Note the 2015 Contributions have been reduced by the one-off rebate

The following amounts have also been recognised in the 2015 revenues:

- 8 155 kCHF from Romania as Candidate for Accession (7 891 kCHF in 2014);
- 1 000 kCHF from Serbia as Associate Member State (1 000 kCHF in 2014);
- 3 619 kCHF from Turkey as Associate Member State (0 kCHF in 2014);
- 654 kCHF from Pakistan as Associate Member State (0 kCHF in 2014);
- 0 kCHF from Israel as Special Contribution (12 044 kCHF in 2014);
- 9 077 kCHF from France and 374 kCHF from Hungary as special contribution with their 2015 rebates (refer to note 7.14).

7.20. EU CONTRIBUTIONS

Following the agreement between the EU and CERN in the context of the European Commission's 7th Framework Programmes, an amount of 16.4 MCHF (20.9 MCHF in 2014) was used to cover expenses in 2015. The corresponding EU projects were:

kCHF	2015	2014
MARIE CURIE Actions	8 310	11 245
Cessamag project	2 523	2 689
Tical project	613	419
TORCH project	601	315
EUCARD2 project	556	390
EGI-Inspire project	375	57
LHC Theory project	363	464
Hilumi project	326	325
AIDA2020 project	290	
Laguna LBNO project	206	357
ENVISION project	199	144
Others	2 080	4 461
Total	16 440	20 864

7.21. OTHER REVENUE

The amount shown under this heading can be broken down as follows.

The sub-total “Other in-kind contributions” represents the estimate of advantages granted to the Organization. These in-kind revenues have their counterpart within Material Expenses, with the exception of the revenues in-kind on detectors. These in-kind revenues are recorded for additions ATLAS Collaboration detectors during LS1, and the counterpart therefore appears in the “LHC Programme” category of PPE balances.

	kCHF	2015	2014
Loans and advances with no interest		1 923	1 983
Lands made available without charge*			2 930
Computing : material and training		574	498
Revenues in-kind on detectors		16 949	58 517
Material made available without charge		20	396
Sub-total Other in-kind contributions	19 466	64 324	
Revenue for HIE-ISOLDE, IdeaLab, FAIR, SH.NEUTRINOS		7 925	6 031
Personnel paid on Team accounts		12 349	13 254
Personnel on detachment		1 142	1 259
Knowledge transfer		2 455	1 848
Sales and miscellaneous		13 392	15 342
OpenLab revenues		2 497	2 456
Revenue from the Housing activity		5 523	5 223
Sub-total Others	45 283	45 413	
Total	64 748	109 737	

* Following the change in accounting policy for Property, Plant and Equipment, land is included in the assets of CERN and revalued annually. Therefore there will no longer be in-kind contribution revenues and offsetting expenses recorded as a result of the advantage granted to the Organization of the right to use land with minimal or no charge.

7.22. MATERIAL EXPENSES

Details of materials expenses are shown in the following table:

	kCHF	2015	2014	Variation
Goods, Consumables, Equipment & Supplies		66 786	86 692	- 19 906
Stock variations		1 219	- 609	1 828
Buildings, civil-engineering equipment and supplies		10 227	11 653	- 1 426
Electrotechnics, electronics equipment and supplies		19 120	24 119	- 4 999
IT equipment and supplies		7 939	12 199	- 4 261
Mechanics equipment and supplies		11 237	13 134	- 1 897
Vacuum and particle detection equipment and supplies		4 998	5 984	- 986
Cryogenics and gases for experiments		4 160	6 555	- 2 395
Transport, handling and hoisting equipment and supplies		198	2 371	- 2 173
Miscellaneous supplies		7 689	11 287	- 3 598
Electricity, heating gas and water		64 604	42 227	22 376
Industrial Services		75 694	82 302	- 6 608
Service contracts		45 666	48 853	- 3 187
Repair & maintenance		25 998	29 583	- 3 584
Temporary labour		4 030	3 866	163
Associated Members of Personnel		32 068	32 499	- 430
Other overheads		50 419	49 015	1 404
Consultancy		5 022	5 043	- 21
Contributions to Collaborations		5 174	4 792	382
Equipment hire		- 1 393	2 176	- 3 568
Insurance premiums		5 163	4 950	213
Library		8 077	5 665	2 411
Litigation settlement		589	5 735	- 5 146
Visits and conferences		11 312	2 291	9 021
Duty travel and hospitality expenses		8 526	10 230	- 1 704
Transport		1 481	2 424	- 943
Training costs		3 525	3 841	- 316
Communications		578	902	- 323
Bad debts		1 540	-	1 540
Miscellaneous overheads		825	967	- 142
Total		289 571	292 735	- 3 163

The Materials expenses charged to the budget for 2015 and shown in note 8.2 amounted to 444.3 MCHF (507.0 MCHF in 2014). They can be reconciled with the above as follows:

	MCHF
Materials Budget expenses	444.3
Material expenses transferred to PPE	-154.7
Materials expenses	289.6

7.23. PERSONNEL EXPENSES

The details of personnel expenses are shown in the following table:

	kCHF	2015	2014	Variation
Remuneration		264 834	278 097	- 13 263
Staff members		232 103	239 694	- 7 591
Fellows		32 453	38 126	- 5 673
Apprentices		278	277	2
Social and family benefits		58 414	54 507	3 907
Staff members		55 815	52 086	3 729
Fellows		2 599	2 421	178
Social insurance cover		98 313	93 917	4 395
Pension		76 945	72 898	4 047
Staff members		68 383	66 325	2 058
Fellows		8 562	6 574	1 988
Health Insurance		21 368	21 019	349
Staff members		19 997	18 022	1 975
Fellows		1 176	2 841	- 1 665
Apprentices		194	156	38
Annual variation - paid leave		- 758	6 423	- 7 181
Staff members		- 786	6 226	- 7 012
Fellows		28	197	- 169
Post-employment benefits		183 262	258 956	- 75 694
Contribution to Health Insurance for pensioners		26 997	25 920	1 077
Contribution to Long-Term Care for pensioners		2 801	2 798	3
Changes in provision for the Pension scheme		74 889	154 664	- 79 775
Changes in provision for the Health scheme		78 574	75 573	3 001
Internal taxation		30 047	29 028	1 019
Total		634 111	720 928	- 86 817

The Personnel expenses charged to the budget for 2015 and shown in note 8.3 amounted to 628.9 MCHF (616.7 MCHF in 2014). They can be reconciled with the above as follows:

	MCHF
Personnel Budget expenses	628.9
Personnel expenses transferred to PPE	-131.0
Employer costs - Pension benefits *	74.9
Employer costs - HIS benefits *	78.6
Amortization of staff benefits accruals	-17.3
Personnel expenses	634.1

* refer to note 7.13 d

7.24. FINANCIAL REVENUE AND EXPENSES

The details of financial revenue and expenses are shown in the following table:

kCHF	2015	2014
Financial revenue		
Interest	1 308	2 210
Discounts	94	60
Exchange gain	4 967	
Total	6 369	2 270
Financial expenses		
Interest on FORTIS loan	10 666	11 434
Loans with no interest	1 923	1 983
Interest on SIG debt	2 500	1 331
Financial expenses on set up of investments	35	299
Exchange loss		723
Other financial expenses	0	9
Total	15 124	15 778

The Interest and Financial costs charged to the budget for 2015 and shown in note 8.4 amounted to 15.1 MCHF (15.8 MCHF in 2014).

7.25. MANAGEMENT OF FINANCIAL RISKS

Risk management policies depend on the type of financial instruments concerned. Risk management for CERN operating financial assets and financial liabilities is distinct from that for the CHIS portfolio. The following description of the policies and processes for managing and measuring the financial risks reflects the split of management responsibility for these two groups of assets and liabilities. A more general description of the CERN accounting policies on financial instruments, including a definition of financial instruments, appears in note 7.1.

Financial Instruments held by CERN

As disclosed in note 7.26, CERN holds a variety of financial instruments. The main risks arising from CERN's financial instruments are liquidity risk, interest rate risk, currency risk and credit risk. For CERN financial assets used for investment purposes, the senior management approves the investment instruments, policies and strategy for managing these assets and their associated risks.

Financial Instruments held by CHIS

Details of the CHIS financial instruments also appear in note 7.26. The main risks arising from the CHIS financial instruments are market risk, interest rate risk, and credit risk. Two banks have been appointed to manage the portfolio of CHIS. They actively manage the assets

following a pre-defined strategic allocation with maximum assets at risk to preserve the value of CHIS assets.

7.25.1. LIQUIDITY RISK

Liquidity risk is the risk of not being able to meet obligations that are settled by delivering cash (or another financial asset) as they fall due.

CERN's activities are mainly financed by the annual contributions of the Member States, with the corresponding budget approved by member states and upon which the amounts of the contributions are based. Therefore liquidity risk is increased if the cash inflows and cash outflows are mismatched, namely if member state contributions are not received on a timely basis.

The Treasury section at CERN addresses liquidity risk by monitoring bank balances and estimating expected cash outflows based on open commitments and due dates on financial liabilities. They also monitor member state contributions, the most significant source of cash inflows to CERN. The Resource Planning and Controls section monitors commitments and expenditures in order to ensure the budget is correctly executed and is not exceeded.

In the event that the contributions received are not sufficient to cover for CERN cash flow needs, CERN may, if necessary, take recourse to short-term loans with financial institutions to cover its exposure to liquidity risks. In the event of a cash surplus not needed to cover operational short-term expenses, CERN may invest the amounts concerned with the first objective of preserving capital, and the secondary objectives to maximise returns and ensure liquidity needs are met.

For a maturity analysis of the long term debts held by CERN, please refer to note 7.10.

7.25.2. MARKET RISK

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: currency risk, interest rate risk, and other price risk.

For CERN financial instruments, the Treasurer may have recourse to financial products to cover financial market risks such as variations in interest and exchange rates. The Organization uses hedging tools to manage its exposure to currency and interest rate risks incurred in the normal course of business. The goal of financial risk management is to minimise the impact of the unpredictable nature of financial market trends on CERN's financial position.

The financial assets held by the CHIS are exposed to market price risk. It is the responsibility of the two banks which manage the portfolio of CHIS to manage this risk through diversification and any other means they deem prudent in line with the mandate they have.

7.25.3. CREDIT RISK

Credit risk is the risk that one party to a financial instrument will cause a financial loss of the other party by failing to discharge an obligation.

For the CERN financial instruments, credit risk arises principally from the following financial instruments: all receivables, other financial assets and cash and cash equivalents. The carrying amount of these financial assets represents the maximum credit exposure. The maximum exposure to credit risk as at 31 December 2015 was therefore 293 MCHF (290 MCHF in 2014).

Refer to 7.2.3 regarding banker's guarantees provided by CERN.

No other collateral is held as security for CERN.

Credit quality is the assessed risk of default attached to the counterparties with which CERN invests, and to which CERN extends credit. CERN invests with only top-rated financial institutions for holding cash and making investments in order to mitigate this risk.

CERN takes the following steps to protect itself from the risk of counterparty default:

- having recourse to top-rated financial institutions and setting a ceiling on the level of operations authorised with each counterparty;
- applying rules and procedures defining the conditions for opening and managing third-party accounts and limiting the amounts managed and the transactions authorised;

For the CHIS financial instruments, the financial assets exposed to credit risk are cash and investments held at banks. The carrying amount of these financial assets represents the maximum credit exposure. The maximum exposure to credit risk as at 31 December 2015 was therefore 205 MCHF (190 MCHF in 2014).

No collateral is held as security in the form of margin calls at 31 December 2015 for CHIS (906 kCHF for 2014).

7.25.4. INTEREST RISK

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in the market interest rates.

Exposure to interest risk at CERN is limited to interest bearing financial instruments which they hold. This includes cash, other financial asset, and long term debts. CERN uses forward exchange contracts and options to hedge its interest risk. At 31 December 2015, CERN had no interest swaps in progress.

The impact of a +/- 10% change in the average interest rates received/paid on the closing balances would result in a net loss/gain of 1.1 MCHF and a corresponding increase/decrease in the net asset value. Note this figure is calculated including the interest-bearing long term debts, however given these have fixed interest rates, the associated interest risk is low.

The CHIS fund is exposed to interest risk on the cash and bonds which they hold. It is the responsibility of the two banks which manage the portfolio of CHIS to manage this risk.

The impact of a +/- 10% change in the average interest rates received/paid on the closing balances would result in a net gain/loss of 0.1 MCHF and a corresponding increase/decrease in the net asset value.

7.25.5. CURRENCY RISK

Currency risk is the risk that the fair value or future cashflows of a financial instrument will fluctuate because of changes in exchange rates.

CERN is exposed to currency risk through its normal foreign-currency transactions, and the translation of financial instruments denominated in currencies other than the Swiss franc. Exposure to the currency risk on transactions is due to the fact that the member state contributions are in CHF while a percentage of CERN expenditure is committed in EUR, and to a lesser extent other currencies.

At 31 December 2015, the principal financial instruments denominated in foreign currencies held by CERN and translated into CHF were cash, receivables, other receivables and payables. The impact of a +/- 10% change in the exchange rates of the 4 significant foreign currencies used at CERN on the closing balances would result in a gain/loss of 5.7 MCHF and a corresponding increase/decrease in the net asset value.

CERN uses natural hedges where possible, and if not available, forward exchange contracts and options to hedge its foreign exchange risk. At 31 December 2015, CERN had no foreign exchange hedging instruments in progress.

The CHIS fund is exposed to currency risk through the translation of financial assets denominated in a foreign-currency. As 31 December 2015, the financial assets denominated

in foreign currencies were cash, bonds and shares. The impact of a +/- 10% change in the exchange rates on the closing balances would result in a gain/loss of 4.8 MCHF and a corresponding increase/decrease in the asset value.

7.26. FINANCIAL INSTRUMENTS

7.26.1. FINANCIAL INSTRUMENTS BY CATEGORY

The following table is a comparison by category of the carrying amounts and fair values of all of CERN's financial instruments carried in the financial statements.

kCHF	Carrying Value		Fair Value	
	As at 31.12.2015	As at 31.12.2014	As at 31.12.2015	As at 31.12.2014
CERN Financial Instruments				
Financial Assets Fair Value through Profit and Loss				
Bonds		-		-
Shares		-		-
Funds		-		-
Derivatives used for trading		-		-
Total	-	-	-	-
Cash and cash equivalents	176 200	117 723	176 200	117 723
Other financial assets	-	50 000	-	50 000
Financial assets measured at amortized cost				-
Receivables	99 316	114 861	99 316	114 861
Other receivables	17 189	7 641	17 189	7 641
Total CERN Financial Assets	292 706	290 225	292 706	290 225
Short-term debt and bank overdraft	25 108	56 952	25 108	56 952
Financial liabilities measured at amortized cost				-
Payables	250 966	268 028	250 966	268 028
Long-term debts	307 868	332 976	278 623	302 552
Member States	2 277	2 277	2 277	2 277
Total CERN Financial Liabilities	586 219	660 233	556 974	629 809

CHIS Financial Instruments				
Financial Assets Fair Value through Profit and Loss				
Bonds	72 276	85 152	72 276	85 152
Shares	68 086	39 477	68 086	39 477
Funds	39 628	45 529	39 628	45 529
Derivatives used for trading	19 482	1 885	19 482	1 885
Total	199 472	172 043	199 472	172 043
Cash and cash equivalents	4 760	15 543	4 760	15 543
Other	795	2 673	795	2 673
Total CHIS Financial Assets	205 027	190 259	205 027	190 259
Financial liabilities measured at amortized cost				
Long-term liabilities - CHIS fund	177 946	163 822	160 002	144 919
Short-term liabilities - CHIS fund	27 081	26 437	27 081	26 437
Total CHIS Financial Liabilities	205 027	190 259	187 083	171 356

The fair value of the financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced sale or liquidation.

At 31 December 2015, no financial instruments at fair value through surplus or deficit were held directly by CERN. The fair values of the CHIS fund financial assets at fair value through surplus or deficit are measured based on quoted prices at the balance sheet date or at the last available price available to market participants. The carrying amounts and the fair value amounts do not differ.

For cash and cash equivalents, receivables, other financial assets, as well as payables, short-term debt and bank overdrafts, the carrying amounts are not considered to differ significantly from the fair value amounts largely due to the expected short-term maturities of these instruments.

The long term loans carried at amortised cost from Fortis, SIG and FIPOI are not traded on an active market. Their fair value at the balance sheet date is calculated as the present value of the future cash flows discounted using the prevailing government interest rates for the approximate remaining period of each loan.

7.26.2. FAIR VALUE LEVELS

For valuation purposes, the financial assets at fair value through the surplus and deficit are classified under the following fair value levels:

- level 1 – quoted prices (unadjusted) in active markets for identical assets or liabilities;
- level 2 – inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly;
- level 3 – inputs that are not based on observable market data.

At 31 December 2015, CERN did not hold any financial assets classified as fair value through surplus and deficit.

Based on the above fair value hierarchy, at 31 December 2015 all financial assets classified as fair value through surplus and deficit held by CHIS were classified as Level 1.

7.26.3. GAINS AND LOSSES ON FINANCIAL INSTRUMENTS

The table below details gains and losses on financial instruments recorded in the year.

kCHF	For the year ended 31.12.2015	For the year ended 31.12.2014
CERN Financial Instruments		
Financial Assets Fair Value through Profit and Loss		
Interest income	1 308	2 210
Interest expense on long term debt	- 15 089	- 14 748
Net exchange gains/losses*	4 967	- 723
Fees and other costs	- 35	- 299
Sundry	94	51
Total	- 8 756	- 13 509

* Exchange gains/losses related to financial assets at fair value through surplus or deficit are netted against net gains (losses) on these assets in the table above

kCHF	For the year ended 31.12.2015	For the year ended 31.12.2014
CHIS Financial Instruments*		
Financial Assets Fair Value through Profit and Loss		
Net gains (losses) on assets at fair value through surplus or deficit	- 2 436	10 232
Interest income		3
Interest expense	- 12	
Fees and other costs	- 1 382	- 551
Sundry		
Total	- 3 830	9 685

* do not appear in Statement of financial performance

7.27. RECAPITALISATION OF THE PENSION FUND

Following the Five-Yearly Review 2010 and the approval by the Council in December 2010², CERN contributed in 2015 to the recapitalisation of the Pension Fund in an amount of 60 MCHF (60 MCHF in 2014).

² CERN/FC/5498 – CERN/2947

7.28. RELATED PARTY DISCLOSURES

Requirements of the IPSAS 20 Standard

The standard requires the following disclosures:

The total amount of all other remuneration and compensation provided to key management personnel, and close members of the family of key management personnel, by the reporting entity during the reporting period, showing separately the aggregate amounts provided to:

- (i) Key management personnel; and
- (ii) Close members of the family of key management personnel

The standard defines close members of the family of key management personnel as close relatives of the individual or members of the individual's immediate family who can be expected to influence, or be influenced by, that individual in their dealings with the entity.

Key Management Personnel

The Organization is governed by the CERN Council composed of delegates of all Member States. The latter do not receive remuneration from the Organization. The CERN Council is the highest authority of the Organization and, as such, appoints the Director-General to manage the CERN Laboratory.

The Director-General is assisted by a Directorate and Key Advisors, and runs the Laboratory through a structure of Departments, each managed by a Head of Department. The Director-General, the Directorate, the Key Advisors and Heads of Departments are remunerated by the Organization and represent the key management personnel of CERN.

The aggregate remuneration related to key management personnel and their close family members includes salaries, allowances, employer social contribution, benefits and other entitlements paid directly or indirectly in accordance with the Staff Rules & Regulations.

	31.12.2015		31.12.2014	
	Number of persons	Total (kCHF)	Number of persons	Total (kCHF)
Directorate (Director-General and Directors)	4	1 573	4	1 738
Head of Departments	8	2 983	8	3 061
Key Advisors	4	886	3	1 048
Total Key management personnel	16	5 442	15	5 847

In addition, the Director-General receives the benefit of use of a car and a driver. These represented for 2015 an amount of 205 kCHF (220 kCHF in 2014).

The key management personnel are ordinary participants in the CERN Pension Fund and CERN Health Insurance Scheme. The total post-employment benefits represent an amount of 1 626 kCHF for 2015 (1 963 kCHF in 2014).

Concerning close family members of key management personnel (includes spouses and children), the aggregate remuneration amounted to 565 kCHF (571 kCHF in 2014) and the post-employment benefits represented an amount 240 kCHF (287 kCHF in 2014).

Other Related Parties

Parties are considered to be related if one party has the ability to control the other party, or exercise significant influence over the other party in making financial and operating decisions, or if the related party entity and another entity are subject to common control.

CERN contributes to a significant portion of the CERN Pension Fund's financing. While the CERN Pension Fund is an autonomous operating entity, for the purpose of IPSAS 20 disclosure requirements, it is considered to be a related party. CERN provided some administrative support and office accommodations to the Pension Fund free of charge in 2015.

The *Foundation for the Globe of Science & Innovation* and the *Foundation CERN & Society* can also be considered as related parties given that they share some key management personnel with CERN and CERN has significant influence on financial and operating decisions. During 2015, CERN provided personnel, administrative support and office accommodations to these two Foundations free of charge.

8. NOTES TO THE BUDGET ACTUAL AMOUNTS

As required by IPSAS 24 – Presentation of Budget Information in Financial Statements, section 8 of the notes makes a comparison of budget amounts and the actual amounts arising from execution of the budget. In addition, explanations of the reasons for material differences between the budget and actual amounts are provided.

The Final 2015 Budget³ for expenses of 1 266 MCHF at 2015 prices was endorsed by the Finance Committee in December 2014. 2015 Probable Revenues and Expenses were presented to the Finance Committee in December 2015 in the framework of the Final 2016 Budget⁴.

With respect to the annual balance of -128.7 MCHF anticipated in the Final 2015 Budget, the 2015 out-turn shows -33.0 MCHF, resulting in a cumulative budget deficit of -118.1 MCHF compared to -85.1 MCHF at the end of 2014.

This positive improvement of the budget position to expected amounts to 95.7 MCHF. Around 58 MCHF of the differences in the expenses were already anticipated and explained as outcome of the probable revenues and expenses exercise for 2015 and presented as part of the Final 2016 Budget document.

The main differences are as follows:

- Due to the focus on the restart of the machine in the first months of 2015, less staff strength was available for HL-LHC, LIU; consolidation, and diversity activities, resulting in delays in engineering and consequently order placing;
- The CHF-EUR appreciation contributed to the decrease of expenses of around 25 MCHF, including energy;
- A cost and schedule review of both LIU and HL-LHC projects resulted in the revision of schedule and the definition of the cost-to-completion for both projects;
- Re-profiling for building projects, like 107, taking into account contract adjudications and deliveries;
- Additional delays on construction and new schedule for non-LHC projects such as HIE-ISOLDE, ELENA, AWAKE and FAIR linked to the new profile of the external revenues;
- Better definition of the Neutrino project with the construction contracts being placed at the end of 2015.

³ CERN/FC/5873 – CERN/3150

⁴ CERN/FC/5955 – CERN/3212

8.1. SUMMARY OF REVENUE AND EXPENSES BY ACTIVITY

The table below shows a comparison between the budget and the actual amounts:

Reference to Annual Progress Report 2015 CERN/FC/5986/RA	(in MCHF, rounded off)	Final 2015 Budget	2015 Out-Turn	Variation	
		CERN/FC/5873 (2015 prices)	CERN/FC/5986/RA (2015 prices)	MCHF	%
		(a)	(b)	(c)=(b)-(a)	(c)/(a)
REVENUES		1,221.6	1,172.2	-49.4	-4.0%
Page 14, Figure 2 "Total Revenues"	Member States' contributions	1,108.8	1,048.8	-60.0	-5.4%
	Additional contribution from Romania as a Candidate for Accession	8.2	8.2	0.0	0.0%
	Special contribution from Israel	0.4		-0.4	-100.0%
	Additional contribution from Serbia as an Associate Member State	1.0	1.0		
	Additional contribution from Turkey as an Associate Member State		3.6	3.6	
	Additional contribution from Pakistan as an Associate Member State		0.7	0.7	
	Contributions anticipated from new Associate Member States	5.0		-5.0	-100.0%
	EU contributions	17.8	16.4	-1.4	-7.6%
	Additional contributions	17.3	18.0	0.7	3.8%
	Personnel paid on team accounts	9.9	12.3	2.5	25.2%
	Personnel on detachment	0.4	1.1	0.8	196.5%
	Internal taxation	28.4	30.0	1.6	5.7%
	Knowledge transfer	1.2	2.5	1.2	97.2%
Other revenues		23.3	29.6	6.3	27.2%
Fact sheet (MTP 2015)		EXPENSES	1,266.0	1,088.2	-177.7
1, 2, 3, 4, 5, 6, 7, 8 9, 10, 11, 12 13 14, 15, 16, 17, 18, 19 20 21 21 21 21 21	Running of scientific programmes and support	1,015.9	899.1	-116.8	-11.5%
	Scientific programmes	495.8	415.4	-80.4	-16.2%
	<i>LHC (machine, detectors, computing, including spares and consolidation)</i>	297.8	241.4	-56.4	-18.9%
	<i>Non-LHC physics and scientific support</i>	56.1	53.4	-2.7	-4.9%
	<i>Accelerators and areas (including consolidation)</i>	141.9	120.6	-21.3	-15.0%
	Infrastructure and services	310.7	283.8	-26.8	-8.6%
	<i>General infrastructure and services (including administration, outreach)</i>	268.8	258.5	-10.4	-3.9%
	<i>Infrastructure consolidation, buildings and renovation</i>	41.8	25.4	-16.5	-39.3%
	Centralised expenses	209.3	199.9	-9.5	-4.5%
	<i>Centralised personnel expenses</i>	35.4	36.4	0.9	2.6%
	<i>Internal taxation</i>	28.4	30.0	1.6	5.7%
	<i>Personnel int. mobility, on detachment, not available, paid on team accounts</i>	10.5	18.3	7.8	73.9%
	<i>Budget amortisation of staff benefits accruals</i>	17.3	17.3	0.0	0.0%
22 23 24 25 26, 27 28 29 30 31 32, 33, 34, 35, 36	Projects and studies	250.1	189.1	-61.0	-24.4%
	LHC upgrades	135.5	100.2	-35.3	-26.0%
	<i>LINAC4</i>	13.1	9.2	-3.9	-29.8%
	<i>LHC injectors upgrade</i>	44.1	26.0	-18.0	-40.9%
	<i>HL-LHC construction</i>	54.3	43.9	-10.4	-19.2%
	<i>LHC detectors upgrade (Phase 1) and consolidation</i>	15.7	14.8	-0.8	-5.2%
	<i>HL-LHC detectors, including R&D (Phase 2)</i>	8.3	6.3	-2.1	-25.0%
	Energy frontier	38.4	28.6	-9.8	-25.5%
	<i>Linear collider studies (CLIC, ILC, detector R&D)</i>	31.4	22.9	-8.5	-27.0%
	<i>Future Circular Collider study</i>	7.1	5.7	-1.3	-18.6%
	Diversity activities	76.2	60.3	-15.9	-20.9%
	<i>ELENA</i>	12.5	12.2	-0.4	-2.9%
	<i>HIE-ISOLDE</i>	12.7	11.6	-1.1	-8.7%
	<i>CERN neutrino platform</i>	15.2	8.8	-6.4	-42.1%
<i>R&D (incl. EU support) for accelerators, detectors, medical applications</i>		35.8	27.7	-8.1	-22.6%
BALANCE					
Page 16, Figure 3 "Total Expenses by Activity and Balance"	Annual balance	-44.3	84.0	128.3	
	Capital repayment allocated to the budget (Fortis, FIPOI 1, 2 and 3, SIG)	-24.3	-57.0	-32.6	
	Recapitalisation pension fund	-60.0	-60.0		
	Annual balance allocated to budget deficit	-128.7	-33.0	95.7	
	-Cumulative Balance-	-85.1	-213.8	-118.1	95.7

8.2. MATERIAL EXPENSES

In addition to the above table which details expenses by Activity, the following table shows the breakdown of Materials budget expenses by nature.

MCHF	Comments	2015		
		Budget	Expenses	Difference
Goods, Consumables and Supplies	A	335.8	171.8	- 164.0
Electricity, heating gas and water	B	94.0	64.6	- 29.4
Industrial services		111.2	110.8	- 0.4
Associated Members of Personnel	C	39.5	40.4	0.9
Other overheads		55.0	56.6	1.6
	Total	635.5	444.3	- 191.3

Comments

A) The difference is explained by:

- The re-scheduling of multi-annual projects and consolidation and delays in procurement:
 - for projects in the “Infrastructure and Services” programme the difference amounts to -25.0 MCHF and mainly concerns:
 - -7.2 MCHF due to a reprofiling of Building 311 following a review of the cost and schedule;
 - -5.6 MCHF due to EUR-CHF exchange rate savings and delays in procurement for Infrastructure Consolidation;
 - -2.9 MCHF due to a late start of Globe renovation project;
 - -2.8 MCHF due to the cost revision and reprofiling of the Emergency project;
 - -2.7 MCHF due to the slow ramp up of the Radioactive Waste Treatment Centre;
 - -2.1 MCHF for Computing Network Consolidation;
 - -1.7 MCHF due to the postponement of the Place des Particules project;
 - in the “Projects & Studies” programme, the re-profiling of projects amounts to -55.1 MCHF and is related mainly to:

- -26.1 MCHF for LHC upgrades as a result of the cost and schedule review for LHC Injectors Upgrade (-18.0 MCHF) and HL-LHC Construction (-8.1 MCHF);
 - -8.3 MCHF for CLIC due to the adjustment of the CLIC development programme until 2019 during the MTP 2015;
 - -6.4 MCHF due to a delayed start of construction for CERN Neutrino Platform (late start of the extension of the EHN1);
 - -6.0 MCHF due to delays in FAIR project linked to the new profile of the external revenues;
 - -3.8 MCHF for LINAC4 linked to the focus on the restart of the machine in the first months of 2015 and in order to solve technical issues related to the construction of the DTL;
 - -2.2 MCHF for LHC Detectors Upgrade due to delays in procurement and rescheduling of some activities;
 - for projects that are part of the “LHC Programme” and “Other Programmes”, the re-profiling amounts to -46.0 MCHF and mainly concerns:
 - -32.5 MCHF for LHC Consolidation, Injectors and Spares (-29.0 MCHF), Detectors Consolidation (-1.1 MCHF), LHC Computing (-2.5 MCHF);
 - -13.6 MCHF for low and medium accelerators including consolidation;
 - the late delivery of some items under the operations headings.
- B)** The difference results from the late start of the machine after the shutdown and the impact of the EUR-CHF exchange rate, as the electricity is mainly purchased in EUR.
- C)** The increase is mainly linked to the need for the additional staff strength working on the restart of the machine in the first months of 2015.

Further detailed explanations regarding the differences between actual Materials expenses and Budget are given in the Annual Progress Report for 2015 (see CERN/FC/5986/RA – CERN/3228/RA).

8.3. PERSONNEL EXPENSES

8.3.1. EXPENSES BY NATURE

For 2015, 616.7 MCHF were initially allocated to the Personnel Budget. The final expenses charged to the Personnel budget amounted to 628.9 MCHF.

The following tables show the breakdown of Personnel expenses.

MCHF	Comments	As at 31.12.2015		
		Budget	Expenses	Difference
Staff Members	D	468.8	469.5	0.7
Fellows and Apprentices	E	56.8	63.3	6.5
Centralised Personnel Budget (CPB)	F	35.4	36.4	1.0
Internal taxation		28.5	30.0	1.5
Amortization of staff benefits accruals		17.3	17.3	-
		81.2	83.7	2.5
Personnel externally funded	G	9.9	12.4	2.5
	Total	616.7	628.9	12.2

Comments

- D)** With respect to the budget, then overall expenses on staff members were 0.3% higher than budgeted, which is explained by the corresponding increase in FTE. Additionally, net allowances are higher than anticipated (+0.8 MCHF) mainly due to shift work allowances, overtime, education and termination indemnities. On the other hand, the variation of paid leave is negative (-0.8 MCHF). There is a variation of +0.8 MCHF for social contributions that combines lower contributions to the pension fund (- 1.4MCHF), i.e. lower contributions to the pension scheme for new Staff members, with higher contributions to the health insurance (+1.2 MCHF) due to the annual percentage increase decided by the Council in the last Five-Yearly review, combined with the increase in number of FTEs.
- E)** This is mainly due to transfers from materials for the GET fellowships and the Technical Trainee Programme.
- F)** The increase is mainly due to an increase of termination allowances (+1.5 MCHF) correlated to the higher number of LD contracts that left the Organization, higher contribution to the Health Insurance for pensioners (+0.3 MCHF) and internal taxation (+1.6 MCHF) partially offset by a variation on the provision for personnel on shiftwork in line with Administrative Circular 22A (-0.9 MCHF).
- G)** The increase is mainly due to an increase in the number of externally-funded personnel, with the corresponding revenues recorded.

8.3.2. DISTRIBUTION OF FTE BY ACTIVITY

8.3.2.1. Staff

The total CERN Staff Member strength in 2015 was 2488.6 FTEs (compared to 2480.5 in Final 2015 budget and 2477.1 in 2014).

Activity	FTE ¹⁾ CERN Budget	FTE Personnel not available	FTE Externally funded
LHC Programme (incl. projects)	686.0		23.9
Other programmes	528.5		4.0
Infrastructure and services	774.4	24.6	9.9
Other expenses ²⁾			19.4
Projects	415.9	24.6	2.0
	2 404.8	24.6	59.2
Total	2 488.6		

¹⁾ Including staff financed by EU, TT and OpenLab funds.

²⁾ Pension Fund

8.3.2.2. Fellows and Apprentices

For Fellows and Apprentices, the total strength in 2015 was 654.3 FTEs (compared to 619.2 in 2014). The increase in Fellows stems from the higher importance of the GET fellowship programme (i.e. funding fellowships with a transfer from materials) and TTE programme (Technical Training Experience).

Activity	FTE CERN Budget		FTE Externally funded	
	Fellows	Apprentices	Fellows	Apprentices
LHC Programme (incl. projects)	207.2		16.3	
Other programmes	118.6		2.9	
Infrastructure and services	115.4	21.7	6.1	
Other expenses ¹⁾			0.1	
Projects	162.1		3.9	
	603.3	21.7	29.3	
Sub-Total	625.0		29.3	
Total	654.3			

¹⁾ Pension Fund

Further detailed explanations regarding the differences between actual Personnel expenses and Budget are given in the Annual Progress Report for 2015 (see CERN/FC/5986 – CERN/3228).

8.4. INTEREST AND FINANCIAL COSTS

MCHF	As at 31.12.2015		
	Budget	Expenses	Difference
BNP FORTIS Bank	10.7	10.7	-
In-kind (FIPOI interests 0%)	2.0	1.9	- 0.1
SIG Debt	-	2.5	2.5
Financial expenses	1.0	0.0	- 0.9
Total	13.7	15.1	1.4

8.5. CAPITAL REPAYMENTS

In line with International Public Sector Accounting Standards (IPSAS), the capital repayment of long-term loans is not shown as budget expenditure but deducted from the liabilities in the Statement of Financial Position. However, in order to reflect cash requirements of the Organization, it is still allocated to the budget balance.

MCHF	As at 31.12.2015		
	Budget	Repayment	Difference
FORTIS loan	23.2	23.2	-
FIPOI loans	1.1	1.1	-
SIG Debt		32.6	32.6
Total	24.3	57.0	32.6

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