



Financial Statements for 2018

CERN/FC/6325 - CERN/3424

Dr Martin Steinacher
Council - 21 June 2019



External Auditor's Findings

- Unqualified audit opinion received from the auditors
- Emphasis of matter paragraph: draws attention to the post employment benefit obligations and the discount rate used
- Key audit matters are detailed in their report
- Includes the assessment that APR is consistent with the financial statements

Highlights from the Financial Statements

- An increase in the total annual contributions by 6.0 MCHF (indexation and AMS), 100% of contributions due received
- Higher spending and future commitments reflecting preparations for LS2 and advances in the LHC upgrade
- Adoption of IPSAS 39 (Employee Benefits) resulted in updated disclosures and restated 2017 figures
- Consolidation of the CERN & Society Foundation
- A negative net asset balance of -164.6 MCHF in the financial position, compared to 137.5 MCHF reported in 2017

Statement of Financial Performance (Summary)

	kCHF	2018	2017*
REVENUE			
Member States' contributions		1 122 924	1 119 900
Associate Member States (incl pre-stage to Membership) contributions		25 314	22 279
EU contributions		16 053	15 893
Financial revenue		762	11 796
Internal taxation		34 584	33 418
Other revenue		73 386	93 442
		1 273 022	1 296 730
EXPENSES			
MATERIALS			
Goods, consumables and supplies		92 728	87 469
Electricity, heating gas and water		65 316	58 259
Industrial services		71 020	87 155
Associated members of personnel		35 192	36 834
Other overheads		58 142	44 922
		322 399	314 638
PERSONNEL			
Remuneration		296 756	294 656
Social and family benefits		58 397	58 115
Social insurance cover		103 847	102 052
Annual variation - paid leave		1 195	- 2 652
Post-employment benefits		170 190	155 323
Internal taxation		34 584	33 418
		664 969	640 912
FINANCIAL EXPENSES			
		9 961	10 869
DEPRECIATION AND AMORTISATION EXPENSES			
		458 936	431 256
CHANGE IN PROVISION FOR RADIOACTIVE WASTE			
		- 9 493	8 827
WRITE-OFF OF NON-CURRENT ASSETS			
		28 084	51 804
RECAPITALISATION OF THE PENSION FUND			
		60 000	60 000
		1 534 856	1 518 307
NET SURPLUS/DEFICIT (-) FOR THE PERIOD		- 261 834	- 221 577

Material Expenses recorded directly to PPE:
2018 - 288.1 MCHF
2017 - 235.4 MCHF
2016 - 212.9 MCHF

Personnel Expenses recorded directly to PPE:
2018 - 150.5 MCHF
2017 - 139.2 MCHF
2016 - 122.0 MCHF

Property, Plant and Equipment (PPE): tangible items held for production and administrative purposes

Accounting Reconciliation (of Budget Results to Accounting Result)

	MCHF
BUDGET SURPLUS/DEFICIT (-) FOR THE PERIOD (A)	- 41.3
Property, plant and equipment (PPE) reconciliation (B)	- 47.2
Revenues In-Kind on detectors and HL-LHC	1.2
Expenses capitalised to PPE and intangible assets	438.6
Depreciation and amortisation expenses	- 458.9
Write-off of PPE and intangible assets	- 28.1
Items not included in the budget surplus/deficit (C)	- 173.2
Consolidation of CERN & Society Foundation	0.2
Variation of provision for post-employment benefits	- 140.2
Recapitalisation of Pension Fund	- 60.0
Variation of provision for elimination of radioactive waste	9.5
Amortisation of personnel benefit accruals*	17.3
TOTAL ACCOUNTING RECONCILIATION (D) = (B)+(C)	- 220.4
NET ACCOUNTING SURPLUS/DEFICIT (-) FOR THE PERIOD = (A)+(D)	- 261.8

Investments are lower than consumption of assets

Statement of Financial Position (Summary)

	kCHF	As at 31.12.2018	As at 31.12.2017
ASSETS			
Property, Plant and Equipment		8 080 388	8 139 199
Intangible Assets		151 783	140 498
CHIS Fund financial assets		250 156	245 632
Inventories		19 178	16 336
Receivables and Prepayments		91 147	78 491
Other financial assets		-	60 000
Cash and cash equivalents		103 554	143 589
Total ASSETS		8 696 206	8 823 745
LIABILITIES			
Post-employment benefits		7 786 481	7 605 989
Long-term debts		227 506	255 161
Liabilities - CHIS Fund		250 156	245 632
Provisions - Others		155 645	163 230
Short-term debt		27 655	26 778
Payables		360 479	352 519
Deferred revenue & other liabilities		52 920	36 980
Total LIABILITIES		8 860 841	8 686 288
NET ASSETS		- 164 635	137 457

Post Employment Benefit Net Obligations

	kCHF	As at 31.12.2018	As at 31.12.2017
Pension benefits			
Present value future benefits obligation		9 125 029	9 321 323
Fair value of plan assets *		-3 808 115	-3 869 307
Net pension benefits liabilities		5 316 914	5 452 016
CHIS benefits			
Present value future benefits obligation		2 661 110	2 338 770
Fair value of plan assets		- 191 543	- 184 797
Net CHIS benefits liabilities		2 469 567	2 153 973
Total net post-employment benefits liabilities		7 786 481	7 605 989

Change in mortality table, revised spouse age gap

Change in mortality table, termination rates

Revised inflation assumptions affects discount rate

CHIS: CERN Health Insurance Scheme

Audit Recommendations

5 recommendations highlighted to Council in 2018:

1. Performance measurement and APR presentation
2. Enterprise risk management
3. Discount rate for post-employment benefits (see next slide)
4. Reinstallation indemnities
5. Budget regulations on additional revenues

There remains open the encouragement on ICS (Internal Control System) in progress from the Polish auditors.

Discount rate impact

- A spot rate is used normally as implementation of the ISPAS standard.
- This spot rate can create ENORMOUS volatility (based on some 0.4% a change of 0.1% is about 25% relative)
 - Previous auditors and MS expressed a concern and asked the Management for an alternative
 - Current method: Use the higher of spot rate (30 years CH government bonds or inflation expectation as measure of time value of money)
- Page 58 of financial statements shows that a variation of +/- 0.5% of the discount rate can impact the defined benefit obligation (CHIS and PF) by some 1'350 MCHF.
- We will look into adapting the discount rate but it is likely that the outcome will result in higher volatility from year to year and in absolute terms a higher value of the post-employment benefits.
- The net obligation resulting from the discount rate and the IPSAS compliant view is not representing the health of the social security schemes : It is answering to the question of the net present value based on a risk free asset placement. The “funding” view is obtained from the actuarial studies.

We wish to thank NAOF (the National Audit Office of Finland) for their report and recommendations, and the constructive collaboration during this first year of their engagement!



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Receivables – Member States

kCHF	as at 31.12.2018			as at 31.12.2017		
	Less than 12 months	More than 12 months	Total	Less than 12 months	More than 12 months	Total
Contributions - Greece	2 268	31 117	33 385	2 182	31 500	33 682
Contributions - Slovak Republic				208		208
Receivables from Member States	2 268	31 117	33 385	2 390	31 500	33 890
TOTAL	2 268	31 117	33 385	2 390	31 500	33 890

Evolution Greek Receivable:

For year	2018	2017	2016
2014	-	1 885	4 147
2015	14 870	15 167	15 167
2016	14 612	14 612	14 612
2017	2 018	2 018	-
2018	1 885		
	33,385	33,682	33,926

2017 Restatement

kCHF	31.12.2017 previously reported	Impact of restatements			31.12.2017 restated
		Changes in presentation	Consolidation	IPSAS 39	
STATEMENT OF FINANCIAL POSITION					
Non-current assets					
Long-term Member States		31 500			31 500
Current assets					
Receivables - Member States	33 890	- 31 500			2 390
Other receivables and prepayments	33 865		- 639		33 226
Cash and cash equivalents	141 783		1 806		143 589
Total ASSETS	8 822 578		1 167		8 823 745
Net assets					
Foundations capital			100		100
Accumulated surpluses and deficits	286 940		990	71 004	358 934
Net surplus/deficit (-) for the period	- 150 554		- 19	- 71 004	- 221 577
Total net assets	136 385		1 071		137 456
Non-current liabilities					
Long-term teams and collaborations		92 485			92 485
Current liabilities					
Payables - trade accounts	84 809		12		84 821
Payables - teams and collaborations	200 376	- 92 485			107 891
Deferred revenue	32 617		84		32 701
Total liabilities	8 686 193		96		8 686 289
Total LIABILITIES and NET ASSETS	8 822 578		1 167		8 823 745
STATEMENT OF FINANCIAL PERFORMANCE					
Revenue					
Other revenue	93 416		26		93 442
Total revenue	1 296 703		26		1 296 730
Expenses					
Goods, consumables and supplies	87 850	- 381			87 469
Industrial services	87 590	- 435			87 155
Associated members of personnel	35 752	1 081			36 834
Other overheads	45 141	- 265	46		44 922
Post-employment benefits	84 319			71 004	155 323
Total expenses	1 447 257		46	71 004	1 518 307
NET DEFICIT FOR THE PERIOD	- 150 554		- 19	- 71 004	- 221 577

Consolidation – financial position

KCHF	CERN	C&S	CUMUL	Elimination	CONSOLIDATION
ASSETS					
Non-current assets					
	8,513,445	-	8,513,445	-	8,513,445
Current assets					
Other receivables and prepayments	39,988	19	40,006	(302)	39,704
Cash and cash equivalents	101,810	1,744	103,554		103,554
	181,302	1,763	183,065	(302)	182,761
Total	8,694,747	1,763	8,696,510	(302)	8,696,206
LIABILITIES & NET ASSETS					
Net assets					
Foundation capital		50	50		50
Accumulated surpluses and deficits	96,128	657	96,785	364	97,149
Net surplus/deficit (-) for the period	(261,997)	69	(261,928)	94	(261,834)
	(165,869)	776	(165,093)	458	(164,635)
Non-current liabilities					
	8,487,776	-	8,487,776	-	8,487,776
Current liabilities					
Payables - trade accounts	90,043	6	90,049		90,049
Deferred revenue	47,377	678	48,055	(458)	47,597
Other current liabilities	3,046	302	3,348	(302)	3,046
	372,839	987	373,826	(760)	373,066
Total	8,694,746	1,763	8,696,509	(302)	8,696,206

Consolidation – financial performance

kCHF	CERN	C&S	CUMUL	Elimination		CONSOLIDATION
REVENUE						
Member States' contributions	1 122 924		1 122 924			1 122 924
Associate Member States in pre-stage to Membership contributions	3 920		3 920			3 920
Associate Member States' contributions	21 393		21 393			21 393
Special contribution from a Member State						
EU contributions	16 053		16 053			16 053
Financial revenue	762		762			762
Internal taxation	34 584		34 584			34 584
Other revenue	73 103	1 443	74 545	- 1 160	b	73 386
	1 272 739	1 443	1 274 182	- 1 160		1 273 022
EXPENSES						
MATERIALS						
Goods, consumables and supplies	92 728		92 728			92 728
Electricity, heating gas and water	65 316		65 316			65 316
Industrial services	71 020		71 020			71 020
Associated members of personnel	35 192		35 192			35 192
Other overheads	58 022	1 373	59 395	- 1 253	b	58 142
	322 279	1 373	323 652	- 1 253		322 399
PERSONNEL						
	664 969		664 969			664 969
FINANCIAL EXPENSES	9 961		9 961			9 961
DEPRECIATION AND AMORTISATION EXPENSES	458 936		458 936			458 936
CHANGE IN PROVISION FOR RADIOACTIVE WASTE	- 9 493		- 9 493			- 9 493
WRITE-OFF NON-CURRENT ASSETS	28 084		28 084			28 084
RECAPITALISATION PENSION FUND	60 000		60 000			60 000
	1 534 736	1 373	1 536 110	- 1 253		1 534 856
NET SURPLUS/DEFICIT (-) FOR THE PERIOD	- 261 997	69	- 261 927	94		- 261 833

Impact of IPSAS 39 on post emp PF

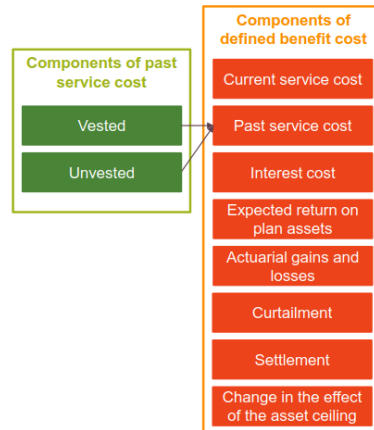
New components of defined benefit cost.

IPSAS 25

Components of defined benefit cost in IPSAS 25 that are amended in IPSAS 39 are:

- Interest cost and expected return on plan assets – replaced by a single net interest component.
- Curtailments – as one form of past service cost.

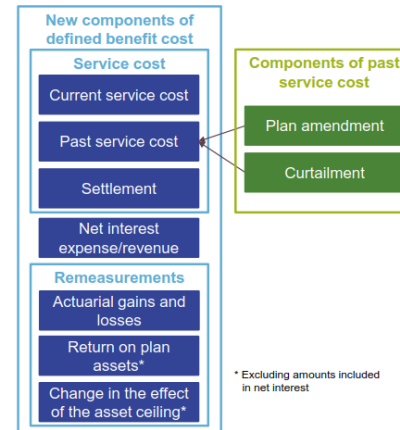
The net interest approach results in an entity recognizing interest revenue/expense due to the passage of time when the plan has a surplus/deficit.



IPSAS 39

New components:

- Service cost – the liability that arises from employees providing service during the period.
- Net interest – the interest expense/revenue on the net defined benefit liability (asset).
- Remeasurements – other changes in the value of the defined benefit obligation, such as changes in estimates and other changes in the value of plan assets.



* Excluding amounts included in net interest

Impact of IPSAS 39 on post emp PF

Statement of financial performance	31 December 2018 (predicted, under IPSAS39)	31 December 2017 (actual, under IPSAS25)	31 December 2016 (actual, under IPSAS25)
Current employer service cost	202,193	206,905	205,553
Administration expenses*	0	n/a	n/a
Interest cost	n/a	124,999	123,305
Expected return on assets of the Fund	n/a	(176,311)	(176,946)
Net Interest Cost on the defined benefit obligation/(asset)	73,757	n/a	n/a
Past service cost	0	0	0
Curtailment	0	0	0
Settlement (gain)/loss	0	0	0
Total Expense / (Income) to be recognised	275,950	155,593	151,912

IPSAS 39

- An entity makes a judgement whether the discount rate that reflects the time value of money is best approximated by reference to market yields at the end of the reporting period on government bonds, high quality corporate bonds, or by another financial instrument.
- Actuarial assumptions are an entity's best estimates of variables that will determine the ultimate cost of providing post-employment benefits. They shall be unbiased and mutually compatible. (39.77) Mutually compatible means they reflect economic relationships between factors such as inflation, rates of salary increase, and discount rates.

Other Revenues - details

kCHF	2018	2017
Revenues in-kind on PPE, not included in budget	1 212	24 843
Revenues in-kind on PPE, included in budget	2 808	5 390
Interest benefit from interest-free loan	1 742	1 803
Computing: material and training	76	13
Material made available without charge		-
Subtotal of other in-kind contributions	5 839	32 049
Activities recharged to team accounts	19 443	18 423
Personnel paid through team accounts	12 883	12 023
SCOAP3	8 546	5 242
Revenue from the housing activity	6 042	6 051
Revenue for HIE-ISOLDE, IdeaLab, FAIR, SH.NEUTRINOS	2 556	3 191
Knowledge transfer	2 051	1 660
OpenLab revenues	1 802	2 190
Personnel on detachment	484	945
Sales and miscellaneous	13 740	11 669
Department revenues	7 150	5 842
Miscellaneous	2 507	1 232
Sales	1 757	3 012
Sponsoring	1 247	569
Schools & conferences	1 079	1 014
Subtotal of others	67 547	61 394
Total	73 386	93 442

Other Overheads - details

Other overheads	58 142	44 922
CERN Contributions	6 708	4 910
Communication	1 026	1 535
Consultants	9 250	4 171
Duty and hospitality	11 844	11 010
Insurance	4 796	4 736
Library	12 337	7 040
Other overheads	1 311	1 338
Rental	1 992	1 545
Training	4 431	3 565
Transport	2 112	2 605
Visits and conferences	2 336	2 465