ETH DOMAIN

FINANCIAL REPORT OF THE ETH BOARD ON THE ETH DOMAIN 2018

Rounding differences: The figures presented in this document may not correspond precisely to the total amounts presented in the tables. Changes are calculated on unrounded amounts and may differ from a figure that is based on the rounded amounts presented in the tables.

Financial Report of the ETH Board on the ETH Domain 2018

Report on the 2018 Financial Year

Principles of and remarks to the consolidated financial statements

Basis of accounting

The consolidated financial statements of the ETH Domain comprise the statement of financial performance, balance sheet, cash flow statement, statement of changes in equity, and the Notes. They have been prepared and certified by the auditors in accordance with the International Public Sector Accounting Standards (IPSAS).

Relationship between the consolidated financial statements and the financing statement

The consolidated financial statements presented below are based on the concept of consumption of resources: the revenue and expenses are accrued, per the period to which they belong. In addition to the financial performance, the financial statements also show the financial position and the net assets.

The situation is different with the financing statement, which can be found from page 100 of the Annual Report. Receipts and expenditures are shown there and allocated to the period in which the funds flow.

Ownership status of the ETH Domain's real estate

The consolidated financial statements reflect the actual legal ownership of the ETH Domain's real estate: the vast majority of the real estate used by the ETH Domain is owned by the Federal Government and is, therefore, not included in these financial statements.

The Federal Government has transferred the management of the state-owned real estate used to the ETH Domain. Investments in the state-owned real estate concerned that are triggered and monitored by the ETH Domain are explained in the Annual Report, from page 95 onwards. The investment credit for the real estate owned by the Federal Government and the Federal financial contribution are shown in the financing statement under 'Total federal contribution from the expenditure ceiling'. The financing statement of the ETH Domain thus comprehensively reflects the political control exercised by the Federal Government.

In contrast, in the consolidated financial statements of the ETH Domain, 'Total federal contribution' (see Note 7) is made up of the Federal financial contribution and the Federal contribution to accommodation. Accommodation expenses, i.e. a rent, for the use of this real estate owned by the Federal Government are recognised under operating expenses to the same extent, so that these two items offset each other in the annual result.

Investments in real estate owned by the ETH Domain are financed from the Federal financial contribution and form part of the consolidated financial statements.

Comparability with previous years

The 2018 and 2017 financial statements are directly comparable. There are three effects to be taken into account when comparing with the 2016 and 2015 financial statements: (1) The strategic objectives set for the ETH Domain by the Swiss Federal Council for the new ERI 2017–2020 period have applied since 2017. (2) The revised IPSAS standard for employee benefits (IPSAS 39; in particular, change to the net interest approach) was applied for the first time in 2017. (3) In 2015 and 2016, transitional provisions were in place, from 2017 onwards IPSAS was applied fully. The implementation of one of these requirements led to a significant expansion in the scope of consolidation: up to the end of 2016, the consolidated financial statements comprised exclusively the six institutions of the ETH Domain and the ETH Board. Since 1 January 2017, all the entities have been included which are controlled by or can be significantly influenced by the institutions of the ETH Domain or by the ETH Board. ETH Zurich and EPFL control fully consolidated entities (number: 6). The two universities and the PSI include in their financial statements the investment values of the significantly influenced entities or associated entities respectively (number: 10).

The ETH Domain assumes responsibility. It uses the funds received prudently, and with great cost awareness.

Key developments in the 2018 financial statements at a glance

In line with the Federal Council's strategic objectives for the ETH Domain, the 2018 consolidated financial statements show the following significant developments that could have been directly influenced by the ETH Domain:

- Revenue from third-party funding once again exceeded the high figures from the previous years.
- There was a modest rise in personnel expenses and other operating expenses.
- Depreciation increased markedly due to the high investments made in previous years.

The last two items, together with the negative financial result and the share of deficit of associated entities, have a negative impact on the annual surplus (2018: CHF 50m; 2017: CHF 209m).

Net defined benefit liabilities

The net defined benefit liabilities of the ETH Domain show the obligations from the pension plans of the ETH Domain, which provide benefits upon retirement, death and disability. The majority of insured persons and pensioners from the ETH Domain are insured with PUBLICA in the ETH Domain pension scheme.

In contrast to static accounting under Swiss pension law, the annual calculation of net defined benefit liabilities under IPSAS 39 is based, among other things, on actuarial assumptions that take account of future developments. Their change has an impact, to a greater or lesser degree, on personnel expenses and on the surplus or deficit, and leads to annual fluctuations in equity. The annual return on plan assets at PUBLICA is for the most part not recognised in surplus or deficit, but directly in equity in the consolidated financial statements of the ETH Domain. Some developments in the 2018 annual financial statements can therefore only be understood if these effects are taken into consideration:

1. In the reporting period, only the interest rate on retirement savings was adjusted downwards in the actuarial assumptions. The effects on equity and personnel expenses, as well as in the annual result are negligible in 2018.
2. The negative return on plan assets at PUBLICA, on the other hand, caused the negative valuation reserve of net defined benefit liabilities to rise (–CHF 253m), thus bringing down equity.
3. The net defined benefit liabilities increased by CHF 344m to CHF 2,239m compared to the previous year due to the effects described above and the increase in the number of insured persons.

Consolidated statement of financial performance

CHF millions	2018	2017	2016	2015
Operating revenue	**3,714**	**3,698**	**3,598**	**3,475**
Changes to previous year	0%	3%	4%	1%
Operating expenses	**3,631**	**3,515**	**3,314**	**3,252**
Changes to previous year	3%	6%	2%	1%
NET FINANCE INCOME / EXPENSE	**–22**	**13**	**5**	**–9**
SURPLUS (+) OR DEFICIT (–)	**50**	**209**	**289**	**214**
Third-party funds relative to operating revenue	29%	28%	29%	28%
Personnel expenses relative to operating revenue	63%	62%	58%	59%

Operating revenue

The ETH Domain is expanding its financing base. It raises third-party funding successfully and in line with its strategic objectives.

Operating revenue increased by CHF 16m to CHF 3,714m in the reporting period.

Federal financing, the **'total federal contribution'** (see Note 7), accounted for 71% (2017: 72%) of the operating revenue. It consisted of the federal financial contribution of CHF 2,357m (2017: CHF 2,378m) and the federal contribution to accommodation of CHF 269m (2017: CHF 278m). Compared to the previous year, the total federal contribution in the consolidated financial statements declined by CHF 31m. However, with regard to the financing statement – also refer to the section on Ownership status of the ETH Domain's real estate above – the ETH Domain had identical funds available to it in the reporting period and the previous year from the total federal contribution from the expenditure ceiling, as the respective changes in the Federal financial contribution and the investment credit offset each other.

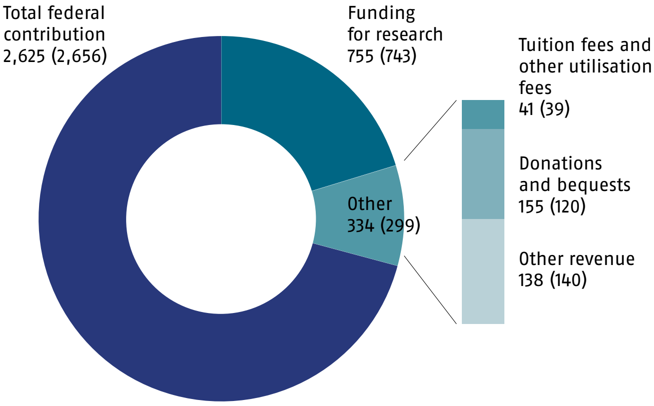
Revenue from third-party funds (see Notes 8, 9, 10, 11), now again with a view to the consolidated financial statements, increased once more by CHF 47m or +4% to CHF 1,089m compared with the high figure in the previous year. In the reporting period, they accounted for 29% (2017: 28%) of the operating revenue.

The **revenue from research contributions, mandates and scientific services**, which amounts to CHF 755m (2017: CHF 743m) or a share of 20% is the second most important component of the operating revenue. These are mainly multi-year research projects. Revenue is recognised on the basis of the work completed. It is determined on the basis of the actual project costs incurred (cost-of-completion method) and can, therefore, vary widely. During the reporting period, revenue rose by a total of CHF 12m or 2%.

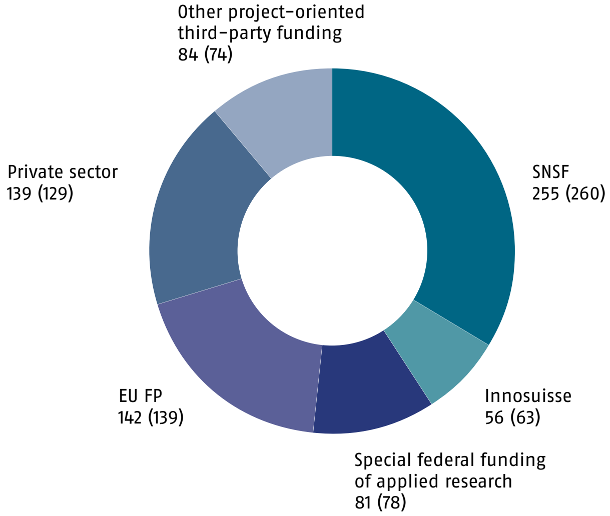
In terms of research contributions in 2018, the strongest growth was achieved by projects financed by the private sector and by the cantons, municipalities and international organisations (other project-oriented third-party funds).

The increase in revenue from **industry-oriented research** (+CHF 9m, +7%) is related to increased project progress and increased project volume, particularly at ETH Zurich. In the case of **other project-oriented third-party funding**, the loss of revenue from completed projects (PSI, SwissFEL / ARAMIS) was more than made up for by newly received grants (EPFL Valais Wallis and Freiburg Smart Living Lab; Empa Thun site) (+CHF 10m, +13%).

Operating revenue in 2018 in CHF m
CHF 3,714m (previous year: CHF 3,698m).



Research contributions in 2018 in CHF m
CHF 755m (previous year: CHF 743m)



The revenues from the **EU Framework Programmes for Research and Innovation (FP)** were slightly higher than in the previous year, confirming the positive trend (+CHF 3m, +2%). The revenue included more of the Horizon 2020 projects (2014–2020) which have now started, while projects from the 7th FP (2007–2013) are coming to an end or have already been completed. The ETH Domain holds the largest share of participations of the competitive funding from EU FPs in Switzerland.

In **special federal funding of applied research**, there is a visible shift from research funding to contract research. Revenue in 2018 was up mainly due to increased project progress (+ CHF 3m, + 4%). In particular, WSL recorded higher activities in the research environment of the Federal Government.

As in the previous year, a high degree of realisation was achieved in **Swiss National Science Foundation (SNSF)** projects, one of the Federal Government's funding agencies. Project revenue was down slightly (–CHF 6m, –2%). The ETH Domain is involved in research activities in the National Research Programmes (NRPs), the National Centres of Competence in Research (NCCRs) and in Sinergia, the programme for collaborative and interdisciplinary research. Some of the projects are still at an early stage. The completion of the SystemsX.ch research initiatives and of the Nano-Tera.ch project, which was also coordinated by ETH Zurich, was reflected in the reduced revenue.

The funding of **research projects by Innosuisse**, another federal funding agency, was down on the previous year due to the current project phase (– CHF 7m, –11%). Among other things, it reflects the lower volume of new projects for the operation of networked inter-university competence centres for energy research, i.e. Swiss Competence Centers for Energy Research (SCCER), as part of the action plan "Coordinated Energy Research Switzerland". The ETH Domain is involved in all eight SCCER projects, seven of them in a leading capacity.

Third-party funding also includes the following components of operating revenue. They have developed as follows:

Revenue from donations and bequests were also considerably high this year (2018: CHF 155m; 2017: CHF 120m). Most of the donation agreements concluded in 2018 were fully recognised in the surplus in the reporting period. Revenue from donations has thus contributed significantly to the fact that the annual result of the ETH Domain is still in the positive range. The growth in the number of students and doctoral students was reflected in the higher **revenue from tuition fees and other utilisation fees** (2018: CHF 41m; 2017: CHF 39m). The **other revenue** was slightly down on the previous year's level (2018: CHF 138m; 2017: CHF 140m).

Obtained grants

The analysis of the balance sheet, which is explained in more detail below, shows that receivables and dedicated third-party funds increased significantly in 2018 compared with the previous year. From this it can be deduced that the revenue from research contributions will remain at the high level or even tend to rise. This trend can also be supported by the funding awarded in the reporting period by the Swiss National Science Foundation (SNSF), the EU Research Framework Programmes for Research and Innovation (EU FPs) and Innosuisse (grant of funding in 2018: CHF 512m; 2017: CHF 422m). It should be noted that double counting is possible for these values due to the structure of the leading house contracts contained therein. The SNSF committed almost CHF 280m in research funding to the ETH Domain in 2018, 5% up on the previous year. The successful acquisition of "Future and Emerging Technologies" (FET) projects and prestigious awards such as the ERC grants was reflected in the allocation of EU FP funds (CHF 210m). The volume of these research projects obtained under competitive conditions was almost double that of the previous year. There has only been a downward trend in funding from Innosuisse. The funding committed in 2018 fell by more than half to CHF 23m.

The ETH Domain provides teaching and research. And that costs money. Our top-quality performance takes Switzerland and science a step further.

Operating expenses

Operating expenses increased by CHF 116m or 3% in the reporting period. Research and teaching are personnel-intensive and require continuous investment.

Personnel expenses is the largest expense item (2018: 64%; 2017: 66%). Compared to the previous year, it rose by a total of CHF 30m to CHF 2,333m.

The increase in salaries and wages of only CHF 42m reflects the compensation measures decided upon by the ETH Board for 2018 and the moderate increase in the percentage of FTEs. The average headcount in the whole ETH Domain in 2018 was 18,453 full-time equivalents (FTEs), excluding apprentices. This is 2% up on the previous year’s figure of 18,044 FTEs.* The net pension costs remained almost unaffected by the effects of the calculation of the net defined benefit liabilities (see explanations above in the section on Net defined benefit liabilities). The other items of personnel expenses, with one exception, remained at the previous year's level. The CHF 12m reduction is mainly due to the non-recurring effect of the change in the provision for undue long-service benefits: the calculation method has been adjusted.

The **other operating expenses** amounted to CHF 990m (previous year: CHF 958m). Greater material consumption due to increased progress on projects, higher use of consulting services and higher costs for software migrations led to an increase in other operating expenses. Since this reporting year, a portion of the revenue from real estate owned by the Federal Government left for use has had to be remitted to the Federal Government. This amounted to CHF 2m and is included in other operating expenses. The other operating expenses also include the accommodation expenses for the use of state-owned real estate.

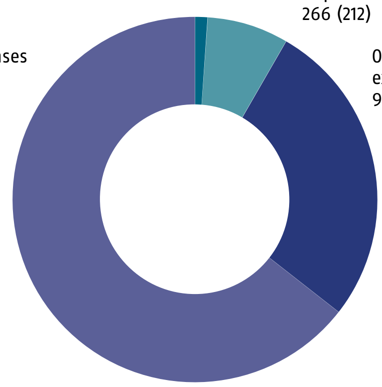
The higher **depreciation** is a consequence of the high investments made in previous years in strategically relevant large-scale research facilities and technical equipment (2018: CHF 266m; 2017: CHF 212m).

Transfer expenses were commensurate with the previous year in terms of value and content (2018: CHF 43m; 2017: CHF 42m).

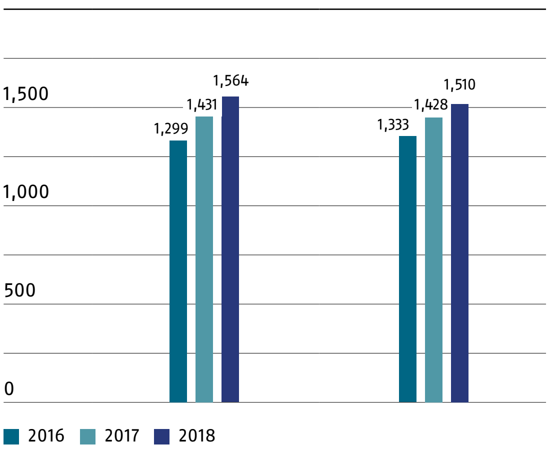
* The annual report does not show the annual average value but the year end figure. This is 19,120.4 FTEs (including apprentices). The figure in the annual report also excludes the FTEs of the controlled entities.

Operating expenses in 2018 in CHF m

CHF 3,631m (previous year: CHF 3,515m).



Receivables and dedicated third-party funds



Consolidated balance sheet

CHF millions	31.12.2018	31.12.2017	31.12.2016	31.12.2015
Current assets	**2,913**	**2,771**	**2,149**	**1,994**
Non-current assets	**3,354**	**3,066**	**2,892**	**2,693**
TOTAL ASSETS	**6,267**	**5,837**	**5,041**	**4,686**
Liabilities	**5,261**	**4,626**	**4,918**	**4,321**
Valuation reserves	–1,364	–1,109	–1,717	–1,186
Dedicated reserves	1,123	949	812	745
Free reserves	967	965	886	851
Other equity	280	407	142	–45
Equity	**1,006**	**1,212**	**123**	**365**
TOTAL LIABILITIES AND EQUITY	**6,267**	**5,837**	**5,041**	**4,686**

The total assets for the ETH Domain were up CHF 429m or 7% on the previous year. The rise is mainly attributable to the increase in receivables, property, plant and equipment, and provisions as well as to the higher level of cash and cash equivalents, while other effects balance each other out.

Receivables and dedicated third-party funds

As in the previous year, receivables from non-exchange transactions and dedicated third-party funds in liabilities each accounted for around one quarter of total assets.

These third-party funds flow from funding organisations, the public sector, industry and donors. This enables the ETH Domain to finance and promote its project and research activities. With each payment made to finance the progress of a project, these receivables decrease over the course of the year; newly concluded contracts increase them. Therefore, the balance of receivables reflects the outstanding financing framework for current projects and granted donations. The balance of dedicated third-party funds, however, corresponds to the outstanding performance obligations from current research projects and orders.

By the end of 2018, receivables irrespective of maturity amounted to CHF 1,564m (2017: CHF 1,431m). Of these, receivables from the SNSF, receivables from EU research projects and receivables from other donors made up the largest share.

The receivables from project business still outstanding at the end of 2018 were matched by dedicated third-party funds of CHF 1,510m (2017: CHF 1,428m). The rise of CHF 83m or 6% shows that at the end of 2018 there was a higher project or research volume available than in the previous year, for which services still have to be provided in the coming years.

Refer to the diagram opposite on "Receivables and dedicated third-party funds" on page 8.

Property, plant and equipment

The balance sheet value of property, plant and equipment stood at CHF 2,023m at the end of 2018, up CHF 161m. A gross figure of CHF 211m was invested in property, plant and equipment in 2018 (see cash flow statement). The property, plant and equipment were paid for from the ETH Domain's own resources, i.e. from the total federal contribution and from third-party funding. The value of the change in the provision for the dismantling of the accelerator facilities was added directly to the cost of the accelerator facilities. This transaction has no impact on cash. The property, plant and equipment account for almost one-third of the total assets.

Financial assets

Financial assets with a balance of CHF 1,441m (2017: CHF 1,415m) include third-party funds received that are not used immediately. On the basis of the prevailing treasury agreement between the FFA and the ETH Domain, these funds are placed with the Federal Government or on the market. CHF 1,163m of the total financial assets were invested with the Federal Government, and CHF 265m with financial institutions. CHF 40m was paid into the deposit accounts with the Federal Government in the reporting period. By contrast, the volume of third-party funds placed on the market fell by CHF 12m, as the asset management mandates closed 2018 with a negative performance. Financial assets also account for almost one-quarter of the total assets.

Provisions

Provisions totalling CHF 813m (2017: CHF 608m) include provisions set aside for the dismantling of the accelerator facilities and the disposal of radioactive waste at the PSI amounting to CHF 631m. They were increased by CHF 205m in the reporting period on the basis of the updated 2018 Federal Government cost estimate.

Equity and reserves

The ETH Domain's sustainable financing strategy strenghtens Switzerland as a centre of research.

During the reporting period, equity decreased by CHF 206m to CHF 1,006m. The increase in negative reserves due to the negative performance on the plan assets contributed significantly to the decrease (–CHF 253m), as explained above in the section on net defined benefit liabilities.

The dedicated reserves increased by CHF 174m to CHF 1,123m and the free reserves by CHF 2m to CHF 967m. The increase in the dedicated reserves was mainly due to the high net revenue from the donation agreements. Furthermore, funds for multi-year strategic projects were agreed upon in 2018, but not yet triggered. For this purpose, part of the free reserves was reclassified as dedicated reserves.

The ETH Domain uses the available resources consciously and carefully, which can lead to an increase in reserves. The free reserves provide the necessary room for manoeuvre in order to assume responsibility for teaching and research autonomously. For example, they make it possible to respond quickly when national or international development opportunities arise for which financing is to be secured. The ETH Domain always uses the available funds in line with its strategy and economically.

Consolidated cash flow statement

In the current 2018 period, the total **cash flow from operating activities** amounted to CHF 388m (2017: CHF 397m) and was composed of the surplus of CHF 50m adjusted for non-cash expenses and revenues in the statement of financial performance (depreciation, etc.), as well as the relevant changes from the balance sheet.

The balance of **cash flow from investing activities** amounted to –CHF 260m in 2018 (2017: –CHF 297m). The decrease of CHF 37m is mainly attributable to fewer additions to property, plant and equipment and to current and non-current financial assets. In addition, lower divestments were also recorded.

The majority of investments were made in movable and immovable assets, in particular user-specific leasehold improvements and expenses for operating equipment, to a total value of CHF 211m (2017: CHF 228m). In the reporting period, some CHF 80m of the total federal contribution (2017: CHF 62m) was invested in ETH Domain-owned real estate.

Particular mention should be made of the following from the 2018 investment programme:

– ETH Zurich: The largest investment in movable assets concerns the cryo transmission electron microscope (CHF 3m, CHF 1m of which was financed from third-party funds). Larger investments were also made in information technology: an investment of CHF 4m was made in the CSCS for the Piz Daint high-powered computer for additional computer cabinets. CHF 2m was spent on the expansion of the Euler Cluster (Euler V). ETH Zurich invested CHF 11m on larger user-specific fixtures and equipment, as well as leasehold improvements. They involved leasehold improvements for AgroVet-Strickhof, a joint project between ETH Zurich, the University of Zurich and the Canton of Zurich, for the renovation of the HPM "Kopfbau" building (cell biology / biochemistry), for the new-build on Gloriastrasse (Medtech), as well as for a standby generator system.
– EPFL: The largest acquisition in the area of movable assets was the Helios G4 electron microscope (CHF 1m). In IT procurement, EPFL invested in particular in the SCITAS computer cluster (CHF 6m; financed by third-party funds) and the Blue Brain Project (CHF 4m).
– PSI: The greater part was invested in technical facilities such as the user-specific expansion of the ATHOS / SwissFEL beamline (CHF 14m) and the expansion of the Gantry 3 proton therapy facility (CHF 9m; financed by third-party funds).
– WSL: various analytical instruments (just under CHF 1m).
– Empa: CHF 3m for the NEST research and innovation building. CHF 1m was financed from third-party funds.
– Eawag: Procurement of spectrometers and other equipment (CHF 1m).

The **cash flow from financing activities** was used for payments from finance leases of around CHF 9m.

This leaves a **net cash flow of CHF 118m**. Cash and cash equivalents increased by this amount compared to the previous year.

Consolidated financial statements

Consolidated statement of financial performance

Table 1: Statement of financial performance of the ETH Domain (consolidated)

CHF millions	Notes	Budget 2018	Actual 2018	Actual 2017	Change to Actual absolute
Federal financial contribution		2,357	2,357	2,378	−21
Federal contribution to accommodation		269	269	278	−10
Total federal contribution	7	**2,625**	**2,625**	**2,656**	**−31**
Tuition fees and other utilisation fees	8	**37**	**41**	**39**	**2**
Swiss National Science Foundation (SNSF)		252	255	260	−6
Swiss Innovation Agency (Innosuisse)*		60	56	63	−7
Special federal funding of applied research		75	81	78	3
EU Framework Programmes for Research and Innovation (FP)		144	142	139	3
Industry-oriented research (private sector)		129	139	129	9
Other project-oriented third-party funding (incl. cantons, municipalities, international organisations)		71	84	74	10
Research contributions, mandates and scientific services	9	**732**	**755**	**743**	**12**
Donations and bequests	10	**76**	**155**	**120**	**35**
Other revenue	11	**114**	**138**	**140**	**−2**
Operating revenue		**3,585**	**3,714**	**3,698**	**16**
Personnel expenses	12, 28	2,306	2,333	2,303	30
Other operating expenses	13	979	990	958	32
Depreciation	21, 23	215	266	212	53
Transfer expenses	14	179	43	42	1
Operating expenses		**3,679**	**3,631**	**3,515**	**116**
OPERATING RESULT		**−94**	**83**	**182**	**−100**
NET FINANCE INCOME / EXPENSE	15	**7**	**−22**	**13**	**−35**
Share of surplus / deficit of associated entities and joint ventures	20	–	−11	14	−24
SURPLUS (+) OR DEFICIT (−)		**−87**	**50**	**209**	**−159**

* Innosuisse, the Swiss Innovation Agency, took over the role of the Commission for Technology and Innovation (CTI) on 1 January 2018.

Consolidated balance sheet

Table 2: Balance sheet of the ETH Domain (consolidated)

CHF millions	Notes	31.12.2018	31.12.2017	Change absolute
CURRENT ASSETS				
Cash and cash equivalents	16	852	733	118
Current receivables from non-exchange transactions	17	558	555	3
Current receivables from exchange transactions	17	36	38	–2
Current financial assets and loans	22	1,409	1,389	20
Inventories	18	10	10	–1
Prepaid expenses and accrued income	19	48	45	3
Total current assets		**2,913**	**2,771**	**141**
NON-CURRENT ASSETS				
Property, plant and equipment	21	2,023	1,863	161
Intangible assets	21	67	68	–1
Non-current receivables from non-exchange transactions	17	970	838	132
Non-current receivables from exchange transactions	17	–	–	–
Investments in associated entities and joint ventures	20	135	147	–12
Non-current financial assets and loans	22	32	26	6
Co-financing	23	128	125	3
Total non-current assets		**3,354**	**3,066**	**288**
TOTAL ASSETS		**6,267**	**5,837**	**429**
LIABILITIES				
Current liabilities	24	179	172	7
Current financial liabilities	25	16	16	1
Accrued expenses and deferred income	26	142	134	7
Short-term provisions	27	109	103	6
Short-term liabilities		**446**	**425**	**21**
Dedicated third-party funds	29	1,510	1,428	83
Non-current financial liabilities	25	361	374	–12
Net defined benefit liabilities	28	2,239	1,894	344
Long-term provisions	27	705	505	199
Long-term liabilities		**4,815**	**4,201**	**614**
Total liabilities		**5,261**	**4,626**	**635**
EQUITY				
Valuation reserves		–1,364	–1,109	–255
Dedicated reserves		1,123	949	174
Free reserves		967	965	2
Co-financing	23	128	125	3
Reserves from associated entities	20	135	147	–12
Accumulated surplus (+) / deficit (–)		17	135	–118
Total equity		**1,006**	**1,212**	**–206**
TOTAL LIABILITIES AND EQUITY		**6,267**	**5,837**	**429**

Consolidated statement of changes in equity

Table 3: Statement of changes in equity for the ETH Domain (consolidated)

CHF millions	Valuation reserves	Donations and bequests	Teaching and research reserves	Infrastructure and administration reserves	Dedicated reserves	Free reserves	Co-financing	Reserves from associated entities	Accumulated surplus (+) / deficit (–)	Total equity
2017										
Value as of 01.01.2017	**–1,717**	**475**	**281**	**57**	**813**	**886**	**133**	**134**	**145**	**394**
Surplus (+) or deficit (–)									**209**	**209**
Items directly recognised in equity:										
Revaluation of financial assets	**2**									**2**
Revaluation of defined benefit liability	**606**									**606**
Hedging transactions	**–**									**–**
Total items directly recognised in equity	**608**									**608**
Changes in investments in associated entities directly recognised in equity								**–**	**–**	**–**
Increase (+) / decrease (–) in reserves	**–**	37	69	29	**136**	**79**	**–9**	**13**	**–219**	**–**
Currency translations									**–**	**–**
Total changes	**608**	**37**	**69**	**29**	**136**	**79**	**–9**	**13**	**–10**	**817**
Value as of 31.12.2017	**–1,109**	**512**	**350**	**86**	**949**	**965**	**125**	**147**	**135**	**1,212**
2018										
Value as of 01.01.2018	**–1,109**	**512**	**350**	**86**	**949**	**965**	**125**	**147**	**135**	**1,212**
Surplus (+) or deficit (–)									**50**	**50**
Items directly recognised in equity:										
Revaluation of financial assets	**–2**									**–2**
Revaluation of defined benefit liability	**–253**									**–253**
Hedging transactions	**–**									**–**
Total items directly recognised in equity	**–255**									**–255**
Changes in investments in associated entities directly recognised in equity								**–1**	**–**	**–1**
Increase (+) / decrease (–) in reserves		90	82	2	**174**	**2**	**3**	**–11**	**–168**	**–**
Currency translations									**–**	**–**
Total changes	**–255**	**90**	**82**	**2**	**174**	**2**	**3**	**–12**	**–118**	**–206**
Value as of 31.12.2018	**–1,364**	**603**	**432**	**88**	**1,123**	**967**	**128**	**135**	**17**	**1,006**

During the reporting year, equity fell by CHF 206m to CHF 1,006m. The entire equity is attributed to the owner.

The negative valuation reserve increased mainly due to the revaluation of the defined benefit liability and thus equity decreased (–CHF 255m). However, the 2018 surplus contributed to the increase in the equity (+CHF 50m).

Valuation reserves

The main component of the negative valuation reserves is the net cumulative actuarial and investment losses from defined benefit pension plans (–CHF1,366m). In the reporting period, the increase was mainly due to the negative performance of the plan assets (–CHF 253m). Further details can be found in Note 28 Net defined benefit liabilities.

The revaluation reserves for financial assets according to IPSAS 29 decreased by CHF 2m to CHF 2m. As hedge accounting is not applied in the ETH Domain, there are also no items recognised under the reserves from hedging transactions.

Dedicated reserves

The dedicated reserve for donations and bequests rose to CHF 603m, as more new donation contracts were concluded than funds consumed (net rise of CHF 90m).

The dedicated teaching and research reserves of CHF 432m include funds to cover expenses decided, but not yet incurred, for the multi-year strategic focus areas and for other strategic projects. The increase of CHF 82m was related to new projects, mainly the "ETH+" initiative at ETH Zurich and strategic projects at the PSI. The balance at the end of 2018 includes electoral and appointment commitments amounting to CHF 128m (2017: CHF 129m).

Free reserves

Free reserves were up CHF 2m net on the previous year at CHF 967m. At EPFL, the research institutions and the ETH Board, free reserves increased by a total of CHF 59m. In contrast, free reserves at ETH Zurich decreased by CHF 57m, partly due to the "ETH+" initiative.

Free reserves mainly originate from self-generated revenue and from surpluses from completed research projects. The use of the free reserves lies within the autonomy of the ETH Board or each entity within the ETH Domain. The free reserves offer scope for strategic initiatives in teaching and research, contribute towards planning security and are used, among other things, to cushion the impact of loss of earnings or currency losses.

Co-financing

The institutions of the ETH Domain use co-financing as a means of becoming involved in construction projects for state-owned real estate through the provision of third-party funding. The change in the reporting period is explained in Note 23 Co-financing.

Accumulated surplus / deficit

The accumulated surplus of CHF 17m as of 31 December 2018 is the residual amount of total equity less the reserve items shown separately. It shows the status of the cumulative results on the reporting date and includes the surplus or deficit carried forward, the annual surplus or deficit, as well as the increase or decrease in reserves.

The accumulated surplus at the beginning of the year and at 31 December 2017 (CHF 135m) decreased mainly due to the net allocation to the reserves.

Consolidated cash flow statement

Table 4: Cash flow statement of the ETH Domain (consolidated)

CHF millions	Notes	2018	2017	Change absolute
CASH FLOWS FROM OPERATING ACTIVITIES				
Surplus (+) or deficit (–)		**50**	**209**	**–159**
Depreciation	21, 23	266	212	53
Share of surplus / deficit of associated entities and joint ventures	20	11	–14	24
Net finance income / expense (non-cash)	15	13	–17	30
Increase / decrease in net working capital		12	–79	91
Increase / decrease in net defined benefit liabilities	28	91	99	–8
Increase / decrease in provisions	27	205	17	187
Increase / decrease in non-current receivables	17	–146	–71	–74
Increase / decrease in dedicated third-party funds	29	101	28	73
Reclassification and other (non-cash) income		–216	11	–227
Cash flows from operating activities		**388**	**397**	**–9**
CASH FLOWS FROM INVESTING ACTIVITIES				
Investments				
Purchase of property, plant and equipment	21	–211	–228	17
Purchase of intangible assets	21	–3	–4	1
Increase in co-financing	23	–7	–1	–7
Increase in loans	22	–1	–	–1
Increase in current and non-current financial assets	22	–58	–108	50
Total investments		**–281**	**–341**	**60**
Divestments				
Disposal of property, plant and equipment	21	4	1	2
Disposal of intangible assets	21	–	–	–
Decrease in co-financing	23	–	5	–5
Decrease in loans	22	–	–	–
Decrease in current and non-current financial assets	22	16	37	–21
Total divestments		**20**	**43**	**–23**
Dividends received from associated entities and Joint Ventures	20	1	1	–
Cash flows from investing activities		**–260**	**–297**	**37**
CASH FLOWS FROM FINANCING ACTIVITIES				
Increase in short-term and long-term financial liabilities	25	1	1	–1
Decrease in short-term and long-term financial liabilities	25	–10	–10	–
Cash flows from financing activities		**–9**	**–9**	**–**
Total cash flow		**118**	**91**	**27**
Cash and cash equivalents at the beginning of the period	16	**733**	**642**	**91**
Total cash flow		**118**	**91**	
Cash and cash equivalents at the end of the period	16	**852**	**733**	**118**
Net effect of currency translation on cash and cash equivalents		–	–	–
Contained in the cash flows from operating activities are:				
Dividends received		3	2	–
Interest received		2	2	–
Interest paid		–9	–10	–

Notes to the consolidated financial statements

1 Business Activity

The ETH Domain includes the two Federal Institutes of Technology ETH Zurich and EPFL, and the four research institutes Paul Scherrer Institute (PSI), the Swiss Federal Institute for Forest, Snow and Landscape Research (WSL), Swiss Federal Laboratories for Materials Testing and Research (Empa), and the Swiss Federal Institute of Aquatic Science and Technology (Eawag). The six institutions are public law organisations of the Swiss Confederation with a legal personality. The ETH Domain also includes the Board of the Swiss Federal Institutes of Technology (ETH Board) as the strategic governing and regulatory body, and the Internal Appeals Commission of the ETH as an independent appeals instance.

Detailed information on the business activity, management and reporting of the ETH Domain is provided in the chapter on Governance (see Annual Report, p. 35 ff.).

2 Basis of Accounting

These financial statements are consolidated financial statements covering the reporting period from 1 January 2018 to 31 December 2018. The reporting date is 31 December 2018. The reporting is prepared in Swiss francs (CHF). All figures are shown in millions of Swiss francs (CHF million) unless indicated otherwise.

Legal basis

The legal basis of ETH Domain's accounting is formed of the version of the following (including directives and regulations) in effect in the reporting period:

- Federal Act on the Federal Institutes of Technology of 4 October 1991 (ETH Act; SR 414.110) (Systematische Rechtssammlung, SR; classified compilation of the Swiss federal law)
- Ordinance on the Domain of the Swiss Federal Institutes of Technology of 19 November 2003 (Ordinance on the ETH Domain; SR 414.110.3)
- Ordinance on the Finance and Accounting of the ETH Domain of 5 December 2014 (SR 414.123)
- Accounting Manual for the ETH Domain (version 6.3)

Accounting standards

The annual consolidated financial statements of the ETH Domain have been prepared in accordance with the International Public Sector Accounting Standards (IPSASs). The underlying accounting provisions are set out in the Accounting Manual for the ETH Domain (Art. 34 Directives, Ordinance on the Finance and Accounting of the ETH Domain, SR 414.123).

IPSAS issued but not yet applied

The following IPSAS was issued before the reporting date.

Standard	**Titel**	**Effective Date**
IPSAS 40	Public Sector Combinations	01.01.2019
IPSAS 41	Financial Instruments: Classification and Measurement (replaces IPSAS 29)	01.01.2022
IPSAS 42	Social Benefits	01.01.2022
Various	Improvements to IPSAS, 2018	various, as of 01.01.2019

The above mentioned standards and improvements to the IPSAS have not been early applied in these annual consolidated financial statements. The ETH Domain systematically analyses the effects on its annual consolidated financial statements. No material impact on the consolidated financial statements is currently expected. There are no further changes or interpretations which do not yet have to be applied and which would have a significant impact on the ETH Domain.

3 Accounting policies

The accounting policies are derived from the basis of accounting. The annual consolidated financial statements present a true and fair view of ETH Domain's financial position, financial performance and cash flows.

The consolidated financial statements are based on historical cost. Exceptions to this rule are described in the following presentation of the accounting principles.

Consolidation

The annual consolidated financial statements of the ETH Domain comprise the financial statements of the two Federal Institutes of Technology, the four research institutes, the ETH Board, as well as the financial statements of all the entities over which the aforementioned institutions or the ETH Board exercise direct or indirect control. The carrying amounts of investments in associated entities are also included in the consolidated financial statements.

Control means that, through its involvement with the entity, the institution or the ETH Board has the power to direct the relevant activities of the entity and thus the ability to affect the nature and amount of benefits. At the same time, the controlling entity is exposed, or has rights, to variable benefits. The institution or the ETH Board normally has control if it directly or indirectly holds more than 50% of the voting rights or potential voting rights of the entity. These entities are fully consolidated.

Entities are consolidated on the basis of the single-entity financial statements of the institutions, the ETH Board and the controlled entities. Receivables, liabilities, revenue and expenses from transactions between the consolidated entities as well as ownership interests and unrealised intra-economic entity surpluses are eliminated on consolidation. All financial statements are prepared in accordance with uniform policies and normally as at the same reporting date. Due to time constraints, it is sometimes necessary to use prior-year financial statements for controlled entities rather than the financial statements as at 31 December of the reporting period. The prior-year financial statements used make up an insignificant portion of the consolidated financial statements of ETH Domain and are adjusted for significant transactions between the prior-year reporting date and 31 December of the reporting period.

Investments in entities newly acquired in the course of the reporting period are included in the annual consolidated financial statements if they meet the consolidation criteria and exceed the thresholds defined in the Ordinance on the Finance and Accounting of the ETH Domain two years in succession. Entities which are sold are included up until the date on which control is lost, which is usually the date of disposal.

There are no non-controlling interests to consider or report in the ETH Domain.

Associated entities are entities where the institution or the ETH Board has significant influence, but not control. The institution or the ETH Board normally has significant influence over an associated entity if it holds a 20% to 50% share of the voting rights. These investments are not consolidated, but are instead accounted for using the equity method and recognised as investments in associated entities. Under the equity method, the value of the investment corresponds to the acquisition value, which is subsequently adjusted for any changes in the net assets oft the associated entity.

An overview of the controlled and associated entities can be found in section 35 Relationships with controlled and associated entities.

Currency translation

Transactions in a currency other than the functional currency are translated using the exchange rate at the transaction date.

At the reporting date, monetary items in foreign currencies are translated at the closing rate and non-monetary items using the exchange rate at the transaction date. The resulting currency translation differences are recognised as finance income or finance expense.

Assets and liabilities of controlled entities with a different functional currency are translated at the closing rate, and the statement of financial performance and cash flow statement at the average rate. Translation differences arising on the translation of net assets and statements of financial performance are recognised in equity.

The principal currencies and their exchange rates are:

Table 5: Principal currencies

		Closing rate as of		Average rate	
Currency	Unit	31.12.2018	31.12.2017	2018	2017
EUR	1	1.1265	1.1701	1.1549	1.1116
USD	1	0.9855	0.9743	0.9780	0.9846
GBP	1	1.2523	1.3168	1.3055	1.2681
JPY	1,000	8.9600	8.6460	8.8500	8.7780
SGD	1	0.7205	0.7289	0.7250	0.7130

Revenue recognition

Each inflow of funds is assessed to determine whether it is an exchange transaction (IPSAS 9) or a non-exchange transaction (IPSAS 23). In the case of an exchange transaction (IPSAS 9), the revenue is generally recognised when the goods are delivered or the services rendered. For project agreements, the performance obligation not yet performed is allocated to liabilities. The revenue is recorded and reported by reference to the stage of completion of the project, based on the costs incurred in the reporting period.

In the case of a non-exchange transaction (IPSAS 23), a distinction is made between whether or not there is a performance or repayment obligation. If there is such an obligation, the corresponding amount is recognised as a liability at inception of the agreement and released to surplus or deficit according to the stage of completion based on the resources consumed.

If there is neither an exchange nor a performance or repayment obligation in accordance with IPSAS 23, revenue is recognised in surplus or deficit in full in the reporting period and net assets / equity increased accordingly. This is usually the case with donations.

Revenue is structured as follows:

Total federal contribution

The contributions granted by the Federal Government to the ETH Domain include the federal financial contribution (in the narrower sense) and the federal contribution to accommodation. Both types of revenue are classified as non-exchange transactions (IPSAS 23).

Federal contributions are recognised in the year in which they are paid. Unused funds from federal financial contributions result in reserves under equity.

The contribution to accommodation is equal to the accommodation expense, which is equal in amount to an imputed rent for the buildings owned by the Federal Government and used by the institutions of the ETH Domain. Accommodation expense is reported within other operating expenses.

Tuition fees and other utilisation fees
Revenue from tuition fees and other utilisation fees is classified as an exchange transaction (IPSAS 9). As a rule, revenue is accounted for on an accrual basis when the goods are delivered or the services rendered.

Research contributions, mandates and scientific services
Project-related contributions are given to the institutions of the ETH Domain by various donors with the aim of promoting teaching and research. Project financing primarily relates to multi-year projects. Depending on the nature of the contributions, they are classified as either an exchange or a non-exchange transaction.

Donations and bequests
Revenue from donations and bequests is classified as a non-exchange transaction (IPSAS 23). Such grants where there is no conditional repayment risk are usually recognised as revenue in full when the agreement is signed.

Donations also include goods and services in-kind, which are distinguished as follows:
- **Goods In-kind** are recognised as assets in accordance with the applicable provisions when the agreement is signed.
- **Donated rights** to use assets in the sense of an operating lease are recognised as revenue and expense. Donated rights to use assets in the sense of a finance lease are measured at their fair value at inception of the agreement, if this is known, and depreciated over their useful life. If a performance obligation exists, it is stated as a liability and revenue recognised annually according to the services received. If there is no performance obligation, revenue is recognised upon recognition of the asset as a whole.
- **Services In-kind** received are not recognised but are instead disclosed and commented upon in the Notes if they are material.

Due to the high number and the difficulty in elicitation, separability and measurement of rights of use and services in kind within research agreements, these are not recognised. There is only a general description of the research activity in the Notes section.

Other revenue
Among other items, other revenue includes other service revenue and real estate revenue. This revenue is classified as an exchange transaction (IPSAS 9). As a rule, revenue is accounted for on an accrual basis when the goods are delivered or the services rendered.

Cash and cash equivalents
Cash and cash equivalents comprise cash-in-hand, demand and term deposits with financial institutions and funds invested with the Federal Government if their total term or the remaining term to maturity at the time of acquisition is less than 90 days. Cash and cash equivalents are measured at their nominal amount.

Receivables
Receivables from exchange (from goods and services) and non-exchange transactions are presented separately in the balance sheet.

In the case of receivables from non-exchange transactions (IPSAS 23), such as on SNSF and EU projects and from other donors, it is probable that there will be an inflow of funds in relation to the total contractual project volume. Therefore, the total amount of the project is usually recognised as a receivable at inception of the agreement if the fair value can be measured reliably. If the recognition criteria cannot be met, information is disclosed under contingent assets.

Non-current receivables of over CHF 10m are stated at amortised cost using the effective interest method. Current receivables are stated at cost.

Value adjustments are recognised on receivables on the basis of experience and a case-by-case assessment.

Inventories

Inventories are measured at the lower of cost and net realisable value. Cost is calculated using the weighted average cost method. Appropriate value adjustments are recognised for slow-moving inventories.

Property, plant and equipment

Items of property, plant and equipment are stated at cost less accumulated depreciation. They are depreciated over their estimated useful life using the straight-line method. The estimated useful lives are as follows:

Table 6: Useful life of the asset categories

Asset category	Useful life ETH Zurich / EPFL	Useful life Research Institutes
Immovable assets		
Property	unrestricted	unrestricted
Leasehold improvements < = CHF 1 million	10 years	10 years
Leasehold improvements > CHF 1 million	according to components[1]	according to components[1]
Buildings and structures	according to components[2]	according to components[2]
Biotopes and geotopes	unrestricted	unrestricted
Movable assets		
Machinery, equipment, tools, devices	5 years	5–10 years
Passenger vehicles, delivery vehicles, trucks, aircraft, ships, etc.	5 years	4–7 years
Furnishings	5 years	5–10 years
IT and communication	3 years	3–7 years
Large scale research plants and equipment	–	10–40 years

1 In the case of items of property, plant and equipment with a value of CHF 1 million or above, it is checked whether components (with a value that is significant in relation to the total value) need to be recognised and depreciated separately because they have a different useful life (components approach).

2 Useful life depends on the type of building, its purpose and the fabric of the building (20–100 years). Assets under construction are not depreciated.

Capitalised leasehold improvements and installations in leased premises are depreciated over the estimated useful life or over the term of the lease if shorter.

In the event of additions to property, plant and equipment, checks are made as to whether components with a value that is significant in relation to the total value need to be recognised and depreciated separately because they have a different useful life (components approach).

Investments that have future economic benefits or are of public interest over several years and can be measured reliably are recognised as assets and depreciated over the estimated useful life.

The residual value of property, plant and equipment that is scrapped or sold is derecognised at the time of the asset's physical disposal. The gains or losses resulting from the derecognition of an item of property, plant and equipment are recognised as operating revenue or operating expenses.

Movable cultural items and works of art are not recognised as assets. An inventory of these items is kept.

Intangible assets

Intangible assets are recognised at cost. Standard software is amortised over three years using the straight-line method, with the amortisation charges recognised in surplus or deficit. Other intangible assets with an amortisation period required to be determined individually are amortised over their estimated useful life using the straight-line method.

Impairments (property, plant and equipment and intangible assets)

Property, plant and equipment and intangible assets are reviewed annually for indications of impairment. If specific indications are identified, an impairment test is performed. If the carrying amount permanently exceeds the value in use or net realisable value, an impairment is recognised in surplus or deficit in the amount of the difference. If the main purpose of an investment is to generate a commercial return, the impairment is calculated using IPSAS 26 (Impairment of cash-generating assets). For all other investments, any impairment is calculated in accordance with the provisions of IPSAS 21 (Impairment of non-cash-generating assets). The main criteria for the judgement are the original motives behind the respective investments and the significance of the planned cash inflows.

Leases

Leases for real estate, equipment, other movable assets and vehicles where the ETH Domain substantially assumes all the risks and rewards incidental to ownership are treated as finance leases. At inception of the lease, the assets and liabilities under a finance lease are recognised at the fair value of the leased property or, if lower, the present value of the minimum lease payments. Each lease payment is apportioned between the reduction of the outstanding liability and the finance charge. The reduction is deducted from the recognised lease liability. The depreciation of the leased goods occurs over whichever is the shorter of the useful life or the lease term, if the transfer of ownership is not certain by the end of the lease term

Other leases where the ETH Domain acts as the lessee or lessor are recognised as operating leases. They are not carried in the balance sheet, but instead recognised as an expense in the statement of financial performance on an accrual basis.

Long-term leases of real estate are assessed separately depending on whether they are for plots of land or buildings.

Financial assets and loans

Financial assets are recognised at fair value if they are acquired with the intention of generating a profit from short-term fluctuations in price or if they are designated as financial assets at fair value (e.g. investments held without significant influence). Changes in value are recognised in surplus or deficit.

Other non-current financial assets that are held for an indefinite period and may be sold at any time for liquidity reasons or in response to changes in market conditions are classified as available for sale and stated at fair value or at cost if the fair value cannot be determined reliably. Unrealised gains and losses are recognised in equity and only transferred to surplus or deficit when the financial asset is sold or an impairment occurs. For instance, investments where there is neither control nor significant influence are recognised as available for sale.

Originated loans and fixed deposits are stated either at amortised cost (nominal value of less than CHF 10m, and current loans and fixed deposits of over CHF 10m) or at amortised cost using the effective interest method (non-current loans and fixed deposits of over CHF 10m). The effective interest method allocates the difference between the acquisition cost and the repayment amount (premium / discount) over the term of the asset, using the net present value method. Impairment losses are recognised based on a case-by-case assessment.

Derivative financial instruments are used primarily for hedging or as a strategic position. Without exception, they are measured at fair value. Changes in value are usually recognised in surplus or deficit.

Investment property

Investment property is only reported separately if it is material. Otherwise, it is recognised in the balance sheet as property, plant and equipment and disclosed accordingly.

Co-financing

Co-financing is third-party funding acquired by the ETH Domain that is used to finance construction projects in property owned by the Federal Government.

Co-financing is measured based on the valuation of the underlying property, which the Federal Government recognises at cost less accumulated depreciation. A property's ongoing depreciation reduces the value of the co-financing to the same degree as the underlying property. Co-financing is reported at the same amounts on both the assets and the equity and liabilities side (equity) of the balance sheet.

Current liabilities

Current liabilities are usually recognised on receipt of the invoice. This item also includes current accounts with third parties (including social insurance institutions). Current liabilities are measured at their nominal amount.

Financial liabilities

Financial liabilities include monetary liabilities resulting from financing activities as well as negative replacement values from derivative financial instruments. Monetary liabilities are usually interest-bearing. Liabilities that are due for repayment within twelve months of the reporting date are current. They are generally measured at amortised cost. Derivative financial instruments are measured at their fair value.

Provisions

Provisions are recognised when a past event gives rise to a present obligation, an outflow of resources is probable and the amount can be estimated reliably.

Net defined benefit liabilities

Net defined benefit liabilities presented in the balance sheet are measured in accordance with IPSAS 39. They correspond to the present value of the defined benefit obligations (DBO), less the fair value of the plan assets. A description of the pension scheme and the insured persons of the ETH Domain can be found in Note 28 Net defined benefit liabilities.

The defined benefit obligations and the service costs are determined annually by external experts using the actuarial valuation method Projected Unit Credit-method. The calculation is made based on information about the beneficiaries (salary, vested benefits, etc.) and using both demographic (retirement rates, disability rates, mortality rates, etc.) and financial (salary or pension trends, returns, etc.) assumptions. The amounts calculated are discounted to the valuation date by applying a discount rate. Changes in estimates of economic conditions can significantly affect defined benefit obligations.

The defined benefit obligations were measured based on the current membership base of the ETH Domain's pension scheme as of 31 October 2018, using actuarial assumptions as of 31 December 2018 (e. g. BVG 2015 actuarial tables), and the plan provisions of the ETH Domain pension scheme. The results were then adjusted using estimated pro rata cash flows as of 31 December 2018. The fair value of the plan assets is used including estimated performance as of 31 December 2018.

Current service cost, past service cost resulting from plan amendments, gains and losses on settlement, administrative costs and interest on the net defined benefit liabilities are presented in the statement of financial performance within personnel expenses.

Plan amendments and settlements are recognised immediately in surplus or deficit in the period in which they occur provided they result in vested benefits.

Actuarial and investment gains and losses on defined benefit plans are recognised directly in equity in the reporting period in which they occur.

Dedicated third-party funds

Liabilities from dedicated projects that arise from non-exchange transactions (IPSAS 23) are presented in the balance sheet as dedicated third-party funds. They are allocated solely to non-current liabilities because the projects usually last for several years and the current portion of the liability cannot be determined in most cases due to the nature of the projects.

They are measured based on the outstanding performance obligations at the reporting date, which are calculated from the total contractual project volume less services performed up to the reporting date.

Equity

Net assets / equity is the residual interest in the assets of an entity after deducting all its liabilities. In the ETH Domain, equity is structured as follows:

Valuation reserves (recognition in equity):

- **Revaluation reserves for available-for-sale financial assets** recognised at fair value. Fair value changes are recognised in equity until the financial assets are sold.
- **Revaluation reserves for net defined benefit liabilities**: Actuarial and investment gains and losses on defined benefit obligations or plan assets are recognised in equity.
- **Valuation reserves from hedging transactions**: If hedge accounting is used, positive and negative replacement values from hedging transactions are recognised in equity and released to surplus or deficit when the underlying hedged transaction affects surplus or deficit.

Dedicated reserves

- Donations and bequests: This item includes unused funds from donations and bequests that have certain conditions attached, but are not required to be classified as liabilities.
- Teaching and research reserves: (electoral / appointment commitments, teaching and research projects): This item indicates that various internal and external commitments exist and appropriate reserves were recognised to cover them. These mostly comprise "election commitments", i.e. funds granted to newly elected professors under contractual arrangements for the purpose of setting up their professorship.
- Infrastructure and administration reserves (value fluctuations, construction projects): These include reserves for fluctuations in the value of the securities portfolio (risk capital) and for delayed construction projects.

Dedicated reserves must (with the exception of election / appointment commitments) have been generated. They are recognised and released within the equity.

Free reserves

Unused funds for which there are no contractual or internal provisions in accordance with IPSASs are presented as free reserves. They are not restricted in terms of time or purpose.

Reserves from associated entities

This item comprises reserves from the inclusion of the share of equity of investments in associated entities that are accounted for using the equity method. These reserves cannot be accessed directly and they are dedicated.

Accumulated surplus / deficit

The accumulated surplus or deficit shows the cumulative results at the reporting date. It comprises the surplus / deficit carried forward, the surplus / deficit for the period and increases or decreases in reserves.

The surplus / deficit carried forward is accumulated annually as part of the appropriation of surplus / deficit. The surplus / deficit for the period includes the portion of the result not yet distributed. If currency translation differences arise on foreign, fully consolidated entities on consolidation, they are recognised in equity, without affecting surplus or deficit.

Contingent liabilities and contingent assets

A contingent liability is either a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of an uncertain future event not wholly within the control of the entity; or a present obligation that arises from past events but is not recognised because of its low probability of occurrence (less than 50%) or because the obligation cannot be measured reliably, as a result of which the criteria for recognising a provision are not met.

A contingent asset is a possible asset that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of an uncertain future event not wholly within the control of the entity.

Financial commitments

Financial commitments are presented in the Notes if they are based on events prior to the reporting date, they will definitely lead to obligations to third parties after the reporting date and their amount can be measured reliably.

Cash flow statement

The cash flow statement shows the cash flows from operating activities, investing activities and financing activities. It is presented using the indirect method, i.e. cash flows from operating activities are based on the surplus or deficit for the period, adjusted for the effects of transactions of a non-cash nature. “Total cash flow” represents the change in the balance sheet item “Cash and cash equivalents”.

Segment reporting

The two sub-consolidated Federal Institutes of Technology, the four research institutes and the ETH Board are defined as segments in the ETH Domain. The segments reflect the operational independence of the institutions. The ETH Board includes eliminations and unallocated transactions. The inter-segment transfers are based on the cost structure.

4 Estimation uncertainty and management judgements

Estimation uncertainty in the application of accounting policies

Preparation of the annual consolidated financial statements is dependent on assumptions and estimates in connection with accounting principles, where management has a certain margin of discretion. Although these estimates are based on management's best knowledge, actual results may differ from those estimates.

This applies to the following items in particular:

Useful life and impairment of plant, property and equipment

The useful life of plant, property and equipment is defined and periodically reviewed bearing in mind the current technical environment and past experience. A change in the estimate may affect the future amount of the depreciation charges and the carrying amount.

Estimates that could lead to a reduction in the carrying amount (impairment) are likewise made in the course of the regular impairment test.

Provisions

These involve a higher degree of estimation than other balance sheet items and therefore may lead to a higher or lower cash outflow depending on the actual outcome of a past event.

Net defined benefit liabilities

The net defined benefit liabilities are calculated based on long-term actuarial assumptions for the defined benefit obligations and for the expected returns on plan assets. These assumptions may differ from actual future developments. The discount rate and future salary trends are key components in the actuarial valuation.

Recognition of donations

The ETH Domain regularly receives donations in the form of assets. Under IPSASs, donations must be recognised initially at fair value. The determination of that fair value requires management to make estimates.

Discount rates

Uniform discount rates have been defined for use in discounting non-current receivables, liabilities and provisions. They are based on a risk-free rate and a premium for credit risk. However, because of the current interest rate situation these discounting rates are subject to some uncertainties.

Management judgements in the application of accounting policies

Finance lease

When accounting for two long-term lease contracts, EPFL applied the following significant management judgements in 2017, which remain unchanged:

- Both leases are classified as finance leases because the main risks and rewards incidental to ownership have been transferred to EPFL.
- Termination of the lease after 30 years is currently seen as the most likely scenario. This hypothesis does not impose any formal obligation upon the EPFL to terminate the leases after thirty years and does not determine who is to finance the buy-back or who will lease the objects following termination.

Provisions

Provisions set aside at the PSI for dismantling the accelerator facilities and the disposal of the radioactive waste amounting to CHF 631m (see Note 27 Provisions) are based on the discussion paper entitled "Financing the disposal of radioactive waste within the responsibility of the Federal Government", as well as the decision-making basis adopted by the Swiss Federal Council in April 2015.

As commissioned by the Federal Council a new estimate of the Confederation's and the ETH Domain's disposal costs was prepared by the end of 2018 on the basis of the new cost study for deep geological disposal issued by Swissnuclear in 2016 (KS16). It was duly noted by the Federal Council on 30 November 2018. Within this context, the allocation key for the costs to the affected entities was also redefined. Consequently, the corresponding provisions at the PSI have to be increased by CHF 205m in the reporting period. This amount corresponds to the current estimate of the total costs to be expected up to and including storage in the deep geological repository at today's value.

No inflation rate is taken into account, nor is a simultaneous discounting of the provisions being considered, as this would not allow a more reliable statement to be made. Both inflation and the expected cash outflow depend to a large extent on when final storage takes place.

The reassessment of the total cost for the radioactive waste of the Confederation is updated every five years.

5 Comparison with the budget

Table 7: Statement of financial performance for the ETH Domain (consolidated) – Comparison between the 2018 statement and the final 2018 budget

CHF millions	Budget 2018	Budget 2018	Budget 2018	Actual 2018	Changes to B2018 Final absolute
	Approved	Reconciliation of federal financial contribution / IPSAS effects	Final		
Federal financial contribution	2,332	24	2,357	2,357	–
Federal contribution to accommodation	269	–	269	269	–
Total federal contribution	**2,601**	**24**	**2,625**	**2,625**	**–**
Tuition fees and other utilisation fees	**37**	**–**	**37**	**41**	**3**
Swiss National Science Foundation (SNSF)	252	–	252	255	2
Swiss Innovation Agency (Innosuisse)	60	–	60	56	–4
Special federal funding of applied research	75	–	75	81	6
EU Framework Programmes for Research and Innovation (FP)	144	–	144	142	–3
Industry-oriented research (private sector)	129	–	129	139	9
Other project-oriented third-party funding (incl. cantons, municipalities, international organisations)	71	–	71	84	12
Research contributions, mandates and scientific services	**732**	**–**	**732**	**755**	**23**
Donations and bequests	**76**	**–**	**76**	**155**	**79**
Other revenue	**114**	**–**	**114**	**138**	**24**
Operating revenue	**3,561**	**24**	**3,585**	**3,714**	**129**
Personnel expenses	2,216	90	2,306	2,333	27
Other operating expenses	979	–	979	990	11
Depreciation	215	–	215	266	50
Transfer expenses	155	24	179	43	–136
Operating expenses	**3,564**	**114**	**3,679**	**3,631**	**–48**
OPERATING RESULT	**–4**	**–90**	**–94**	**83**	**177**
NET FINANCE INCOME / EXPENSE	**7**	**–**	**7**	**–22**	**–29**
Share of surplus / deficit of associated entities and joint ventures	–	–	–	–11	–11
SURPLUS (+) OR DEFICIT (–)	**3**	**–90**	**–87**	**50**	**137**

Table 8: Reallocation of funds ETH Domain Budget 2018

CHF millions	ETH-Board	ETH Zurich	EPFL	PSI	WSL	Empa	Eawag	Total Credit
Status as at 01.01.2018 (Federal Resolution I a as of 14.12.2017)	**123.7**	**1,116.0**	**594.5**	**285.6**	**54.7**	**99.4**	**58.5**	**2,332.4**
Changes:								
Credit reallocation: flexibility								
(Credit reallocation debited to Credit A202.0134 constructions of ETH Domain in acc. with FHV Art. 20 para. 5)	–	12.5	9.0	1.5	1.0	0.8	−0.5	24.2
Assignments by ETH Board:								
Strategic Proposals Teaching and Research	−13.8	9.2	3.6	1.0	–	–	–	–
Credit allocation ETH Board: increased Base Budget	−52.9	27.9	13.8	6.3	1.3	2.3	1.4	–
Credit reallocations within Strategic Focus Areas								**–**
Personalized Health and Related Technologies	−14.0	6.1	6.5	1.3	–	0.1	–	–
Advanced Manufacturing	−2.6	2.0	1.7	0.8		−2.0	–	–
Data Science	−7.3	3.3	3.8	0.1	0.0	0.1	0.1	–
Various credit reallocations	**–**	**–**	**0.0**	**0.1**	**–**	**0.3**	**−0.4**	**–**
Status as of 31.12.2018	**33.2**	**1,177.0**	**632.9**	**296.6**	**57.0**	**101.0**	**59.0**	**2,356.7**

The consolidated surplus or deficit of the proposed budget for 2018, according to the ETH Board's 2018 budget report for the ETH Domain (end of July 2017) amounted to CHF 3m. In contrast to the 2018 budget report, the approved budget 2018 contains the increase in the federal financial contribution by +CHF 53 million to CHF 2,332 million authorised by Federal Decree Ia on the 2018 budget (Volume 3 of the Federal Decrees).

The final budget for 2018 shows an adjustment compared to the approved budget for 2018, which led to the budgeted annual deficit of -CHF 87m for 2018. This relates to the recognition of net pension costs of CHF 90m under personnel expenses in accordance with IPSAS 39.

By contrast, the following adjustments had no effect on the budgeted annual deficit for 2018, as revenue and expenses also increased to the same extent:

- Reallocation of funds within the ETH Domain.
- Budget-neutral credit reallocation (Art. 4 (4) Federal Decree Ia on the 2018 budget) of +CHF 24m (2017: +CHF 25m) using the flexibility between the two credits, within the expenditure ceiling 2017–2020 of the ETH Domain and at the expense of the investment credit for buildings (credit A202.0134, VE 620 BBL).

In the budgeting process, those entities controlled or significantly influenced by ETH Zurich, EPFL and the PSI are not included in the consolidated financial statements. This leads to one of the discrepancies between the annual statement and the budget for 2018.

The other figures in the 2018 budget reflect the approved budget in accordance with the 2018 Budget Report issued by the ETH Board for the ETH Domain.

6 Segment reporting

In the ETH Domain, the two sub-consolidated ETH Institutes of Technology and the four research institutes are defined as segments. The ETH Board also includes the consolidation entries.

Statement of financial performance by segments

Table 9: Statement of financial performance 2018 by segments

	2018							
CHF millions	ETH Zurich	EPFL	PSI	WSL	Empa	Eawag	ETH-Board*	ETH Domain
Federal financial contribution	1,177	633	297	57	101	59	33	2,357
Federal contribution to accommodation	149	71	24	4	16	4	–	269
Total federal contribution	**1,326**	**704**	**320**	**61**	**117**	**63**	**33**	**2,625**
Tuition fees and other utilisation fees	**24**	**13**	**3**	**–**	**–**	**–**	**–**	**41**
Swiss National Science Foundation (SNSF)	124	95	16	5	8	6	–	255
Swiss Innovation Agency (Innosuisse)	22	18	4	–	10	–	–	56
Special federal funding of applied research	26	12	13	16	9	5	–1	81
EU Framework Programmes for Research and Innovation (FP)	64	59	10	1	7	2	–	142
Industry-oriented research (private sector)	60	42	21	1	16	1	–1	139
Other project-oriented third-party funding (incl. cantons, municipalities, international organisations)	42	29	8	2	2	3	–4	84
Research contributions, mandates and scientific services	**337**	**256**	**72**	**26**	**52**	**17**	**–5**	**755**
Donations and bequests	**136**	**19**	**1**	**–**	**–**	**–**	**–1**	**155**
Other revenue	**44**	**60**	**35**	**3**	**8**	**1**	**–13**	**138**
Operating revenue	**1,868**	**1,052**	**431**	**90**	**178**	**82**	**13**	**3,714**
Personnel expenses	1,133	673	272	66	119	54	16	2,333
Other operating expenses	536	278	99	19	46	20	–8	990
Depreciation	104	76	49	2	12	4	19	266
Transfer expenses	23	20	2	1	–	–	–3	43
Operating expenses	**1,795**	**1,048**	**423**	**87**	**178**	**78**	**23**	**3,631**
OPERATING RESULT	**72**	**5**	**8**	**3**	**–**	**4**	**–10**	**83**
NET FINANCE INCOME / EXPENSE	**–9**	**–13**	**–**	**–**	**–**	**–**	**–**	**–22**
Share of surplus / deficit of associated entities and joint ventures	–11	–1	1	–	–	–	–	–11
SURPLUS (+) OR DEFICIT (–)	**53**	**–9**	**9**	**3**	**–**	**4**	**–10**	**50**

* including consolidation entries

Table 10: Statement of financial performance 2017 by segments

	2017							
CHF millions	ETH Zurich	EPFL	PSI	WSL	Empa	Eawag	ETH-Board*	ETH Domain
Federal financial contribution	1,201	627	282	58	112	60	38	2,378
Federal contribution to accommodation	166	68	20	4	16	4	–	278
Total federal contribution	**1,367**	**696**	**302**	**62**	**128**	**64**	**38**	**2,656**
Tuition fees and other utilisation fees	**24**	**12**	**2**	**–**	**1**	**–**	**–**	**39**
Swiss National Science Foundation (SNSF)	132	88	21	5	9	6	–	260
Swiss Innovation Agency (Innosuisse)	23	20	6	–	12	–	–	63
Special federal funding of applied research	23	15	9	14	13	5	–2	78
EU Framework Programmes for Research and Innovation (FP)	64	59	7	1	6	2	–	139
Industry-oriented research (private sector)	49	44	21	–	16	1	–1	129
Other project-oriented third-party funding (incl. cantons, municipalities, international organisations)	35	20	14	3	1	3	–3	74
Research contributions, mandates and scientific services	**326**	**247**	**78**	**23**	**57**	**18**	**–5**	**743**
Donations and bequests	**83**	**37**	**1**	**1**	**1**	**–**	**–2**	**120**
Other revenue	**51**	**59**	**31**	**3**	**6**	**–**	**–12**	**140**
Operating revenue	**1,850**	**1,051**	**413**	**88**	**193**	**83**	**19**	**3,698**
Personnel expenses	1,115	672	270	63	116	53	16	2,303
Other operating expenses	515	271	97	19	45	20	–9	958
Depreciation	98	66	33	1	11	3	–	212
Transfer expenses	21	21	–	1	1	–	–3	42
Operating expenses	**1,748**	**1,029**	**399**	**84**	**173**	**76**	**4**	**3,515**
OPERATING RESULT	**102**	**22**	**14**	**4**	**19**	**6**	**15**	**182**
NET FINANCE INCOME / EXPENSE	**21**	**–8**	**–**	**–**	**–**	**–**	**–**	**13**
Share of surplus / deficit of associated entities and joint ventures	15	–2	1	–	–	–	–	14
SURPLUS (+) OR DEFICIT (–)	**137**	**12**	**15**	**4**	**20**	**6**	**15**	**209**

* including consolidation entries

Balance sheet by segments

Table 11: Balance sheet as of 31 December 2018 by segments

	31.12.2018							
CHF millions	ETH Zurich	EPFL	PSI	WSL	Empa	Eawag	ETH-Board*	ETH Domain
CURRENT ASSETS								
Cash and cash equivalents	183	315	81	51	96	64	62	852
Current receivables from non-exchange transactions	241	217	42	21	35	11	−8	558
Current receivables from exchange transactions	18	13	7	1	3	1	−7	36
Current financial assets and loans	1,011	281	21	31	40	25	–	1,409
Inventories	5	2	2	–	–	–	–	10
Prepaid expenses and accrued income	27	5	11	–	1	3	–	48
Total current assets	**1,485**	**833**	**164**	**104**	**176**	**103**	**47**	**2,913**
NON-CURRENT ASSETS								
Property, plant and equipment	441	427	1,081	10	61	22	−19	2,023
Intangible assets	5	62	–	–	–	–	–	67
Non-current receivables from non-exchange transactions	627	246	31	33	26	6	–	970
Non-current receivables from exchange transactions	–	–	–	–	–	–	–	–
Investments in associated entities and joint ventures	93	37	5	–	–	–	–	135
Non-current financial assets and loans	4	7	2	–	–	–	19	32
Co-financing	48	72	–	–	7	–	–	128
Total non-current assets	**1,218**	**851**	**1,118**	**43**	**95**	**29**	**–**	**3,354**
TOTAL ASSETS	**2,703**	**1,685**	**1,282**	**147**	**271**	**132**	**47**	**6,267**
LIABILITIES								
Current liabilities	60	104	17	5	5	3	−15	179
Current financial liabilities	–	15	1	–	–	–	–	16
Accrued expenses and deferred income	75	41	17	2	5	2	–	142
Short-term provisions	49	31	15	4	6	3	1	109
Short-term liabilities	**185**	**191**	**49**	**11**	**17**	**7**	**−13**	**446**
Dedicated third-party funds	726	539	89	68	68	21	–	1,510
Non-current financial liabilities	19	342	–	–	–	–	–	361
Net defined benefit liabilities	1,056	579	315	75	143	52	19	2,239
Long-term provisions	28	17	650	3	5	2	–	705
Long-term liabilities	**1,829**	**1,476**	**1,054**	**145**	**216**	**75**	**19**	**4,815**
Total liabilities	**2,014**	**1,668**	**1,103**	**156**	**233**	**82**	**6**	**5,261**
EQUITY								
Valuation reserves	−650	−330	−206	−43	−92	−31	−13	−1,364
Dedicated reserves	798	229	26	11	36	19	4	1,123
Free reserves	483	185	45	53	86	71	44	967
Co-financing	48	72	–	–	7	–	–	128
Reserves from associated entities	93	37	5	–	–	–	–	135
Accumulated surplus (+) / deficit (–)	−84	−176	310	−30	1	−9	6	17
Total equity	**689**	**17**	**179**	**−9**	**38**	**50**	**41**	**1,006**
TOTAL LIABILITIES AND EQUITY	**2,703**	**1,685**	**1,282**	**147**	**271**	**132**	**47**	**6,267**

* including consolidation entries

Table 12: Balance sheet as of 31 December 2017 by segments

	31.12.2017							
CHF millions	ETH Zurich	EPFL	PSI	WSL	Empa	Eawag	ETH-Board*	ETH Domain
CURRENT ASSETS								
Cash and cash equivalents	192	218	68	46	93	57	60	733
Current receivables from non-exchange transactions	243	219	36	22	34	11	−9	555
Current receivables from exchange transactions	14	13	8	1	4	1	−3	38
Current financial assets and loans	991	283	21	29	40	25	–	1,389
Inventories	6	2	2	–	–	–	–	10
Prepaid expenses and accrued income	24	7	8	1	1	4	–	45
Total current assets	**1,470**	**743**	**143**	**98**	**172**	**97**	**48**	**2,771**
NON-CURRENT ASSETS								
Property, plant and equipment	447	446	877	10	60	24	–	1,863
Intangible assets	3	64	1	–	–	–	–	68
Non-current receivables from non-exchange transactions	492	251	38	17	33	7	–	838
Non-current receivables from exchange transactions	–	–	–	–	–	–	–	–
Investments in associated entities and joint ventures	104	38	5	–	–	–	–	147
Non-current financial assets and loans	3	7	4	–	1	–	11	26
Co-financing	50	67	–	–	7	–	–	125
Total non-current assets	**1,099**	**872**	**925**	**27**	**101**	**31**	**11**	**3,066**
TOTAL ASSETS	**2,569**	**1,615**	**1,068**	**125**	**273**	**128**	**59**	**5,837**
LIABILITIES								
Current liabilities	81	69	22	3	5	3	−10	172
Current financial liabilities	–	14	1	–	–	–	–	16
Accrued expenses and deferred income	76	32	16	3	6	1	–	134
Short-term provisions	44	30	15	4	6	3	1	103
Short-term liabilities	**201**	**145**	**55**	**10**	**17**	**7**	**−10**	**425**
Dedicated third-party funds	663	518	95	52	76	23	–	1,428
Non-current financial liabilities	19	353	1	–	–	–	–	374
Net defined benefit liabilities	893	490	267	63	121	45	15	1,894
Long-term provisions	34	22	440	3	5	2	–	505
Long-term liabilities	**1,609**	**1,384**	**803**	**118**	**201**	**70**	**16**	**4,201**
Total liabilities	**1,810**	**1,529**	**858**	**129**	**218**	**77**	**6**	**4,626**
EQUITY								
Valuation reserves	−527	−270	−166	−35	−74	−26	−10	−1,109
Dedicated reserves	623	233	11	11	39	15	16	949
Free reserves	540	160	30	46	78	70	41	965
Co-financing	50	67	–	–	7	–	–	125
Reserves from associated entities	104	38	5	–	–	–	–	147
Accumulated surplus (+) / deficit (−)	−31	−142	330	−25	5	−9	7	135
Total equity	**759**	**86**	**210**	**−4**	**56**	**51**	**53**	**1,212**
TOTAL LIABILITIES AND EQUITY	**2,569**	**1,615**	**1,068**	**125**	**273**	**128**	**59**	**5,837**

* including consolidation entries

Cash flow statement by segments

Table 13: Cash flow statement 2018 by segments

	2018							
CHF millions	ETH Zurich	EPFL	PSI	WSL	Empa	Eawag	ETH-Board*	ETH Domain
CASH FLOWS FROM OPERATING ACTIVITIES								
Surplus (+) or deficit (–)	**53**	**–9**	**9**	**3**	**–**	**4**	**–10**	**50**
Depreciation	104	76	49	2	12	4	19	266
Share of surplus / deficit of associated entities and joint ventures	11	1	–1	–	–	–	–	11
Net finance income / expense (non-cash)	11	3	–	–	–	–	–	13
Increase / decrease in net working capital	–25	48	–12	2	–1	–	–	12
Increase / decrease in net defined benefit liabilities	41	28	11	3	5	2	1	91
Increase / decrease in provisions	–1	–4	209	–	–	–	–	205
Increase / decrease in non-current receivables	–131	–13	7	–16	7	1	–	–146
Increase / decrease in dedicated third-party funds	63	39	–6	15	–8	–2	–	101
Reclassification and other (non-cash) income	1	–8	–209	–1	–	–	–	–216
Cash flows from operating activities	**127**	**161**	**58**	**8**	**16**	**9**	**10**	**388**
CASH FLOWS FROM INVESTING ACTIVITIES								
Investments								
Purchase of property, plant and equipment	–99	–49	–47	–1	–12	–2	–	–211
Purchase of intangible assets	–3	–	–	–	–	–	–	–3
Increase in co-financing	–	–7	–	–	–	–	–	–7
Increase in loans	–1	–	–	–	–	–	–	–1
Increase in current and non-current financial assets	–48	–1	–	–2	–	–	–8	–58
Total investments	**–151**	**–57**	**–47**	**–3**	**–13**	**–2**	**–8**	**–281**
Divestments								
Disposal of property, plant and equipment	–	–	3	1	–	–	–	4
Disposal of intangible assets	–	–	–	–	–	–	–	–
Decrease in co-financing	–	–	–	–	–	–	–	–
Decrease in loans	–	–	–	–	–	–	–	–
Decrease in current and non-current financial assets	15	–	–	–	–	–	1	16
Total divestments	**15**	**1**	**3**	**1**	**–**	**–**	**1**	**20**
Dividends received from associated entities and Joint Ventures	–	–	1	–	–	–	–	1
Cash flows from investing activities	**–135**	**–56**	**–44**	**–3**	**–13**	**–2**	**–8**	**–260**
CASH FLOWS FROM FINANCING ACTIVITIES								
Increase in short-term and long-term financial liabilities	–	1	–	–	–	–	–	1
Decrease in short-term and long-term financial liabilities	–	–8	–1	–	–	–	–	–10

Continuation of Table 13: Cash flow statement 2018 by segments

CHF millions	ETH Zurich	EPFL	PSI	WSL	Empa	Eawag	ETH-Board*	ETH Domain
	2018							
Cash flows from financing activities	**–**	**–8**	**–1**	**–**	**–**	**–**	**–**	**–9**
Total cash flow	**–9**	**97**	**13**	**5**	**3**	**7**	**2**	**118**
Cash and cash equivalents at the beginning of the period	**192**	**218**	**68**	**46**	**93**	**57**	**60**	**733**
Total cash flow	**–9**	**97**	**13**	**5**	**3**	**7**	**2**	**118**
Cash and cash equivalents at the end of the period	**183**	**315**	**81**	**51**	**96**	**64**	**62**	**852**
Net effect of currency translation on cash and cash equivalents	–	–	–	–	–	–	–	–
Contained in the cash flows from operating activities are:								
Dividends received	3	–	–	–	–	–	–	3
Interest received	2	1	–	–	–	–	–	2
Interest paid	–1	–8	–	–	–	–	–	–9

* including consolidation entries

Table 14: Cash flow statement 2017 by segments

	2017							
CHF millions	ETH Zurich	EPFL	PSI	WSL	Empa	Eawag	ETH-Board*	ETH Domain
CASH FLOWS FROM OPERATING ACTIVITIES								
Surplus (+) or deficit (–)	**137**	**12**	**15**	**4**	**20**	**6**	**15**	**209**
Depreciation	98	66	33	1	11	3	–	212
Share of surplus / deficit of associated entities and joint ventures	–15	2	–1	–	–	–	–	–14
Net finance income / expense (non-cash)	–16	–1	–	–	–	–	–	–17
Increase / decrease in net working capital	–6	–75	2	–	–3	4	–	–79
Increase / decrease in net defined benefit liabilities	45	31	12	3	5	3	–	99
Increase / decrease in provisions	6	7	5	–	–	–	–	17
Increase / decrease in non-current receivables	–55	–5	1	1	–13	–1	–	–71
Increase / decrease in dedicated third-party funds	13	18	–14	–	12	–1	–	28
Reclassification and other (non-cash) income	–1	6	2	–	5	–	–	11
Cash flows from operating activities	**205**	**61**	**54**	**10**	**37**	**14**	**15**	**397**
CASH FLOWS FROM INVESTING ACTIVITIES								
Investments								
Purchase of property, plant and equipment	–100	–54	–55	–3	–13	–4	1	–228
Purchase of intangible assets	–2	–1	–	–	–	–	–	–4
Increase in co-financing	–	–	–	–	–1	–	–	–1
Increase in loans	–	–	–	–	–	–	–	–
Increase in current and non-current financial assets	–98	–2	–1	–3	–	–	–5	–108
Total investments	**–201**	**–57**	**–56**	**–6**	**–13**	**–4**	**–4**	**–341**
Divestments								
Disposal of property, plant and equipment	1	1	1	–	–	–	–1	1
Disposal of intangible assets	–	–	–	–	–	–	–	–
Decrease in co-financing	–	5	–	–	–	–	–	5
Decrease in loans	–	–	–	–	–	–	–	–
Decrease in current and non-current financial assets	35	1	1	–	–	–	1	37
Total divestments	**35**	**7**	**1**	**–**	**–**	**–**	**–**	**43**
Dividends received from associated entities and Joint Ventures	–	–	1	–	–	–	–	1
Cash flows from investing activities	**–165**	**–51**	**–54**	**–6**	**–13**	**–4**	**–4**	**–297**
CASH FLOWS FROM FINANCING ACTIVITIES								
Increase in short-term and long-term financial liabilities	–	1	–	–	–	–	–	1
Decrease in short-term and long-term financial liabilities	–	–8	–1	–	–	–	–	–10

Continuation of Table 14: Cash flow statement 2017 by segments

	2017							
CHF millions	ETH Zurich	EPFL	PSI	WSL	Empa	Eawag	ETH-Board*	ETH Domain
Cash flows from financing activities	**–**	**–7**	**–1**	**–**	**–**	**–**	**–**	**–9**
Total cash flow	**40**	**3**	**–1**	**5**	**24**	**10**	**11**	**91**
Cash and cash equivalents at the beginning of the period	**151**	**215**	**69**	**41**	**70**	**47**	**49**	**642**
Total cash flow	**40**	**3**	**–1**	**5**	**24**	**10**	**11**	**91**
Cash and cash equivalents at the end of the period	**192**	**218**	**68**	**46**	**93**	**57**	**60**	**733**
Net effect of currency translation on cash and cash equivalents	–	–	–	–	–	–	–	–
Contained in the cash flows from operating activities are:								
Dividends received	2	–	–	–	–	–	–	2
Interest received	2	1	–	–	–	–	–	2
Interest paid	–1	–9	–	–	–	–	–	–10

* including consolidation entries

7 Total federal contribution

Federal financial contribution

Table 15: Federal financial contribution

CHF millions	2018	2017	Change absolute
Federal financial contribution	**2,357**	**2,378**	**–21**

The available funds from the approved expenditure ceiling of the ETH Domain for the years 2017–2020 are transacted via the two credit items, federal financial contribution and investment credit for buildings. The federal financial contribution credit is allocated to the Federal Department of Economic Affairs, Education and Research (EAER) (VE 701 GS EAER). The investment credit for buildings ETH Domain is allocated by the Federal Department of Finance (FDF) (VE 620 BBL).

In contrast to the investment credit for buildings ETH Domain (Confederation as parent), the federal financial contribution forms part of the consolidated financial statements of the ETH Domain.

The federal financial contribution was used for the strategic objectives set by the Swiss Federal Council in accordance with ERI Dispatch for 2017–2020 (FDC of 5 April 2017/25 April 2018) and amounted to CHF 2,357m in 2018. The decline on 2017 (– CHF 21m, –1%) is essentially due to the reallocation between the two credits within the total federal contribution from the expenditure ceiling, which was carried out as part of the 2018 budget process. See the section on the financing statement in the Annual Report, p.100 et seq.

The federal financial contribution allocated to the entities is comprised of the base budget, the performance-based award and strategic funding (incentive, and seed capital) for projects in teaching and research.

The base budget for 2018 amounted to CHF 2,194m (2017: CHF 2,216m). The performance-based award amounted to CHF 43m (2017: CHF 35m). The funds available for the strategic initiatives were as follows:

- The strategic focus areas in research: “Personalized Health and Related Technologies”, “Data Science” as well as “Advanced Manufacturing” in the amount of CHF 24m (2017: CHF 27m).
- The major research infrastructure of national and international importance in accordance with objective 3 of the strategic objectives (Notes on ERI Dispatch for 2017–2020):
  - CHF 23m for the “Sustained scientific user lab for simulation based science” at the CSCS in Lugano (ETH Zurich) (2017: CHF 23m).
  - CHF 23m for the “Blue Brain Project” at EPFL (2017: CHF 23m) which is the Swiss contribution to the European “Future and Emerging Technologies” (FET) flagship initiative Human Brain Project (HBP);
  - CHF 8m for the SwissFEL/ATHOS beamline at the PSI (2017: CHF 5m).
  - CHF 2m on the upgrade of the CMS detectors at CERN (2017: CHF 6m).
  - the contribution of CHF 3m to the Swiss Plasma Center (2017: CHF 3m).
- incentive funding and seed capital for strategic projects teaching and research, total of around CHF 20m (2017: CHF 19m).

The Federal Government is also financing the dismantling of the accelerator facilities and the disposal of radioactive waste at the PSI. According to the most up-to-date cost estimate by the Federal Government for 2018, the total costs shall amount to CHF 631m for the PSI (for activities up to and including deep geological disposal). The annual amount 2018 was CHF 8m (2017: CHF 5m) (see Note 27 Provisions).

The employer deposit transfer to support the funding ratio of the ETH Domain pension fund with PUBLICA is made for five years starting from 2015 (CHF 3.5m per annum). This funding is aligned to the funding ratio stipulated in Section 44 BVV 2, and is not related to the net defined benefit liabilities under IPSAS 39. There was also the provision for the change in pension fund basis (2018: CHF 5m; 2017: CHF 5m).

Federal contribution to accommodation

Table 16: Federal contribution to accommodation for the ETH Domain

CHF millions	2018	2017	Change absolute
Federal contribution to accommodation	**269**	**278**	**–10**

The federal contribution to accommodation is used to cover the expenses for the rental of state owned properties. The credit is not part of the credits of the expenditure ceiling of the ETH Domain. It affects financing, but not expenditures (no cash flow as a result of it). The calculations are based on the depreciation and capital costs for state-owned real estate.

The credit is considered as an expense in the EAER and as a revenue in the Federal Office for Buildings and Logistics (BBL).

The imputed interest rate for the return on average capital employed was 1.75% (2017: 2.00%). Depreciation increased compared to 2017, as the replacement value of the real estate owned by the Federal Government and used by the ETH Domain increased. The main usable space also increased. The value of the land remained unchanged.

Due to the lower interest rate, the accommodation contribution was down year-on-year compared to 2017, despite the increase in floor space.

8 Tuition fees and other utilisation fees

Table 17: Tuition fees and other utilisation fees

CHF millions	2018	2017	Change absolute
Tuition fees	31	30	–
Utilisation and administration fees (IPSAS 9)	10	8	2
Tuition fees and other utilisation fees	**41**	**39**	**2**

Tuition fees are regulated in the Ordinance on Fees in the Domain of Federal Institutes of Technology (SR 414.131.7 of 31 May 1995, as amended on 1 September 2018). The income is directly dependent on the development of numbers of students and doctoral students, as well as the level of the tuition fees. The number of students and doctoral students rose compared to 2017 (see Annual Report, Monitoring Table, p.82 et seq.). The tuition fee level remained unchanged compared to 2017 (No 1. Tuition fees, notes to the Ordinance on Fees).

The total tuition fees were unchanged on the previous year – around CHF 21m at ETH Zurich and CHF 9m at EPFL. The revenue from tuition fees for Bachelor's / Master's courses amount to CHF 24m (ETH Zurich: CHF 15m, EPFL CHF 9m). The rise of almost CHF 1m compared to 2017 is only related to the growth in student numbers.

Once again, tuition fees accounted for around 1% of the 2018 individual operating revenue of ETH Zurich and of EPFL.

The utilisation and administration fees especially include the enrolment and examination fees, as well as fees for continuing education programmes and courses or fees for the use of libraries. The total, i.e. CHF 10m, is above the previous year's figure of CHF 8m. The two Federal Institutes of Technology posted the largest share (2018: CHF 7m; 2017: CHF 5m). The PSI has also recognised revenue from fees (2018: CHF 3m; 2017: CHF 2m). Fees were collected for the PSI training centre, consisting of the reactor school, the school of radiation protection and the PSI academy.

9 Research contributions, mandates and scientific services

The increase in revenue from research contributions, mandates and scientific services was marked by a divergent trend of the individual revenue categories (+CHF 12m, +2% year-on-year). Revenue from the two federal funding agencies, the Swiss National Science Foundation (SNSF) and the Swiss Innovation Agency Innosuisse, declined. This process was overcompensated by the positive trend in higher research contributions from cooperation with the private sector and other project-oriented third-party funds. The total from federal funding of applied research and the revenue from the European Research Framework Programmes practically correspond to the high level from 2017.

Of the total revenue volume, CHF 613m or 81% was attributable to non-exchange transactions (IPSAS 23), generally research grants, and CHF 142m or 19% to exchange transactions (IPSAS 9), generally contract research and scientific services. The two shares vary slightly over the years.

The development in the individual categories is as follows: The revenue volume from the **Swiss National Science Foundation (SNSF)** of CHF 255m was slightly below the high volume of the previous year (2017: CHF 260m), partly due to new projects in the initial phase. As in the previous year, project progress was high. Over 85% of the revenue was once again allocated to the two Federal Institutes of Technology (ETH Zurich: CHF 124m; EPFL: CHF 95m).

Innosuisse finances and regulates, among other things, the operation of networked inter-university centres for energy research, i.e. Swiss Competence Centres for Energy Research (SCCER), as part of the action plan "Coordinated Energy Research Switzerland". The ETH Domain participates in projects of all eight SCCER programs. Revenue declined in all entities due to lower project volumes for new projects. The highest shares were once again recorded by ETH Zurich (2018: CHF 22m; 2017: CHF 23m), EPFL (2018: CHF 18m; 2017: CHF 20m) and Empa (2018: CHF 10m; 2017: CHF 12m).

Table 18: Research contributions, mandates and scientific services

CHF millions	2018	of which revenues (IPSAS 23)	of which revenues (IPSAS 9)	2017	of which revenues (IPSAS 23)	of which revenues (IPSAS 9)	Change absolute
Swiss National Science Foundation (SNSF)	255	255	–	260	260	–	–6
Swiss Innovation Agency (Innosuisse)	56	56	–	63	63	–	–7
Special federal funding of applied research	81	51	29	78	56	22	3
EU Framework Programmes for Research and Innovation (FP)	142	142	–	139	139	–	3
Industry-oriented research (private sector)	139	50	89	129	44	85	9
Other project-oriented third-party funding (incl. cantons, municipalities, international organisations)	84	60	24	74	54	20	10
Total research contributions, mandates and scientific services	**755**	**613**	**142**	**743**	**616**	**127**	**12**

The most important drivers for the once again high revenue from **federal funding of applied research** are the increased project volumes, especially at WSL, and generally the greater project progress. WSL generates a significant portion (2018: CHF 14m, 16% share) of its operating revenue through applied research contracts financed by special federal funding. They include large projects with the FOEN on a variety of topics such as forestry and climate change, and projects within the scope of the Swiss National Forest Inventory (NFI). Overall, revenue from federal government research shows a shift from research funding to contract research: income from IPSAS 23 fell by CHF 4m or –5% compared with the previous year, while income from IPSAS 9 increased by CHF 7m or +9%.

The high level of realisation of the **EU Framework Programmes for Research and Innovation (EU FP)** exceeded the previous year's level and confirms the positive trend (2018: CHF 142m; 2017: CHF 139m). Although Switzerland has been a full associate of Horizon 2020 since the beginning of 2017, the total revenue for the reporting period still includes revenue from the realisation of projects which had been financed in previous years via the SERI from federal funding (2018: CHF 28m; 2017: CHF 32m). In addition to the handling of projects from the 7th FP, the revenue now includes more projects from the FP Horizon 2020 (2014–2020). The totals of the two Federal Institutes of Technology remained at the previous year's level, while the PSI and Empa recorded higher revenues from EU FPs. Various projects at EPFL are linked to the FET flagship Human Brain Project (HBP); the finances for its start-up phase were covered by the 7th FP.

Revenue from **cooperation with the private sector** was up CHF 9m or 7% on 2017. The increase is mainly attributable to ETH Zurich. The research institutes also recorded additional revenue or posted revenue at 2017 levels. Research projects which are mainly based on projects with exchange transactions (IPSAS 9) have proved to be very volatile in a long-term comparison with corresponding fluctuations in revenue.

The **other project-oriented third-party funds** are contributions from the cooperation with cantons, municipalities and international organisations. The increase of almost CHF 10m or 13% compared to 2017 is marked by diverging individual events. On the one hand, at PSI the funding of the SwissFEL / ARAMIS had come to an end, resulting in a decrease in the reporting period (– CHF 6m). On the other hand, the volume rose sharply at EPFL (+ CHF 9m) due to contributions towards EPFL Valais Wallis and Freiburg (Smart Living Lab). Higher revenue was also recognised at ETH Zurich, including the consolidated entity in Singapore (+ CHF 6m).

10 Donations and bequests

Table 19: Donations and bequests

CHF millions	2018	2017	Change absolute
Total donations and bequests	**155**	**120**	**35**

The positive trend continued in 2018. Compared with the previous year's volume, which was also high, there was a further increase of CHF 35m.

The great majority of the donations and bequests went again to the two Federal Institutes of Technology. They amounted to CHF 136m for ETH Zurich (2017: CHF 83m) and CHF 13m for EPFL (2017: CHF 31m). Most of these donation agreements concluded in 2018 were recognised in the surplus or deficit in the year in which the agreement was concluded.

The research institutes also benefited from donations. They amounted, as in the previous year, to less than CHF 1m in the reporting period in each of the research institutions.

As in the previous year, the revenue from in-kind contributions of CHF 4m arising from the donated rights concerns EPFL for the Microcity building in Neuchatel and for Industry 17 in Sion.

Table 20: In-kind contributions

CHF millions	2018	2017	Change absolute
Goods in-kind	–	–	–
Donated rights	4	4	–
Total in-kind contributions recognised as revenue	**4**	**4**	**–**
Services in-kind	–	–	–
Total in-kind contributions not recognised as revenue	**–**	**–**	**–**
Total in-kind contributions received	**4**	**4**	**–**

11 Other revenue

Table 21: Other revenue

CHF millions	2018	2017	Change absolute
Licences and patents	11	10	–
Sales	13	13	1
Refunds	15	10	5
Other services	43	45	–2
Real estate revenue	33	38	–4
Revenue from real estate owned by the Federal Government left for use	4	–	4
Profit from disposals (property, plant and equipment)	1	1	–
Own work capitalised	–	4	–4
Other miscellaneous revenue	18	19	–1
Total other revenue	**138**	**140**	**–2**

The difference compared to 2017 was mainly due to the additional revenue from refunds, and to the fact that, in compensation thereto, the PSI had no need to capitalise its own work. In 2017 the PSI capitalised its own work for ATHOS / SwissFEL. It did not capitalise its own work in the reporting period. The increase in refunds was due to the allocation of dismantling costs.

The revenue from real estate owned by the Federal Government left for use will be separated in the above table from 2018, which was previously recognised under 'Real estate revenue'. This is in accordance with Section 2b of the Ordinance on Accounting (SR 414.123). The associated charge to the Federal Government is included in 'Other operating expenses' (see Note 13).

About CHF 42m of other revenue is attributable to the entities fully consolidated since 2017 (EPFL sub-consolidation), in particular Société du Quartier Nord de l'EPFL (SQNE), Société du Quartier de l'Innovation (SQIE) and EPFL Innovation Park Foundation (FEIP).

12 Personnel expenses

Table 22: Personnel expenses

CHF millions	2018	2017	Change absolute
Professors	205	203	3
Scientific personnel	907	896	11
Technical and administrative personnel, apprentices, trainees	736	709	28
IC, Suva and other refunds	–10	–10	–
Total salaries and wages	**1,839**	**1,797**	**42**
Social insurances OASI / DI / IC / MB	115	113	2
Net pension costs	317	320	–3
Accident and sickness insurance Suva (BU / NBU / KTG)	8	8	–
Employer's contribution to Family Compensation Fund (FAK / FamZG)	27	26	1
Total social insurance schemes and pension expenses	**466**	**466**	**–**
Other employer contributions	–	–1	1
Temporary personnel	11	14	–3
Change in provisions for untaken leave and overtime	5	7	–2
Change in provisions for contributions to long-service awards	–10	1	–10
Other personnel expenses	20	18	2
Total personnel expenses	**2,333**	**2,303**	**30**

Total salaries and wages rose due to the moderate growth in jobs and on account of the compensation measures decided upon by the ETH Board for 2018. 1.2% of the total salary payments were at the disposal of employees under the Salary System (NSS) for individual salary adjustments. Inflation in 2017 was offset by 0.6% in 2018.

There was an average of 18,453 full-time equivalents (FTEs) (excluding apprentices) in the reporting period (previous year: 18,044 FTEs). It rose by 2%.*

The detailed composition of the net pension costs is set out in detail in the Note 28 Net defined benefit liabilities.

There was a change in estimates made in the reporting period to determine the provision for contributions to long-service awards. The non-recurring effect of this adjustment was recognised prospectively in accordance with IPSAS 3 and resulted in a CHF 8m reduction in expenses. It is included in the amount of -CHF 10m change in provisions for contributions to long-service awards.

* The annual report does not show the annual average value but the year end figure. This is 19,120.4 FTEs (including apprentices). The figure in the annual report also excludes the FTEs of the controlled entities.

13 Other operating expenses

Table 23: Other operating expenses

CHF millions	2018	2017	Change absolute
Expenses for goods and materials	144	133	11
Premises costs	406	407	–1
Energy costs	56	58	–1
IT expenses	98	92	6
Expenses for consultations, expertises and guest lecturers	85	72	13
Library expenses	31	28	3
Other operating costs	168	168	1
Total other operating expenses	**990**	**958**	**32**

In the reporting period, the majority of the institutions contributed to the increase in expenses for goods and materials. This expense category is directly influenced by the progress of the research projects.

66% (previous year 68%) of the premises costs comprise the rental fees for the state-owned real estate used by the institutions of the ETH Domain.

In the area of IT, software migrations in particular triggered higher costs. The expenses for consultations, expertises and guest lecturers rose and this increase is attributable to the higher use of consulting services.

In the 2018 financial year, a charge was paid to the Confederation for the first time out of the revenue of state-owned real estate to third parties left for use (Ordinance on Finance and Accounting of the ETH Domain, section 2b). The charge was included in other operating costs and amounted to CHF 2m in the reporting period. The corresponding revenue of CHF 4m is disclosed under other revenue (see Note 11).

14 Transfer expenses

Table 24: Transfer expenses

CHF millions	2018	2017	Change absolute
Scholarships and grants to students and doctoral students	20	20	–
Contributions to research projects	12	14	–3
Expenses for the participation in projects of national significance	–	–	–
Special initiatives	–	–	–
Other	12	14	–3
Other transfer expenses	11	7	3
Total transfer expenses	**43**	**42**	**1**

15 Net finance income / expense

Table 25: Net finance income / expense

CHF millions	2018	2017	Change absolute
FINANCE INCOME			
Interest income	6	5	2
Income from investments	3	3	–
Changes in fair value of financial assets	1	18	–17
Foreign currency gains	5	6	–1
Other finance income	–	–	–
Total finance income	**16**	**32**	**–16**
FINANCE EXPENSE			
Interest expense	10	10	–
Other financing costs for provision of capital	–	–	–
Changes in fair value of financial assets	18	2	16
Foreign currency losses	9	6	3
Impairment of loans and fixed deposits	–	–	–
Other finance expense	1	1	1
Total finance expense	**38**	**19**	**19**
Total net finance income / expense	**–22**	**13**	**–35**

The adverse development on the financial markets led to a negative performance on the investment capital employed in the reporting period. The unfavourable development in exchange rates also contributed to the overall negative net finance income / expense.

The interest income includes interest from unwinding of the discount on receivables of CHF 4m (previous year: CHF 2m).

Interest expenses mainly comprise interest expenses from finance leases. Further information about finance leases can be found in Note 25 Financial liabilities.

16 Cash and cash equivalents

Table 26: Cash and cash equivalents

CHF millions	31.12.2018	31.12.2017	Change absolute
Cash	1	1	–
Swiss Post	205	192	13
Bank	62	64	–2
Short-term deposits (<90 days)	583	476	107
Total cash and cash equivalents	**852**	**733**	**118**

CHF 573m or 98% of the short-term deposits are with the Federal Treasury, based on the agreement of 29 November 2007 between the Federal Finance Administration and the ETH Domain on the treasury relationships. This figure was CHF 466m in the previous year. These funds will be used for teaching and research in the future.

17 Receivables

Table 27: Receivables

CHF millions	31.12.2018	31.12.2017	Change absolute
RECEIVABLES FROM NON-EXCHANGE TRANSACTIONS			
Receivables from project contracts and donations	1,522	1,387	135
Other receivables	6	7	–
Value adjustments	–	–	–
Total receivables from non-exchange transactions	**1,528**	**1,393**	**135**
of which current	558	555	3
of which non-current	970	838	132
RECEIVABLES FROM EXCHANGE TRANSACTIONS			
Trade accounts receivable	37	39	–2
Other receivables	1	1	–
Value adjustments	–2	–2	–
Total receivables from exchange transactions	**36**	**38**	**–2**
of which current	36	38	–2
of which non-current	–	–	–

The receivables from non-exchange transactions comprise the remaining amounts from contractually agreed project totals or from granted donations which had not been called or paid by the end of the year. Compared to 2017, credit due from third-party donors grew by CHF 135m.

Compared to 2017, receivables rose from all categories of sources of finance, the SNSF, EU, federal funding of applied research and the private sector, as well as local authorities, cantons and international organisations, with the exception of receivables from Innosuisse.

The other receivables from non-exchange transactions essentially included the assets from the settlement with social security institutions.

Due dates of the receivables:

Table 28: Maturity analysis

CHF millions	Total receivables	Not past due	Past due up to 90 days	Past due 91 to 180 days	Past due more than 180 days
			31.12.2018		
Gross amount	**1,566**	**1,547**	**14**	**1**	**4**
Receivables from non-exchange transactions	1,528	1,522	5	1	1
Receivables from exchange transactions	38	25	9	1	3
Value adjustments	**–2**	**–1**	**–**	**–**	**–1**
Of which individually impaired	–1				
			31.12.2017		
Gross amount	**1,434**	**1,414**	**12**	**6**	**2**
Receivables from non-exchange transactions	1,393	1,386	4	3	–
Receivables from exchange transactions	40	28	7	2	2
Value adjustments	**–2**	**–**	**–**	**–**	**–2**
Of which individually impaired	–1				

Value adjustments of receivables

Value adjustments of an unchanged CHF 2m were recorded for at-risk trade accounts receivable at the end of 2018. No value adjustment is to be reported on receivables from revenue from non-exchange transactions.

18 Inventories

Table 29: Inventories

CHF millions	31.12.2018	31.12.2017	Change absolute
Inventories purchased	10	10	–1
Inventories self-produced	–	–	–
Total inventories	**10**	**10**	**–1**

Basically, the ETH Domain does not have considerable inventories or its own products to sell. The inventories consist of recurring stock items such as chemicals, laboratory materials and materials for experiments that are used in teaching and in research. An annual physical inventory is done for stocks with a total value of more than CHF 100,000.

19 Prepaid expenses and accrued income

Table 30: Prepaid expenses and accrued income

CHF millions	31.12.2018	31.12.2017	Change absolute
Interest	–	–	–
Prepaid expenses	34	35	–1
Other prepaid expenses and accrued income	14	10	4
Total prepaid expenses and accrued income	**48**	**45**	**3**

The largest deferrals for prepaid expenses, which were down slightly on 2017 (– CHF 1m), particularly included prepayments for the library (media procurement 2019 amounting to CHF 18m), rental payments in advance (CHF 5m) and advance payments for information technology maintenance (CHF 2m).

As in the previous year, the other prepaid expenses and accrued income included deferment on income of CHF 6m in connection with IPSAS 9 transactions (Revenue from exchange transactions).

20 Investments in associated entities and joint ventures

Details about the significant associated entities can be found in the tables below. All associated entities can be found in Note 35 Relationships with controlled and associated entities.

There were no joint ventures in the ETH Domain in the reporting year.

Investments in associated entities changed as follows over the course of the year, as shown in Table 31:

Table 31: Change in associated entities

CHF millions	2018	2017
As of 01.01.	**147**	**134**
Additions	–	–
Disposals	–	–
Dividends	–1	–1
Share of the annual surplus or deficit	–11	14
Share of items directly recognised in equity	–1	–
As of 31.12.	**135**	**147**

The summarising financial information about the material associated entities is indicated below. The statements and the amounts shown there were adjusted for the purposes of recognition in accordance with the equity method with simplifications in line with the accounting practices of the ETH Domain.

Table 32: Material associated entities – aggregated financial information

CHF millions	ETH Zurich Foundation	Albert Lück Foundation	Student Housing Foundation	Foundation Les Bois Chamblard	Foundation Campus Biotech Geneva
31.12.2018					
Reporting date used	31.12.2018	31.12.2017	31.12.2017	31.12.2017	31.12.2018
Current assets	264	1	4	12	15
Non-current assets	226	53	107	15	14
Short-term liabilities	–	5	–	–	9
Long-term liabilities	2	33	54	–	9
Revenue	131	6	11	–	21
Surplus (+) or deficit (–)	–12	1	2	–	–2
Dividends received from the associated entity	–	–	–	–	–
31.12.2017					
Reporting date used	31.12.2017	31.12.2016	31.12.2016	31.12.2016	31.12.2017
Current assets	254	2	2	12	18
Non-current assets	171	55	108	16	15
Short-term liabilities	1	8	–	–	9
Long-term liabilities	1	33	55	1	9
Revenue	56	6	11	–	29
Surplus (+) or deficit (–)	13	1	2	–1	–2
Dividends received from the associated entity	–	–	–	–	–

Table 33: Aggregated information for individually immaterial associated entities

CHF millions	2018	2017
Revenue	38	34
Tax expense	1	1
Surplus (+) or deficit (–)	4	4

Unrecognised share of losses of associated entities:
There is no unrecognised share of losses of associated entities, either in the reporting period or on a cumulative basis.

21 Property, plant and equipment and intangible assets

Movable assets

Large scale research plants and equipment, machinery, furnishings, vehicles:

The high increase in this category compared to the previous year is due to a one-off effect at the PSI which does not affect liquidity. An updated total cost estimate by the Federal Government for the dismantling of nuclear / accelerator facilities and the disposal of radioactive waste led to an increase of CHF 205m in the purchase value of the accelerator facilities at the PSI in the reporting period by applying IFRIC 1 (Changes in existing decommissioning, restoration and similar liabilities). The provisions were increased by the same amount (see explanations in Note 4 Estimation uncertainty and management judgements and Note 27 Provisions). The book value of the accelerator facilities as at 31 December 2018 amounts to CHF 611m in the consolidated financial statements.

Adjusted to allow for this one-off effect, acquisitions in this category – together with movable assets under construction – were at the previous year's level. Examples of major investments this year are the acquisition of electron microscopes at the two universities, the construction of beamlines in the SwissFEL large-scale research facility at the PSI and extensions to the NEST research and innovation building at Empa.

The reclassifications of CHF 44m relate to movable assets under construction, which were definitely allocated to this asset category in the reporting period and will therefore be depreciated in the future.

Disposals relate to assets that have been scrapped or sold, with only a small cash flow associated with the sale of the assets.

IT and communication:

The IT hardware purchased in the reporting period mainly relates to high-performance computers at ETH Zurich and EPFL.

Table 34: Change in property, plant and equipment and intangible assets in 2018

CHF millions	Large scale research plants and equipment, machinery, furnishings, vehicles	Information and communication	Advance payments, movable assets under construction	Total movable assets	Property, buildings	Assets under construction	Total immovable assets	Total property, plant and equipment	Total intangible assets
PURCHASE VALUE									
Value as of 01.01.2018	**2,523**	**386**	**84**	**2,994**	**762**	**132**	**894**	**3,888**	**93**
Additions	306	30	51	386	5	35	40	426	4
Reclassifications	44	4	–48	–	25	–25	–	–	–
Disposals	–51	–19	–1	–72	–18	–	–19	–91	–1
Value as of 31.12.2018	**2,821**	**401**	**86**	**3,308**	**773**	**141**	**915**	**4,223**	**96**
ACCUMULATED DEPRECIATION									
Value as of 01.01.2018	**1,452**	**311**	**–**	**1,763**	**262**	**–**	**262**	**2,025**	**25**
Depreciation	165	42	–	207	48	–	48	255	5
Impairments	1	–	–	1	–	–	–	1	–
Reversed impairments	–	–	–	–	–	–	–	–	–
Reclassifications	–	–	–	–	–	–	–	–	–
Disposals value adjustments	–48	–19	–	–67	–15	–	–15	–82	–1
Value as of 31.12.2018	**1,570**	**334**	**–**	**1,905**	**295**	**–**	**295**	**2,199**	**29**
Balance sheet value as of 31.12.2018	**1,251**	**66**	**86**	**1,403**	**479**	**141**	**620**	**2,023**	**67**
thereof leased assets				–			220	220	–

Immovable assets
Most of the real estate is owned by the federal government, so it is mainly leasehold improvements that are reported in this section. The property, plant and equipment leased to the value of CHF 220m relates in particular to the SQIE and SQNE entities controlled by EPFL.

Intangible assets
Intangible assets include capitalised licences, patents, rights, software and donated rights. The additions in the 2018 financial year relate in particular to software acquired by the two universities.

All asset classes are depreciated using the principles described in Note 3. Additionally determined depreciation requirements are shown separately under impairments in the above table.

Table 35: Change in property, plant and equipment and intangible assets in 2017

CHF millions	Large scale research plants and equipment, machinery, furnishings, vehicles	Information and communica-tion	Advance payments, movable assets under construction	Total movable assets	Property, buildings	Assets under construction	Total immovable assets	Total property, plant and equipment	Total intangible assets
PURCHASE VALUE									
Value as of 01.01.2017	**2,209**	**372**	**271**	**2,852**	**670**	**184**	**854**	**3,706**	**89**
Additions	96	27	61	183	7	33	40	223	4
Reclassifications	243	4	−248	–	85	−85	–	–	–
Disposals	−25	−16	–	−42	–	–	–	−42	–
Value as of 31.12.2017	**2,523**	**386**	**84**	**2,994**	**762**	**132**	**894**	**3,888**	**93**
ACCUMULATED DEPRECIATION									
Value as of 01.01.2017	**1,346**	**289**	**–**	**1,635**	**222**	**–**	**222**	**1,856**	**21**
Depreciation	125	39	–	163	40	–	40	203	4
Impairments	1	–	–	1	–	–	–	1	–
Reversed impairments	–	–	–	–	–	–	–	–	–
Reclassifications	–	–	–	–	–	–	–	–	–
Disposals value adjustments	−19	−16	–	−35	–	–	–	−35	–
Value as of 31.12.2017	**1,452**	**311**	**–**	**1,763**	**262**	**–**	**262**	**2,025**	**25**
Balance sheet value as of 31.12.2017	**1,071**	**75**	**84**	**1,230**	**500**	**132**	**632**	**1,863**	**68**
thereof leased assets				–			232	232	–

22 Financial assets and loans

Table 36: Financial assets and loans

CHF millions	31.12.2018	31.12.2017	Change absolute
CURRENT FINANCIAL ASSETS AND LOANS			
Securities and fixed deposits	231	242	–12
Positive replacement values	–	–	–
Other financial assets	1,178	1,146	32
Loans	1	1	–
Total current financial assets and loans	**1,409**	**1,389**	**20**
NON-CURRENT FINANCIAL ASSETS AND LOANS			
Securities and fixed deposits	–	–	–
Other financial assets	30	25	6
Loans	1	1	1
Total non-current financial assets and loans	**32**	**26**	**6**

Current financial assets are especially financed with third-party funds that are not used immediately. On the basis of the prevailing treasury agreement between the FFA and the ETH Domain, these funds are placed on the market or with the Federal Government. The third-party funds placed on the market are managed under asset management mandates with Swiss banks.

CHF 32m was paid into the deposit accounts with the Federal Government with a total or remaining term at the time of acquisition of three to twelve months. They are reported under 'other financial assets'. By contrast, the holdings of current securities and fixed deposits declined due to the negative performance of the asset management mandates.

The other non-current financial assets include investments which are available for sale and the non-current federal government deposit account, to which CHF 8m was allocated. This deposit account is accumulated annually in order to finance the future dismantling of the accelerator facilities at the PSI (see Note 27 Provisions). The investments which are available for sale mainly contain participations in spin-offs with a shareholding of less than 20% in the accounts of ETH Zurich, EPFL, the PSI and Empa. They are measured at fair value, which fell by CHF 2m in the reporting period.

Of the total financial assets at the end of 2018 (CHF 1,441m), CHF 1,163m (2017: CHF 1,123m) was invested with the Federal Government and CHF 265m (2017: CHF 276m) was placed with financial institutions.

One third of the current and non-current loans, which totalled CHF 2m, consist of concessionary loans given to students, doctoral students and spin-offs. Loans to students and doctoral students are to be paid back within a year (current) or in instalments within six years of the completion of the studies (non-current). During the reporting period, a slight value adjustment was recognised in respect of a loan to a spin-off at the PSI. There were no significant overdue loans as of 31 December 2018.

23 Co-financing

Table 37: Co-financing

CHF millions	2018	2017	Change absolute
PURCHASE VALUE			
As of 01.01.	**156**	**160**	**–4**
Additions	7	1	7
Disposals	–	–5	5
As of 31.12.	**164**	**156**	**7**
ACCUMULATED DEPRECIATION			
As of 01.01.	**32**	**27**	**4**
Depreciation	4	4	–
Disposals	–	–	–
As of 31.12.	**36**	**32**	**4**
Balance sheet value as of 31.12.	**128**	**125**	**3**

The increase of CHF 7m is related to the new day nursery at EPFL.
A value adjustment of the co-financing by annual depreciation (2018: –CHF 4m) resulted in a carrying amount of CHF 128m as of the end of 2018.

24 Current liabilities

Table 38: Current liabilities

CHF millions	31.12.2018	31.12.2017	Change absolute
Trade payables	48	70	–22
Liabilities to social insurance institutions	28	27	1
Other current liabilities	104	75	29
Total current liabilities	**179**	**172**	**7**

In view of a change of SAP system at ETH Zurich on 01 January 2019, all trade payables were settled at the end of 2018. This led to a sharp decline compared to 2017 (-CHF 25m) at ETH Zurich. By contrast, there was an increase at EPFL (+CHF 10m), mainly due to liabilities to co-applicants for the FET flagship HBP project.

The increase in other current liabilities mainly reflects the increased financial obligations towards the research partners involved in projects in which the institutions of the ETH Domain are the leading houses. These are funds that have already been received but still have to be passed on to the project partners.

25 Financial liabilities

Table 39: Current and non-current financial liabilities

CHF millions	31.12.2018	31.12.2017	Change absolute
CURRENT FINANCIAL LIABILITIES			
Liabilities to financial institutes	–	–	–
Finance lease liabilities	9	9	–
Negative replacement values	1	1	–
Other financial liabilities	7	6	1
Total current financial liabilities	**16**	**16**	**1**
NON-CURRENT FINANCIAL LIABILITIES			
Finance lease liabilities	285	294	–9
Other financial liabilities	76	80	–4
Total non-current financial liabilities	**361**	**374**	**–12**

The finance lease liabilities decrease by the proportion of the annual lease payments paid back. Other financial liabilities include the payment commitment for the right of use received by EPFL in connection with the Microcity building, which was recognised as a finance lease (CHF 58m, previous year: CHF 60m). The annual decrease corresponds to a service received periodically and is recognised as revenue from donations.

Table 40: Finance leasing

CHF millions	Future minimum leasing payments	Future financial expenses	Present value of future minimum leasing payments	Future minimum leasing payments	Future financial expenses	Present value of future minimum leasing payments
	2018	2018	2018	2017	2017	2017
Due dates						
Due within 1 year	17	8	9	17	9	9
Due within 1 to 5 years	68	31	37	68	32	37
Due after more than 5 years	328	80	248	343	86	257
As of 31.12.	**413**	**119**	**294**	**429**	**126**	**302**

	2018	2017
LEASING EXPENSES		
Contingent lease payments expensed in period	–	–
ADDITIONAL DETAILS		
Future revenue from sublease (from non-cancellable contracts)	42	41

The finance leasing at EPFL concerns real estate in the simple partnerships SQIE and SQNE. EPFL has made various assumptions with regard to the recognition of these lease agreements, which are set out in Note 4 Estimation uncertainty and management judgements. The lease agreements both include a clause linking the rent to general price trends (underlying consumer price index). The present value of minimum lease payments as of the end of the reporting period is CHF 175m with SQNE and CHF 102m with SQIE (30-year lease).

The finance lease for ETH Zurich concerns real estate on the Hönggerberg campus (total present value of future minimum leasing payments is CHF 16m). The building was occupied in September 2015, and the lease will run until 2045. There are no options for extension or purchase. The net rent is indexed at 80% and can be adjusted at the end of each year.

26 Accrued expenses and deferred income

Table 41: Accrued expenses and deferred income

CHF millions	31.12.2018	31.12.2017	Change absolute
Interest	–	–	–
Deferred income	94	92	2
Other accrued expenses and deferred income	48	43	5
Total accrued expenses and deferred income	**142**	**134**	**7**

Deferred income received in advance especially includes service agreements and commissioned research from exchange transactions in accordance with IPSAS 9 (2018: CHF 82m, 2017: CHF 79m).

EPFL recorded the largest change in other accrued expenses and deferred income, with an increase of CHF 6m to a total of CHF 14m. The increase is mainly due to an outstanding invoice for the purchase of IT products. The remainder is distributed among ETH Zurich (CHF 23m), the PSI (CHF 8m) and Empa (CHF 2m), whereby this particularly entails withholding taxes, deferred expenses for central procurement, operations and construction projects.

27 Provisions

Table 42: Provisions – Summary

CHF millions	31.12.2018	31.12.2017	Change absolute
Provisions for untaken leave and overtime	102	96	5
Other long-term employee benefits (IPSAS 39)	66	76	–10
Dismantling	638	429	209
Guarantees and warranties	–	–	–
Litigations	2	1	1
Other provisions	5	6	–
Total provisions	**813**	**608**	**205**

The overall provisions rose by a total of CHF 205m to CHF 813m. In particular, long-term provisions have had to be increased sharply compared to 2017 (+ CHF 200m or + 40%).

The provisions for untaken leave and overtime were calculated at institutional level. This credit for employees is classified as current.

Other long-term employee benefits (IPSAS 39) include the acquired long-service benefits / jubilee, which are measured by independent actuaries using the projected unit credit method. Compared to the previous year, the change in estimates for determination led to a reduction in these obligations under long-term provisions. The creation and appropriation of this provision are to be posted separately.

The amount for dismantling (CHF 638m) includes CHF 631m (2017: CHF 426m) for the dismantling of the accelerator facilities and the disposal of radioactive waste at the PSI (see explanations in Note 4 Estimation uncertainty and management judgements and Note 21 Property, plant and equipment). The annual addition to the deposit account with the Federal Government, earmarked for financing these costs, (see Note 22 Financial assets and loans) amounted to CHF 8m for 2018. This will increase to CHF 11m per year from 2019 and for subsequent years.

In addition, the PSI formed provisions of CHF 4m in connection with Gantry 3 (facility for radiotherapy) for the dismantling of this facility.

The other provisions still contain provisions on the basis of repayment risks from EU projects in the amount of CHF 5m (EPFL: formation of CHF2m, the PSI: release of CHF 1m compared to 2017).

Table 43: Provisions – Derivation 2018

CHF millions	Provisions for untaken leave and overtime	Other long-term employee benefits (IPSAS 39)	Dismantling	Guarantees and warranties	Litigations	Other provisions	Total provisions
Value as of 01.01.2018	**96**	**76**	**429**	**–**	**1**	**6**	**608**
Creation (incl. increase)	5	5	209	–	1	2	222
Reversal	–	–5	–	–	–	–2	–8
Appropriation	–	–9	–	–	–	–	–9
Reclassifications	–	–	–	–	–	–	–
Increase in present value	–	–	–	–	–	–	–
Value as of 31.12.2018	**102**	**66**	**638**	**–**	**2**	**5**	**813**
of which current	102	–	–	–	2	5	109
of which non-current	–	66	638	–	–	–	705

Table 44: Provisions – Derivation 2017

CHF millions	Provisions for untaken leave and overtime	Other long-term employee benefits (IPSAS 39)	Dismantling	Guarantees and warranties	Litigations	Other provisions	Total provisions
Value as of 01.01.2017	**89**	**75**	**426**	**–**	**1**	**–**	**591**
Creation (incl. increase)	8	11	4	–	1	5	29
Reversal	–	–	–	–	–	–	–
Appropriation	–	–10	–	–	–	–	–11
Reclassifications	–	–	–	–	–	–	–
Increase in present value	–	–	–	–	–	–	–
Value as of 31.12.2017	**96**	**76**	**429**	**–**	**1**	**6**	**608**
of which current	96	–	–	–	1	5	103
of which non-current	–	76	429	–	–	–	505

28 Net defined benefit liabilities

Most employees and pensioners of the institutions of the ETH Domain, as well as the staff and the President of the ETH Board, are insured under the pension scheme the ETH Domain maintains at the collective institution "Swiss Federal Pension Fund PUBLICA" (PUBLICA). There are no other significant pension schemes at the controlled entities, therefore any further statements in the text refer to the pension scheme the ETH Domain maintains at PUBLICA.
However, the existing balance for net defined benefit liabilities as of 31 December 2018 includes obligations under other pension plans outside the ETH Domain's pension fund at PUBLICA amounting to CHF 4m (previous year: CHF 3m).

Legal framework and responsibilities

Legal requirements
Swiss pension plans must be run through a legally separate, trustee-administered pension institution. The law prescribes minimum benefits.

Organisation of the pension scheme
PUBLICA is an independent, state-run institution under public law.

The Board of Directors (*Kassenkommission*) is PUBLICA's most senior governing body. In addition to management, it is also responsible for the oversight and supervision of PUBLICA's Executive Board. The Board of Directors has 16 members, eight representing the insured employees and eight representing the employers, from among all the affiliated pension plans. This means that PUBLICA's most senior governing body is made up of an equal number of employee and employer representatives.

Each pension scheme has its own governing body made up of equal numbers of representatives. Among other things, it is involved in concluding the affiliation contract and decides on the appropriation of any surpluses. Each governing body is made up of nine employer representatives and nine employee representatives from the entities.

Insurance plan
In accordance with IPSAS 39, insurance plans are classified as defined benefit plans.

The pension plan is defined in the terms of the ETH Domain pension scheme applicable to employees and professors, which form part of the affiliation contract with PUBLICA. The pension plan provides benefits in excess of the minimum benefits required by law in the event of disability, death, old age and departure; i.e. it is what is known as an "enveloping" plan (obligatory and extraordinary benefits).

The employer and employee savings contributions are set as a percentage of the insured salary. A risk premium is charged for death and disability insurance. The administrative costs are paid by the employer.

The old-age pension is calculated from the credit balance in the retirement fund at the retirement date multiplied by the conversion rate specified in the terms. Employees have the option of drawing the retirement benefits as a lump sum. There are pension plans for different groups of insured persons. In addition, employees have the option of making additional savings contributions.

The risk benefits are determined depending on the projected savings capital, which attracts interest, and on the conversion rate.

Investment of assets
Investments are made by PUBLICA for all pension schemes (with the same investment profile) collectively.

As PUBLICA's most senior governing body, the Board of Directors bears overall responsibility for asset management. It is responsible for issuing and amending the investment policy and determines the investment strategy. The Investment Committee advises the Board of Directors on investment-related issues and oversees compliance with the investment policy and strategy.

Responsibility for implementing the investment strategy rests with PUBLICA's Asset Management. Asset Management also makes tactical decisions to deviate temporarily from the investment strategy weightings in order to generate added value compared to the existing strategy. Where individual asset classes are built up or reduced over a number of years, a pro rata strategy is calculated so as to enable transactions to be diversified over time.

Risks for the employer

The governing body of the ETH Domain's pension scheme made up of equal numbers of representatives can change the funding system (contributions and future benefits) at any time. The governing body may collect restructuring contributions from the employer if the scheme is underfunded within the meaning of pension law (Article 44 Occupational Pension Ordinance (BVV 2)) and if other measures are without success. If these are used to fund benefits in excess of the statutory minimum, the employer must indicate their agreement with this.

The definitive funding ratio in accordance with the Occupational Pensions Act (BVG) was not yet available at the time the annual consolidated financial statements were authorised for issue. The provisional regulatory funding ratio for the ETH Domain's pension scheme at PUBLICA, in accordance with the Occupational Pension Ordinance (BVV 2), was 101.8% at the end of 2018 (2017: 108.0%, definitive). The provisional economic funding ratio for the ETH Domain's pension scheme at PUBLICA was 84.7% at the end of the year (2017: 89.5%, definitive).

Special events

On 25 January 2018, PUBLICA's Board of Directors decided to reduce the technical interest rate and the conversion rate as of 1 January 2019 due to the situation of low interest rates on the capital markets which has persisted for years, rising life expectancy and inadequate long-term return expectations. The technical interest rate in the pension scheme of the ETH Domain has been 2.75% since 1 January 2015. It is set at 2.00% as of 1 January 2019. The conversion rate until end of 2018 amounts to 5.65% at the age of 65 and will be set at 5.09% from 1 January 2019.

The Board of Directors has decided on protection measures for the generation that is over 60 years old at the time of the changeover. The change will thus be fully compensated for insured persons aged 65 and at least partially compensated for insured persons aged 60 and over. However, these measures only apply to pension withdrawals and not to lump-sum withdrawals.

The governing body of ETH Domain's pension scheme has decided to take further protection measures. On the one hand, saving contributions will be increased, and on the other hand, the prudent provisioning policy will allow additional increases in retirement capital on 1 January 2019. The retirement capital for insured persons aged 45 and over will increase linearly, so that the losses from age 60 onwards will be fully compensated.

The Federal Council approved the adjustments on 25 April 2018. The plan amendments were therefore valued at a discount factor of 0.5% (as at 30 April 2018) and are included in the IPSAS valuation as past service cost.

Table 45: Net defined benefit liabilities

CHF millions	31.12.2018	31.12.2017
Present value of defined benefit obligations	−9,033	−8,918
Fair value of plan assets	6,795	7,024
Recognised net defined benefit liabilities	**−2,239**	**−1,894**

The CHF 344m increase in net defined benefit liabilities was mainly due to the negative performance of pension assets and to the rise in membership.

Of the total, CHF 4m (2017: CHF 3m) of the net defined benefit liabilities relate to pension plans outside the ETH Domain's pension fund at PUBLICA.

Table 46: Net pension costs

CHF millions	2018	2017
Current service cost (employer)	297	305
Past service cost	9	5
Gains (–) / losses (+) from plan settlements	–	–
Interest expense from defined benefit obligations	27	18
Interest income from plan assets	–21	–13
Administrative costs (excl. asset management costs)	4	5
Other	–	–
Total Net pension costs incl. interest expense recognised in statement of financial performance	**317**	**320**

The ETH Domain's net pension costs for the reporting period are CHF 317m (2017: CHF 320m), of which CHF 2m (2017: CHF 1m) relate to pension plans outside the ETH Domain's pension plan at PUBLICA.

Net pension costs are down CHF 3m on the previous year. The CHF 7m decrease in current service cost can be attributed to the actuarial assumptions adjusted in the previous year (2017 vs. 2016). The past service cost includes the acquisitions (CHF 7m) made by professors at ETH Zurich and EPFL and the effects (CHF 2m) from the adjustment of the technical interest rate and the conversion rate at PUBLICA.

Interest expenses from defined benefit obligations increased by CHF 9m and interest income from plan assets by CHF 8m. This is due to the higher discount rate as of 01.01 (2018: 0.3% vs. 2017 0.2%). The net effect was + CHF 1m. Deposits amounting to CHF 8.5m were transferred from the ETH Board to the ETH Domain's pension plan in the year under review.

Employer's contributions of CHF 218m and employees' contributions of CHF 117m are expected for the coming financial year.

Table 47: Revaluation recognised in equity

CHF millions	31.12.2018	31.12.2017
Actuarial gains (–) and losses (+)		
from change in financial assumptions	–40	–320
from change in demographic assumptions	–37	–
from experience adjustments	76	178
Return on plan assets excl. interest income (gains (–) / losses (+))	253	–465
Other	–	–
Revaluation amount recognised in equity	**253**	**–606**
Cumulative amount of revaluation recognised in equity (gain (–) / loss (+))	**1,366**	**1,113**

The revaluation loss recognised in equity in 2018 amounted to CHF 253m (2017: revaluation profit of CHF 606m). This results in a cumulative accrued loss of CHF 1,366m as of 31 December 2018 (2017: CHF 1,113m). Of which, revaluation profits of CHF 1m (2017: CHF 1m) relate to pension plans outside the ETH Domain's pension fund at PUBLICA. The actuarial gains from changes in financial and demographic assumptions result, on the one hand, from a reduction in the interest on retirement savings and, on the other hand, from the adjustment of the disability probabilities from 100% to 85% of the technical basis BVG 2015 (previous year: no change in demographic assumptions).

Table 48: Change in present value of defined benefit obligations

CHF millions	2018	2017
Present value of defined benefit obligations as of 01.01.	**8,918**	**8,946**
Current service cost (employer)	297	305
Interest expense from defined benefit obligations	27	18
Employee contributions	116	114
Benefits paid in (+) and paid out (–)	–334	–328
Past service cost	9	5
Gains (–) / losses (+) from plan settlements	–	–
Actuarial gains (–) / losses (+)	–1	–141
Other	–	–
Present value of defined benefit obligations as of 31.12.	**9,033**	**8,918**

The weighted average term arising from defined benefit obligations is 14.8 years as of 31 December 2018 (2017: 15.2 years).

Table 49: Change in the fair value of plan assets

CHF millions	2018	2017
Fair value of plan assets as of 01.01.	**7,024**	**6,544**
Interest income from plan assets	21	13
Employer contributions	225	220
Employee contributions	116	114
Benefits paid in (+) and paid out (–)	–334	–328
Gains (+) / losses (–) from plan settlements	–	–
Administrative costs (excl. asset management costs)	–4	–5
Return on plan assets excl. interest income (gains (+) / losses (–))	–253	465
Other	–	–
Fair value of plan assets as of 31.12.	**6,795**	**7,024**

Table 50: Transition of net defined benefit liabilities

CHF millions	2018	2017
Net defined benefit liabilities as of 01.01.	**–1,894**	**–2,401**
Net pension costs incl. interest expense recognised in statement of financial performance	–317	–320
Revaluation amount recognised in equity	–253	606
Employer contributions	225	220
Obligations paid directly by the entity	–	–
Other	–	–
Net defined benefit liabilities as of 31.12.	**–2,239**	**–1,894**

Table 51: Major categories of plan assets (in percentage)

Percentage	Listed	Not listed	31.12.2018	Listed	Not listed	31.12.2017
Liquidity	3	–	2	4	–	3
Bonds (in CHF) Confederation	7	–	6	6	–	6
Bonds (in CHF) ex. Confederation	13	–	12	12	–	11
Government bonds (in foreign currencies)	28	–	26	28	–	26
Corporate bonds (in foreign currencies)	15	–	14	15	–	14
Mortgages	–	–	–	–	–	–
Shares	31	–	28	33	–	31
Real estate	1	65	7	–	70	5
Commodities	2	–	2	2	–	2
Other	–	35	3	–	30	2
Total plan assets	**100**	**100**	**100**	**100**	**100**	**100**

PUBLICA bears the actuarial and investment risks itself. The investment strategy is defined in such a way that benefits under the policy can be provided at maturity.

There is no known pension plan property used by the employer.

Table 52: Principal actuarial assumptions used as at the reporting date (in percentage)

Percentage	2018	2017
Discount rate as of 01.01.	0.30	0.20
Discount rate as of 31.12.	0.30	0.30
Expected salary development	0.50	0.50
Expected pension development	0.00	0.00
Interest on retirement savings	0.30	0.50
Life expectancy at age 65 – women (no. of years)	24.54	24.43
Life expectancy at age 65 – men (no. of years)	22.50	22.38

The discount rate is based on the spot interest rates for federal bonds published by the Swiss National Bank on a monthly basis and the expected cash flows of the ETH Domain's pension scheme at PUBLICA in accordance with existing prior-year data. The expected future rate of salary increase is based on reference economic variables. The rate of pension increase is the rate of pension increase expected for the average remaining term based on the financial position of the pension plan. The generation tables in BVG 2015 are applied for assumptions about life expectancy.

Table 53: Sensitivity analysis (effect on present value of defined benefit obligations)

	2018		2017	
CHF millions	Increase in assumption	Decrease in assumption	Increase in assumption	Decrease in assumption
Discount rate (change +/–0,25%)	–323	346	–327	349
Expected salary development (change +/–0,25%)	35	–34	36	–35
Expected pension development (change +/–0,25%)	267	–254	269	–255
Interest on retirement savings (change +/–0,25%)	55	–54	56	–54
Life expectancy (change +/–1 year)	308	–311	304	–309

The adjustment in defined benefit obligations upon adjustment of the actuarial assumptions is determined in the sensitivity analysis. Only one of the assumptions is adjusted at at time, while the other parameters remain unchanged. The discount rate, the interest on retirement savings and the assumptions made on salary and pension development have been increased or lowered by fixed percentage points. The sensitivity to life expectancy has been calculated by lowering or increasing life expectancy by a flat-rate factor, as a result of which the life expectancy of most age categories has been increased or reduced by about one year.

29 Dedicated third-party funds

Table 54: Dedicated third-party funds

CHF millions	31.12.2018	31.12.2017	Change absolute
Swiss National Science Foundation (SNSF)	573	511	63
Swiss Innovation Agency (Innosuisse)	79	112	–33
EU Framework Programmes for Research and Innovation (FP)	430	373	57
Special federal funding of applied research	110	98	12
Industry-oriented research (private sector)	136	156	–19
Other project-oriented third-party funding	70	71	–2
Donations and bequests	111	106	5
Total dedicated third-party funds	**1,510**	**1,428**	**83**

The dedicated third-party funds correspond to the outstanding performance obligations on current research projects and mandates from contracts with non-exchange transactions. The increase of CHF 83m or +6% is positive; it reflects increased availability of third-party funding to promote research in the ETH Domain.

Virtually all the institutions successfully bid for a larger quantity of new projects from the SNSF in 2018; the projects only started towards the end of the year, which is reflected in the sharp rise in dedicated third-party funds in relation to the SNSF.

The volume of dedicated third-party funds from Innosuisse decreased due to two effects: firstly, there were fewer new contracts in connection with the SCCER projects (Coordinated Energy Research Switzerland), and secondly, the progress of ongoing projects led to a reduction of the performance obligation or the volume of dedicated third-party funds.

The strong increase in dedicated third-party funds from EU research contributions was mainly attributable to increased project volumes from FET projects and ERC-grants, as well as generally due to performance obligations for new collaborative projects under Horizon 2020. The two Federal Institutes of Technology and WSL benefited significantly from this. At the PSI and Empa the portfolio decreased due to lower grants and project progress.

Higher project volumes and the resulting increase in performance obligations led to a higher level of federal funding of applied research in the reporting period compared with the previous year, 2017. A substantial part of the increase relates to WSL as a result of a project contract renewed for a further 4 years in connection with the Swiss National Forest Inventory (NFI) and the avalanche warning.

The decline in third-party funding from the private sector is mainly due to the reduction in performance obligations due to project progress at EFPL and the PSI. By contrast, some of the other entities recorded either higher, rising project volumes or the performance obligations remained at 2017 levels.

Dedicated third-party funds in the category 'Other project-oriented third-party funds' category remained at 2017 levels. There was a reduction (–CHF 3m) in the performance obligation for the development of the Empa site in Thun as a result of investments made. By contrast, EPFL's performance obligations rose by the same amount (+CHF 3m).

30 Financial risk management and additional information about financial instruments

General

Financial risk management is embedded in the general risk management of the ETH Domain, in respect of which annual reports are made to the ETH Board (see Annual Report, chapter on Risk Situation and Risk Management, p. 44).

Financial risk management primarily addresses credit risk (default risk) and liquidity risk as well as market risk (interest rate, foreign currency and other price risk).

The focus of risk management remains on credit risk. There are guidelines governing the investment of financial resources in order to reduce credit and market risk. The counterparties to a large proportion of the receivables and claims arising from financial assets are of high credit standing and solvency. Risk concentrations only exist in respect of those counterparties, which is why credit risk is regarded as low. Furthermore, there are receivables and financial assets in foreign currencies which are hedged according to prevailing circumstances in order to minimise the risk.

Compliance with and the effectiveness of the guidelines are ensured by the internal control system (ICS).

Credit and default risk

The maximum exposure to credit risk corresponds to the carrying amounts in the balance sheet. The actual risk is very low due to the fact that the counterparties to a large proportion of the financial assets are the Federal Government and other public-sector institutions. Table 55 shows the maximum exposure to credit risk.

Liquidity risk

The ETH Domain has processes and principles in place which guarantee that adequate liquidity is available to settle current and future obligations. This includes maintaining an adequate reserve of liquidity and tradeable securities.

Financial liabilities arise, most notably, from current operating liabilities and leasing liabilities. Under normal circumstances, expenses and investments are financed with self-generated funds. In some cases, investments are financed through lease agreements. Financial liabilities include a liability due to the donated right at EPFL (Microcity) which is recorded in the balance sheet. It is treated as a finance lease but does not represent a liquidity risk. Table 56 shows the maturities of the financial liabilities.

The entities controlled by the institutions of the ETH Domain may raise funds on the financial market.

All financial liabilities are covered by liquidity and by short-term deposits with the Federal Government. Liquidity risk is low.

Table 55: Maximum exposure to credit risk

CHF millions	Total	Federal Government	European Commission FP *	SNSF, Innosuisse, OASI social service, Suva	SNB and banks with government guarantee	Postfinance and other banks	Other counter-parties
	31.12.2018						
Cash and cash equivalents	852	574	–	–	21	256	–
Receivables from non-exchange transactions	1,528	110	358	493	–	–	567
Receivables from exchange transactions	36	2	–	–	–	–	34
Financial assets and loans	1,441	1,163	–	–	–	18	260
Prepaid expenses and accrued income	14	1	–	–	–	–	13
Total	**3,871**	**1,850**	**358**	**493**	**21**	**274**	**874**
	31.12.2017						
Total previous period	**3,590**	**1,699**	**413**	**366**	**17**	**268**	**827**

* The remaining receivables due from the Federal Government (State Secretariat for Education, Research and Innovation SERI) under the bridging programme for Horizon 2020 and the receivables from European universities arising from EU research framework programmes are shown in the column headed European Commission.

Table 56: Contractual maturities of the financial liabilities

CHF millions	Total carrying amount	Total contract value	Up to 1 year	1–5 years	More than 5 years
	31.12.2018				
Non-derivative financial liabilities					
Current liabilities	179	179	179	–	–
Leasing liabilities	294	413	17	68	328
Financial liabilities	83	83	7	22	54
Accrued expenses and deferred income	48	48	48	–	–
Derivative financial liabilities	**1**	**1**	**1**	**–**	**–**
Total	**605**	**724**	**252**	**90**	**382**
	31.12.2017				
Total previous period	**603**	**722**	**231**	**90**	**400**

Market risk

Interest rate and price risk

Interest rate risk is not hedged. A one percentage point increase or decrease in the interest rate would increase or reduce surplus or deficit by around CHF 16m.

The bonds under the asset management mandates are also taken into account in analysing interest rate risk. The other trading positions (excluding bonds) largely consist of equity funds holding both international and Swiss equities. A 10% decrease in price would reduce surplus or deficit by CHF 14m.

Most of the trading positions exposed to a price risk are held under asset management mandates with Swiss banks.

The ETH Board issued the investment guidelines based on Art. 34*c* paragraph 2 of the ETH Act (SR 414.110), which came into effect on 1 January 2008. The two Federal Institutes of Technology and the four research institutes defined their own investment strategies on this basis. A model is operated for the selection of the relevant portfolio optimised for the investment strategy of the asset management mandate. This model is used to reconcile the risk associated with the assets and the risk capability of ETH Zurich and a value fluctuation reserve is formed accordingly. EPFL reviews the defined strategy quarterly.

Foreign currency risk

Most foreign currency receivables are in euros and US dollars; they are hedged using derivative financial instruments according to prevailing circumstances. Most foreign currency risks in asset management mandates are hedged. Net of hedges, a fluctuation in the exchange rate of these two currencies of +/−10% would impact on the statement of financial performance as follows:

Table 57: Sensitivity to foreign currency risk

	31.12.2018					31.12.2017				
CHF millions	Total	CHF	EUR	USD	Other	Total	CHF	EUR	USD	Other
Net currency balance	**2,595**	**2,598**	**−29**	**10**	**16**	**2,346**	**2,314**	**10**	**4**	**17**
Sensitivityaffecting financial performance +/-10%			−3	1				1	0	
Closing rate			1.1265	0.9855				1.1701	0.9743	

The net currency balance for the other currencies category is primarily related to the asset management mandates and the consolidated entity in Singapore, controlled by ETH Zurich.

Capital management

Managed capital is defined as equity excluding valuation reserves. The ETH Domain seeks to create a solid equity base. This base will enable the implementation of the performance mandate to be guaranteed. Legal regulations prohibit the institutions of the ETH Domain and the ETH Board from raising funds in the capital market.

Estimation of fair value

Because of their short-term maturity, the carrying amount of cash and cash equivalents and the carrying amounts of current loans, fixed deposits, receivables and current liabilities are a reasonable approximation of fair value.

The fair value of non-current receivables from non-exchange transactions and non-current loans is calculated on the basis of the payments falling due in the future, which are discounted at market interest rates.

The fair value of available-for-sale financial assets is based on actual values, provided they can be determined reliably, or reflects their costs.

The fair value of fixed-interest financial liabilities which are not traded publicly is estimated on the basis of payments due in the future and discounted at market interest rates. The fair value of fixed-interest financial assets and liabilities which are traded publicly is based upon stock market quotations on the reporting date.

The fair value of finance lease liabilities is estimated on the basis of payments falling due in the future, which are discounted at market interest rates.

Classes and categories of financial instruments, by carrying amount and fair value

Table 58: Classes and categories of financial instruments

CHF millions	Loans and receivables	At fair value through surplus or deficit	Available for sale	Financial liabilities measured at amortised cost	Total carrying amount	Total fair value
	31.12.2018					
Cash and cash equivalents	852				852	852
Receivables from non-exchange transactions	1,528				1,528	1,528
Receivables from exchange transactions	36				36	36
Financial assets and loans	1,165	265	12		1,441	1,441
Prepaid expenses and accrued income	14				14	14
Financial liabilities *	–	1	–	604	605	605
	31.12.2017					
Financial assets **	3,298	277	14	–	3,589	3,589
Financial liabilities *	–	1	–	602	603	603

* Current liabilities, Finance lease liabilities, Other financial liabilities, Accrued expenses and deferred income

** Cash and cash equivalents, Receivables from non-exchange transactions, Receivables from exchange transactions, Financial assets and loans, Prepaid expenses and accrued income

The ETH Domain does not hold any held-to-maturity financial assets.

Hierarchy levels of the financial instruments measured at the fair value

Financial instruments measured at fair value are required to be disclosed within a three-level valuation hierarchy:

- Level 1: quoted prices in an active market for identical assets and liabilities;
- Level 2: Valuation techniques where all significant inputs are based on observable market data;
- Level 3: Valuation techniques where significant inputs are not based on observable market data.

Table 59: Fair value hierarchy

	31.12.2018				31.12.2017			
CHF millions	Carrying amount/fair value	Level 1	Level 2	Level 3	Carrying amount/fair value	Level 1	Level 2	Level 3
Financial assets	276	265	6	5	290	277	6	7
Financial liabilities	1	–	1	–	1	–	1	–

Net surplus or deficit by category

Table 60: Net surplus or deficit by category

CHF millions	31.12.2018 Loans and receivables	At fair value through surplus or deficit	Available for sale	Financial liabilities
Interest income (+) / interest expense (–)	4	2		–10
Income from investments		3	–	
Change in fair value		–16		
Currency translation differences, net	–4	–		–
Impairments	–		–1	
Reversal of impairment	–			
Gains and losses reclassified from equity to the statement of financial performance			–	
Net surplus or deficit recorded in the statement of financial performance	**–**	**–11**	**–1**	**–10**
Net surplus or deficit recognised in equity	**–**	**–**	**–2**	**–**
Total net surplus or deficit by category	**–**	**–11**	**–3**	**–10**
	31.12.2017			
Total net surplus or deficit by category previous year	**3**	**19**	**3**	**–10**

Interest expense and changes in fair value have had the biggest impact on net income. Further information can be found in Note 15 Financial Result.

31 Contingent liabilities and contingent assets

Contingent liabilities

Table 61: Contingent liabilities

CHF millions	31.12.2018	31.12.2017	Change absolute
Guarantees	–	–	–
Warranties	1	1	–
Litigations	–	3	–2
Other	265	269	–3
Total contingent liabilities	**267**	**272**	**–6**

There are still two warranties for the total amount of CHF 1m at EPFL to cover possible foreign customs demands within the scope of cross-border transactions. They are not limited by time.

EPFL shows the following other contingent liabilities:

- Biotech Campus: CHF 239m and repairs CHF 14m: EPFL, the University of Geneva and the Campus Biotech Geneva foundation hold joint and several liability from leasing relationships until 30 June 2043.
- Joint and several liability in respect of rental payments for the Agora building. This amount corresponds to the risk for EPFL if both parties (CHUV, UNIL) were to default (CHF 3m) by 31 May 2026.
- An audit by the European Commission raised an objection regarding the eligibility of certain project costs. An extrapolation of these facts led to an estimated maximum risk of CHF 9m.

Contingent assets

Table 62: Contingent assets

CHF millions	31.12.2018	31.12.2017	Change absolute
Off-balance sheet receivables	2	1	1
Other	–	1	–1
Total contingent assets	**2**	**2**	**–**

At the end of 2018, ETH Zurich had quantifiable (unrecognised) contingent assets of CHF 2m, mainly relating to ongoing bankruptcy proceedings and claims for damages. Furthermore, this item includes research funding and donations from third parties which meet the essential characteristics of an asset, but where (ETH Zurich's) pro rata share of future inflow of funds cannot be reliably quantified. This entails the donation by Hansjörg Wyss for the Wyss Translational Center Zurich, as well as the remaining inheritance from Dr Branco Weiss for the Society in Science Programme (The Branco Weiss Fellowship) to support young researchers.

32 Financial commitments

Table 63: Financial commitments

CHF millions	31.12.2018	31.12.2017	Change absolute
Financial commitments <= 1 year	62	52	10
Financial commitments from 1 to 5 years	14	15	–1
Financial commitments > 5 years	–	–	–
No due date / indefinite	–	–	–
Total financial commitments	**76**	**67**	**9**

The financial commitments relate in particular to plant construction projects in the area of the SwissFEL / ATHOS, ESS and SINQ upgrade at the PSI (totalling CHF 60m, + CHF 7m). Part of the rise relates to EPFL (+ CHF 4m) to CHF 8m for unfulfilled orders for technical-scientific equipment.

Financial commitments for the acquisition of technical-scientific equipment have also been reported by ETH Zurich (CHF 4m), Empa (CHF 4m) and Eawag (CHF 1m).

In addition, EPFL has contractually undertaken to bear the following costs:

– 40% of the cost of the Centre Wyss at the Wyss Center for Bio- and Neuroengineering Foundation in Geneva.
– Expenses for major maintenance work, as well as conversion and renovation costs for the interior fittings and operating facilities of the Microcity building in Neuchâtel.

33 Operating lease

Table 64: Operating lease

CHF millions	2018	2017	Change absolute
DUE DATES			
Due within 1 year	30	32	−1
Due within 1 to 5 years	83	91	−8
Due after more than 5 years	149	179	−30
Future minimum payments for non-cancellable operating lease as of 31.12.	**262**	**302**	**−39**
LEASING EXPENSES			
Minimum lease payments	33	31	2
Payments from subleasing	1	1	–
Leasing payments of current period	**34**	**32**	**2**
ADDITIONAL DETAILS			
Future revenue from sublease (from non-cancellable contracts)	1	1	–

As in the previous year, the largest lease agreements relate to EPFL (future minimum lease payments in the amount of CHF 130m) and to ETH Zurich (future minimum leasing payments in the amount of CHF 127m). This primarily involves the rental of various properties. Empa has reported CHF 5m for lease agreements and other leasing liabilities.

The leasing payments for the reporting period are mainly divided between ETH Zurich (CHF 25m), EPFL (CHF 7m) and Empa (CHF 2m).

34 Remuneration of key management personnel

Table 65: Remuneration of key management personnel

CHF millions	2018	2017	Change absolute
ETH Board	1	1	–
Directorate	2	2	–
Remuneration of key personnel	**3**	**3**	**–**

Table 66: Key personnel

Full-time equivalent	2018	2017	Change absolute
ETH Board *	2.16	2.10	0.06
Directorate **	6.00	6.00	–
Number of persons (in full-time positions)	**8.16**	**8.10**	**–**

* Workload: President of the ETH Board: 80%, Vice President of the ETH Board: 16% (prior year 10%), one member of the ETH Board: 70%, remaining five members of the ETH Board without management functions: 10% each

** Board members with management functions and the directors of the other research institutes.

35 Relationships with controlled and associated entities

Controlled entities

The following institutions, the ETH Board and the entities listed in table 67 are fully consolidated.

Institutions and ETH Board:
- Board of the Federal Institutes of Technology (ETH Board), Zurich and Bern
- ETH Zurich, Zurich
- ETH Lausanne (EPFL), Lausanne
- Paul Scherrer Institute (PSI), Villigen
- Swiss Federal Institute for Forest, Snow and Landscape Research (WSL), Birmensdorf and Davos
- Swiss Federal Laboratories for Materials Testing and Research (Empa), Dübendorf, St. Gallen and Thun
- Swiss Federal Institute of Aquatic Science and Technology (Eawag), Dübendorf and Kastanienbaum

Table 67: Controlled entities

	Legal form	Nature of collaboration / business activity	Domicile	Jurisdiction	Currency	Proportion of voting rights or equity share (in %) 31.12.2018[1]		Reporting date used
ETH Singapore SEC Ltd	Ltd	Strengthening the global position of Switzerland and Singapore in the field of environmental sustainability and engaging in appropriate research collaborations.	Singapore	Singapore	SGD	100	100	31.03.2018
Rübel Geobotanical Research Institute Foundation[2]	Foundation	Promoting geobotanical science (plant sociology, plant ecology, plant distribution, vegetation history).	Zurich	Switzerland	CHF	57	100	31.12.2017
Fondation pour les Etudiants de l'EPFL	Foundation	The foundation supports students at EPFL if their financial circumstances are making it much more difficult for them to complete their degree.	Lausanne	Switzerland	CHF	60	100	31.12.2018
EPFL Innovation Park Foundation	Foundation	The foundation owns and maintains buildings for promising start-ups (technology park).	Ecublens (VD)	Switzerland	CHF	42	100	31.12.2018
Société du Quartier de l'Innovation (SQIE)	Simple partnership	The simple partnership maintains buildings on a finance leasing basis for larger companies.	Ecublens (VD)	Switzerland	CHF	100	100	31.12.2018
Société du Quartier Nord de l'EPFL (SQNE)[3]	Simple partnership	The simple partnership maintains various buildings on a finance leasing basis and operates a convention centre, student halls of residences, shops and a hotel.	Ecublens (VD)	Switzerland	CHF	80	100	31.12.2018

1 With the exception of Société du Quartier Nord de l'EPFL (75% of the voting rights in the previous year), the figures are unchanged compared to the previous year.
2 The remaining 43% of the voting rights in the foundation are held by people determined by the founder. However, ETH Zurich has a 100% share in the capital of the foundation.
3 EPFL has an interest of 100% in SQNE by way of a direct holding of 90%, an indirect holding of 5% through the fully consolidated Foundation EPFL Innovation Park and another indirect interest of 5% through the associated entity Foundation Les Bois Chamblard in which EPFL holds an interest of 100%. Due to the interest of 100% in the Foundation Les Bois Chamblard, SQNE is fully consolidated without consideration and presentation of non-controlling interests.

Associated entities

All associated entities listed are entered in the balance sheet on the basis of the equity method.

Table 68: Associated entities

	Legal form	Nature of collaboration / business activity	Domicile	Jurisdiction	Currency	Proportion of voting rights or equity share (in %) 31.12.2018 [1]	
ETH Zurich Foundation [2]	Foundation	Promoting teaching and research at the Swiss Federal Institute of Technology Zurich	Zurich	Switzerland	CHF	15	100
Albert Lück Foundation	Foundation	Promoting teaching, research and study in the field of building and construction at ETH Zurich, initially in the current Department of Civil, Environmental and Geomatic Engineering and in its successor unit	Zurich	Switzerland	CHF	20	100
Student Housing Foundation	Foundation	Providing and operating low-cost housing for students in Zurich	Zurich	Switzerland	CHF	22	50
Archives of Contemporary History Foundation	Foundation	Promoting, safeguarding the long-term existence of and extending ETH Zurich's Archives of Contemporary History as a documentation and research centre for general and Swiss contemporary history	Zurich	Switzerland	CHF	25	100
Foundation for Contemporary Jewish History	Foundation	Setting up and promoting a documentation centre for contemporary Jewish history within ETH Zurich's Archives of Contemporary History	Zurich	Switzerland	CHF	20	100
Fondation Les Bois Chamblard	Foundation	The foundation provides infrastructure for the organisation of workshops and conferences.	Buchillon	Switzer-land	CHF	20	100
Fondation Campus Biotech Geneva	Foundation	The Biotech Campus is a centre of excellence in biotechnology and in life science research.	Geneva	Switzerland	CHF	25	50
Fondation du Centre Universitaire Protestant de Lausanne	Foundation	The foundation provides accommodation for students from EPFL and from the University of Lausanne.	Lausanne	Switzerland	CHF	29	60
Fondation "Institut d'Imagerie Moléculaire Translationnelle IIMT"	Foundation	The foundation awards grants and scholarships to researchers and academic staff of any nationality.	Geneva	Switzerland	CHF	50	50
DECTRIS LTD	Public limited company	Development and production of electronic measuring instruments for scientific and industrial applications	Baden	Switzerland	CHF	21	21

1 With the exception of Les Bois Chamblard Foundation (40% of the voting rights in the previous year), the figures are unchanged compared to the previous year.

2 Even though ETH Zurich has less than 20% of the voting rights in the ETH Zurich Foundation, ETH Zurich can still exercise considerable influence over the foundation and is also the sole beneficiary. For this reason, the ETH Zurich Foundation has been classified as an associated entity.

Restrictions

The ETH Domain does not have any access rights to the assets of the controlled or associated entities listed above. For instance, it cannot arrange a transfer of liquidity or access the funds of the entities in any other way.

Controlled and associated entities under the threshold according to the Ordinance on Finance and Accounting of the ETH Domain (OFA)

Details about the consolidation are specified in the Ordinance on Finance and Accounting of the ETH Domain. This Ordinance also defines thresholds to be taken into account in the consolidated financial statements. Entities which meet the criteria for consolidation or for equity valuation but which come under these thresholds are to be disclosed as follows in accordance with Note 2 of the Ordinance on Finance and Accounting of the ETH Domain and are excluded from the consolidated financial statements of the ETH Domain:

Table 69: Entities below the thresholds according to the Finance and Accounting Regulations of the ETH Domain

	31.12.2018	31.12.2017
Controlled entities		
Quantity	8	8
Total assets (CHF million)	19	26
Associated entities		
Quantity	14	15
Total assets (CHF million)	48	44

36 Events after the reporting date

The ETH Board agreed the 2018 consolidated financial statements of the ETH Domain on 7 March 2019. No significant events have occurred prior to that date in the ETH Domain that would necessitate any disclosure regarding the consolidated financial statements of the ETH Domain as of 31 December 2018 or any adjustment thereto.

Auditors' report

EIDGENÖSSISCHE FINANZKONTROLLE
CONTRÔLE FÉDÉRAL DES FINANCES
CONTROLLO FEDERALE DELLE FINANZE
SWISS FEDERAL AUDIT OFFICE

Reg. Nr. 1.19041.932.00348.002

Report of the statutory auditor

to the Federal Council and the ETH Board

Consolidated financial statements of the Domain of the Swiss Federal Institutes of Technology for the year 2018

Report on the audit of the consolidated financial statements

Opinion

We have audited the consolidated financial statements of the Domain of the Swiss Federal Institutes of Technology (ETH Domain) which comprise the consolidated statement of financial performance 2018, the consolidated balance sheet as of 31 December 2018, the consolidated statement of changes in equity and the consolidated cash flow statement for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion the consolidated financial statements (pages 12 to 71) present fairly, in all material respects, the consolidated financial position of the ETH Domain as of 31 December 2018, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with the International Public Sector Accounting Standards (IPSAS) and legal requirements and the Accounting Manual for the ETH Domain.

Basis for Opinion

We conducted our audit in accordance with Swiss Law, International Standards on Auditing (ISAs), Swiss Auditing Standards and article 35*ater* of the Federal Act on the Federal Institutes of Technology (SR 414.110). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated financial statements section of our report. We are independent based on the Federal Auditing Act (SR 614.0) and the requirements of the audit profession and we have fulfilled our other ethical responsibilities in accordance with these requirements.

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

Other information in the Annual Report

The ETH Board is responsible for the other information in the annual report. The other information comprises all information included in the annual report, but does not include the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information in the annual report and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information in the annual report and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. In this context, please refer to the section Report on other legal and regulatory requirements at the end of this report.

Responsibilities of the ETH Board for the consolidated financial statements

The ETH Board is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the International Public Sector Accounting Standards (IPSAS) and the legal requirements (Ordinance on the ETH Domain, SR 414.110.3; Ordinance on the Finance and Accounting of the ETH Domain, SR 414.123; Accounting Manual for the ETH Domain), and for such internal control as the ETH Board determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the ETH Board is responsible for assessing the ETH Domain's ability to continue as a going concern, disclosing, as applicable, matters related to going concern.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law, ISAs and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Swiss law, ISA's and Swiss Auditing Standards, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit 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 ETH Domain's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.
- Conclude on the appropriateness of the ETH Board's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the ETH Domain's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the notes to the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the ETH Domain to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the ETH Domain to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the audit of the consolidated financial statements. We remain solely responsible for our audit opinion.

We communicate with the Audit Committee of the ETH Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on other legal and regulatory requirements

In accordance with the Federal Auditing Act and Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of the consolidated financial statements according to the instructions of the ETH Board.

In accordance with Art. 21 par. 2 of the Ordinance on the Finance and Accounting of the ETH Domain, we confirm that no contradictions exist between the personnel reporting in the annual report (management report) and the consolidated financial statements. Likewise, we confirm that no contradictions exist between the financial figures in the annual report (management report) and the consolidated financial statements.

Furthermore, in accordance with Art. 21 par. 2 of the Ordinance on the Finance and Accounting of the ETH Domain, we confirm that risk management has been appropriately conducted according to the instructions of the ETH Board.

We recommend that the consolidated financial statements submitted to you be approved.

Berne, 8 March 2019

SWISS FEDERAL AUDIT OFFICE

Eric-Serge Jeannet
Licensed audit expert

Martin Köhli
Licensed audit expert

Publication data

Publisher: ETH Board, Häldeliweg 15, CH-8092 Zurich
Project lead and editorial office: ETH Board Finances / Communication, Zurich
Design and layout: Hej GmbH, Zurich
Translation and proofreading: comtexto AG, Zurich
Publishing system: ns.publish, mms solutions AG, Zurich
Printing: Kromer Print AG, Lenzburg
Press date: 21 March 2019

The Financial Report is published in German, French and English. The German version of the consolidated financial statements shall be binding. The Financial Report is available electronically at www.ethboard.ch/financialreport2018.

Rounding differences: The figures presented in this document may not correspond precisely to the total amounts presented in the tables. Changes are calculated on unrounded amounts and may differ from a figure that is based on the rounded amounts presented in the tables.

MIX
Paper from responsible sources
FSC® C008110
FSC
www.fsc.org

ETH Board
Board of the Swiss Federal
Institutes of Technology

Zurich:
Häldeliweg 15
8092 Zurich

Bern:
Hirschengraben 3
3011 Bern

www.ethboard.ch