ETH DOMAIN

# 2017

## Financial Report
of the ETH Board on the ETH Domain

# Contents



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.

# Report on the 2017 Financial Year

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. In 2015 and 2016, transitional provisions applied regarding the application of the International Public Sector Accounting Standards (IPSAS). They were fully implemented in 2017, which meant that the 2017 financial statements were prepared and certified by the auditors in compliance with the IPSAS, which was a significant step and success from the perspective of financial reporting.

The consolidated financial statements are based on the concept of consumption of resources, i. e. the revenue and expense are limited to the period to which they belong. This is in contrast to the financing statement, which is based on the consumption of money on the basis of receipts and expenditures. The annual financial statement is also more comprehensive. In addition to the financial performance, the financial position and net assets are also shown.

The comparability of the 2017 financial statements with the previous years is influenced significantly by two effects: the implementation of the aforementioned transitional provisions to the IPSAS, as well as the new standard in relation to net defined benefit liabilities (IPSAS 39), in particular the switch to the net interest approach. In addition, the strategic objectives set for the ETH Domain by the Swiss Federal Council for the ERI 2017–2020 period have applied since 2017.

The expanded scope of consolidation, one of the transitional provisions implemented, was most reflected in the financial statements. By the end of 2016, the six institutions of the ETH Domain and the ETH Board have exclusively been included in the consolidated financial statement. Since 1 January 2017 all the entities have been incorporated which are controlled by the institutions of the ETH Domain or by the ETH Board, or over which they can exercise significant influence. Impacts in terms of absolute figures are evident in all parts of the financial statements. ETH Zurich and EPFL each have controlled, fully consolidated entities. Both of them and the PSI also included the investments in the entities in which they have significant influence (associated entities) in their financial statements.

The consolidated financial statements for 2017 show two positive developments: revenue from third-party funding once again exceeded the high figures from the previous year, and there was only a modest development in salaries and wages within personnel expenses. Personnel expenses rose in total, which was also reflected in the decline in the annual result. This development mainly resulted from the first-time application of the net interest approach in the reporting year in the calculation of net pension costs (IPSAS 39). The considerable increase in equity (CHF 880m, without annual profit) is due mainly to the reduction in negative reserves from the valuation of the net defined benefit liabilities (CHF +606m) due to changes in actuarial assumptions. The implementation of the transitional provisions had an impact of CHF +271m.

## Consolidated statement of financial performance

| CHF millions | 2015 | 2016 | 2017 |
|---|---|---|---|
| Operating revenue | 3,475 | 3,598 | 3,698 |
| Changes to previous year | 1% | 4% | 3% |
| Operating expenses | 3,252 | 3,314 | 3,515 |
| Changes to previous year | 1% | 2% | 6% |
| Net finance income/expense | –9 | 5 | 13 |
| Surplus (+) or deficit (–) | 214 | 289 | 209 |
| Third-party funds relative to operating revenue | 28% | 29% | 28% |
| Personnel expenses relative to operating revenue | 59% | 58% | 62% |

### Operating revenue

During the reporting year, operating revenue rose by a total of CHF 100m or 3%.

Total federal contribution, which accounted for 72% (2016: 71%) of operating revenue, consisted of the federal financial contribution of CHF 2,378m (2016: CHF 2,289m) and the Federal contribution to accommodation of CHF 278m (2016: CHF 277m). The latter matched the accommodation expense for the use of government-owned real estate, as shown in the operating expenses; therefore, the two items cancelled each other out in the surplus or deficit. Further information about the federal financial contribution and about the federal contribution to accommodation can be found in the Notes to the consolidated financial statements, 7 Total federal contribution.

During the reporting year, revenue from third-party funding accounted for 28% of the total operating revenue (2016: 29%). Due to the increased total federal contribution, the share in the reporting year fell by one percentage, whereas the very high volume from the previous year was exceeded by a further CHF 9m.

In addition to the total federal contribution, the revenue from research contributions, mandates and scientific services of CHF 743m (2016: CHF 773m) is the most important component of the operating revenue. It decreased in the reporting year. The other aspects of operating revenue developed as follows. Revenue from donations and bequests exceeded the encouraging level from the previous year (2017: CHF 120m; 2016: CHF 115m). The growth in the number of students and doctoral students was reflected in the higher revenue from tuition fees and other utilisation fees (2017: CHF 39m; 2016: CHF 35m). There was relatively strong growth on other revenue (2017: CHF 140m; 2016: CHF 110m); key to this were the entities which were consolidated for the first time in 2017.

The revenue from research contributions, mandates and scientific services is mostly recognised according to the stage of completion of the project in the accounting period based on the resources consumed (Cost of Completion method).

In the reporting year, the revenue from research contributions, mandates and scientific services fell by CHF 30m or 4%. Whether the trend is actually declining, as it appears, can only be judged with reference to activities on the balance sheet (receivables/dedicated third-party funds). Both items were well up on 2016, which suggests that the revenue from research contributions will remain at the high level or tend to rise (also refer to the following section on Consolidated balance sheet, receivables and dedicated third-party funds).

The categories within the research contributions have developed in different ways.

The strongest revenue growth was achieved in 2017 in projects which are supported by two important federal funding organisations. The revenue from the research activities supported by the Commission for Technology and Innovation (CTI)/Innosuisse[1] increased by CHF 12m on the previous year on account of the current project phase; among other things, the operation of networked inter-university research 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 participates in projects of all eight SCCER projects, seven of them in a leading capacity. As in the previous year, a high degree of implementation was achieved in Swiss National Science Foundation (SNSF) projects, which was reflected in higher revenue (CHF +3m).

The project revenue from the EU Framework Programmes for Research and Innovation (FP) virtually reached the level from the previous year, confirming the positive trend from previous years. The revenue included Horizon 2020 projects (2014–2020) which have now started, while projects from the $7^{th}$ FP (2007–2013) have been completed, including the ramp-up phase of FET research flagship The Human Brain Project.

Revenue from cooperation with the private sector was down on 2016 (CHF –5m). Research activities which are mainly based on project mandates with exchange transactions have proved to be very volatile in a long-term comparison.

The sharp drop in revenue from special federal funding of applied research (CHF –22m) is primarily attributable to the exceptionally high figure from the previous year, involving the financing of two professorships at ETH Zurich.

The remaining project-oriented third-party resources include contributions from cooperation with cantons, universities and international organisations. The previous year had been marked by larger individual events, such as NEST (Empa), SwissFEL (PSI), the EPFL Valais Wallis project, which did not return in 2017, ultimately resulting in a reduction in revenue (CHF –15m) on the previous year. This even exceeded the CHF +12m effect from the consolidation of the new entities.

## Operating expenses

Operating expenses increased by CHF 201m or +6% in the reporting year.

The services provided in research and teaching require a high level of personnel resources. Therefore, the personnel expenses accounted for the largest portion of the operating expenses (2017: 66%, 2016: 63%). The sharp rise in personnel expenses (CHF +202m) therefore also explains the increase in the overall operating expenses as the changes in transfer and other operating expenses on the one hand and depreciations on the other approximately offset each other. These components in operating expenses have individually developed as follows: other operating expenses in 2017 amounted to CHF 958m (2016: CHF 964m). In the reporting year, the entities which were consolidated for the first time contributed CHF 11m to other operating expenses. This increase was in contrast with losses from receivables, which accounted for CHF 16m in other operating costs in the previous year. The other operating expenses also include the accommodation expenses for the use of state-owned real estate. The transfer expenses were reduced primarily due to the transfer contributions last paid in the previous year for special initiatives and key focus programmes, which expired with the ERI 2013–2016 period (2017: CHF 42m; 2016: CHF 63m). The higher depreciations (2017: CHF 212m; 2016: CHF 185m) reflected both the high investment volumes of the previous years, as well as the additions due to entities which were consolidated for the first time (CHF +14m).

One of the main reasons for the fact that personnel expenses are higher is the application of the new standard for calculating the net defined benefit liabilities (IPSAS 39). As a main result of the switch to the net interest approach, there was a CHF 165m rise in net pension costs. This effect explains over 80% of the rise in personnel expenses, as well as in overall operating expenses; further details can be found in the Notes to the consolidated financial statements, 12 Personnel expenses and 28 Net defined benefit liabilities. Salaries and wages amounted to CHF 30m more than the previous year's value. This represents an increase of 2% (2016: +1%). The entities which have newly been consolidated are recognised in the accounts with CHF 12m of salaries and wages, accounting for almost half of this increase. The pay measures decided upon by the ETH Board for 2017, as well as modest growth in employment numbers in the institutions of the ETH Domain also contributed towards the rise. In 2017, there was no compensation for inflation allowance.

There was an average of 18,181 full-time equivalents (FTEs) (excluding apprentices, interns) in the reporting year. They are not comparable with the previous year because the previous year's figures correspond to the year-end numbers of full-time equivalents. In addition, the 2017 figure comprised the average number of full-time equivalents from the newly consolidated entities (139 FTEs, excluding apprentices, interns).[2]

Changes in expenses for social, accident and sickness insurance were consistent with salaries and wages.

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

[2] The annual report does not show the annual average value but the year end figure. This is 18,631.6 FTEs (including apprentices and interns).

## Consolidated balance sheet

| CHF millions | 31.12.2015 | 31.12.2016 | 31.12.2017 |
|---|---|---|---|
| Current assets | 1,994 | 2,149 | 2,771 |
| Non-current assets | 2,693 | 2,892 | 3,066 |
| **Total assets** | **4,686** | **5,041** | **5,837** |
| Liabilities | 4,321 | 4,918 | 4,626 |
| Valuation reserves | –1,186 | –1,717 | –1,109 |
| Dedicated reserves | 745 | 812 | 949 |
| Free reserves | 851 | 886 | 965 |
| Other equity | –45 | 142 | 407 |
| Equity | 365 | 123 | 1,212 |
| **Total liabilities and equity** | **4,686** | **5,041** | **5,837** |

The total assets for the ETH Domain were up CHF 796m or 16% on the previous year. The most important components affected by the changes are shown below.

### Effect from the implementation of the transitional provisions

The fact that the controlled and associated entities (see Note 35 for details) have been included in the consolidated financial statements for the first time led to a rise of around CHF 415m in the total assets. This effect arose, in particular, when allowing for the leases on real estate (finance leasing) in connection with the ordinary EPFL-controlled companies SQNE and SQIE (CHF 227m), as well as through the proportionate valuation and recognition of ten associated entities (CHF 134m) as of 1 January 2017. The donated right to use the Microcity building in Neuchatel, which was received at no expense, has been recognised in the accounts as an in-kind contribution, causing a further increase of around CHF 60m in the reporting year.

### Receivables and dedicated third-party funds (in context)

Receivables and dedicated third-party funds accounted for about a quarter of the total assets, as had been the case in the previous year.

At the end of 2017, receivables amounted to CHF 1,431m (2016: CHF 1,299m), irrespective of time patterns. The largest items by some distance were receivables from non-exchange transactions from SNSF, from EU research projects and from other donors. At the time of recognition, the receivables are generally in line with the agreed contract totals, which will be reduced with every payment. The existing unsettled receivables at the end of 2017, amounting to CHF 1,393m (2016: CHF 1,264m) reflect the outstanding financing from current research projects or from guaranteed donations. These outstanding receivables from project transactions compared with dedicated third-party funds amounting to CHF 1,428m (2016: CHF 1,333m). They represent the performance obligations from current research projects and mandates from contracts with non-exchange transactions. During the reporting year, progress in projects leads to decreases; newly received research contracts lead to an increase. The rise of CHF 94m or 7% shows that there was a higher volume of projects or research available, for which services still have to be provided in the years ahead, at the end of 2017 than had been the case in 2016.

## Property, plant and equipment

At the end of 2017, the balance sheet value of property, plant and equipment was up CHF 278m on the 2016 figure at CHF 1,863m, which included additions due to the newly-consolidated entities (CHF +256m, see section on the Effect of the implementation of the transitional provisions, above). With the exception of finance leasing of CHF 232m, 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 property, plant and equipment account for almost one-third of the total assets.

## Net defined benefit liabilities

Net defined benefit liabilities are down CHF 678m on the previous year at CHF 1,894m. The decrease is primarily due to the restatement as of 1 January 2017 (CHF 174m for the Swiss Federal Pension Fund PUBLICA) arising from the change to the new standard for net defined benefit liabilities (IPSAS 39), as well as to the change in actuarial assumptions (increase in the discount rate, the reduction in salary development and interest on retirement savings). For further explanations, refer to Note 28 of the consolidated financial statements, net defined benefit liabilities.

## Equity

During the reporting year, the total equity rose from CHF 123m to CHF 1,212m. The following items have mainly contributed towards the increase of CHF 1,089m: as expected, the greatest effect stemmed from the change in valuation reserves in the area of defined benefit liabilities (CHF +606m). The reserves contain the cumulative gains from the valuation of the net defined benefit liabilities according to IPSAS 39 and are calculated on the basis of annually adjusted assumptions, leading to fluctuations in equity. Adjustments from the restatement as of 1 January 2017 resulted in an increase in equity of CHF 271m in total. There was a further effect from the 2017 annual result (CHF +209m).

The dedicated reserves increased by CHF 136m to CHF 949m and the free reserves by CHF 79m to CHF 965m. The new austerity measures introduced by the institutions have also contributed to the increase in the free reserves.

# Consolidated cash flow statement

| CHF millions | 2015 | 2016 | 2017 |
|---|---|---|---|
| Cash flows from operating activities | 321 | 452 | 397 |
| Cash flows from investing activities | –602 | –354 | –297 |
| Cash flows from financing activities | –1 | –1 | –9 |
| **Total cash flow** | **–282** | **96** | **91** |

The cash flow statement shows the cash flow from operating activities and from investment and financing activities. The figures are shown according to the indirect method.

## Cash flow from operating activities

The total cash flow from operating activities (CHF 397m) is composed of the annual result of CHF 209m adjusted to allow for the expenses and revenues that do not affect the liquidity in the statement of financial performance, as well as the changes from the balance sheet.

## Cash flow from investing activities

The balance of cash flow from investing activities in 2017 amounted to CHF –297m (2016: CHF –354m). The drop compared to the previous year is primarily due to the lower additions in property, plant and equipment and in co-financing in the reporting year. In partial compensation for that, the additions in current and non-current financial assets exceeded the accrual of the previous year. Higher divestment also impacted upon cash flow from investments. Overall, cash flow from investing activities was down CHF 57m on 2016.

The cash outflow of CHF –297m results to a large extent from the outflow of funds from additions in property, plant and equipment.

The total additions in property, plant and equipment of CHF 228m (2016: CHF 276m) include user-specific leasehold improvements and the expenditures for the operating facilities (building costs plan BKP 3/BKP 9). These investments greatly increased in the past few years because of the brisk building activities of the ETH Domain and the upgrading of the infrastructure. In the reporting year, some CHF 62m of the total federal contribution (2016: CHF 79m) was invested in ETH Domain-owned property. Despite the drop on the previous year, their proportion of the investments remains high.

The selection of larger investments in property, plant and equipment in 2017 includes the following properties or investment items (including investments in assets under construction):

- ETH Zurich: The largest investment in movable assets concerns the in-situ electron microscope (Scope M) at around CHF 5m. Larger investments have been made in information technology: a total investment of CHF 7m was made in the CSCS for the Piz Daint high-powered computer (additional cabinets). Furthermore, CHF 2m was spent on the expansion of the Euler Cluster (Euler IV). ETH Zurich invested a total of CHF 12m in the area of 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 the WRO (biosystems) and HCP (neuro-surgery) buildings. Almost CHF 1m of the total amount was financed from third-party funds.
- EPFL: The largest procurement applies to the spectrometer for the Laboratoire de résonance magnétique (CHF 3m). In terms of information technology procurement, EPFL particularly made investments in the two clusters for Informatique scientifique et support applicatif (CHF 2m) and for the Laboratoire de photonique et mesures quantiques (CHF 1m). In the area of the user-specific fixtures and facilities, as well as for the purposes of leasehold improvements, EPFL invested around CHF 3m (BKP 3).
- PSI: The major portion was in technical facilities for construction in the field of technology and measurements or in user-specific improvements (BKP 3) to the SwissFEL/ATHOS beamlines (total of around CHF 31m).
- WSL: Various devices in connection with isotope analysis (almost CHF 1m).
- Empa: Mass spectrometer for Advanced Analytical Technologies (around CHF 1m). Empa invested around CHF 1m in NEST and in user-specific improvements (BKP 3).
- Eawag: Procurement of spectrometers (almost CHF 2m).

## Cash flows from financing activities

There was a net cash outflow of around CHF 9m in financing activities. The higher amount compared to previous years was mainly due to the finance leasing of the entities being consolidated for the first time.

The balance of CHF +91m from the cash flow results from the change in the balance sheet item "Cash and cash equivalents".

# Consolidated financial statements

## Consolidated statement of financial performance

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

| CHF millions | Notes | Actual 2016 * | Budget 2017 | Actual 2017 | Change to Actual absolute |
|---|---|---|---|---|---|
| **Operating result** | | | | | |
| Federal financial contribution | | 2,289 | 2,378 | 2,378 | 89 |
| Federal contribution to accommodation | | 277 | 278 | 278 | 2 |
| **Total federal contribution** | **7** | **2,565** | **2,656** | **2,656** | **91** |
| **Tuition fees and other utilisation fees** | **8** | **35** | **35** | **39** | **3** |
| Swiss National Science Foundation (SNSF) | | 257 | 250 | 260 | 3 |
| Commission for Technology and Innovation (CTI) | | 51 | 49 | 63 | 12 |
| Special federal funding of applied research | | 99 | 74 | 78 | −22 |
| EU Framework Programmes for Research and Innovation (FP) | | 142 | 134 | 139 | −3 |
| Industryoriented research (private sector) | | 135 | 130 | 129 | −5 |
| Other project-oriented third-party funding (incl. cantons, municipalities, international organisations) | | 89 | 77 | 74 | −15 |
| **Research contributions, mandates and scientific services** | **9** | **773** | **715** | **743** | **−30** |
| **Donations and bequests** | **10** | **115** | **67** | **120** | **5** |
| **Other revenue** | **11** | **110** | **113** | **140** | **30** |
| **Operating revenue** | | **3,598** | **3,587** | **3,698** | **100** |
| Personnel expenses | 12, 28 | 2,101 | 2,299 | 2,303 | 202 |
| Other operating expenses | 13 | 964 | 966 | 958 | −6 |
| Depreciation | 21 | 185 | 206 | 212 | 28 |
| Transfer expenses | 14 | 63 | 155 | 42 | −22 |
| **Operating expenses** | | **3,314** | **3,626** | **3,515** | **201** |
| **Operating result** | | **284** | **−39** | **182** | **−102** |
| Net finance income/expense | 15 | 5 | 1 | 13 | 8 |
| Share of surplus (+) or deficit (−) of associated entities and joint ventures | 20 | – | – | 14 | 14 |
| **Surplus (+) or deficit (−)** | | **289** | **−39** | **209** | **−79** |

* No restatement of previous year, restatement performed as of 1 January 2017

# Consolidated balance sheet

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

| CHF millions | Notes | 31.12.2016* | 31.12.2017 | Change absolute |
|---|---|---|---|---|
| **Current assets** | | | | |
| Cash and cash equivalents | 16 | 627 | 733 | 106 |
| Current receivables from non-exchange transactions | 17 | 133 | 555 | 422 |
| Current receivables from exchange transactions | 17 | 35 | 38 | 3 |
| Current financial assets and loans | 22 | 1,300 | 1,389 | 89 |
| Inventories | 18 | 11 | 10 | -1 |
| Prepaid expenses and accrued income | 19 | 43 | 45 | 2 |
| **Total current assets** | | **2,149** | **2,771** | **622** |
| **Non-current assets** | | | | |
| Property, plant and equipment | 21 | 1,585 | 1,863 | 278 |
| Intangible assets | 21 | 6 | 68 | 62 |
| Non-current receivables from non-exchange transactions | 17 | 1,131 | 838 | -293 |
| Non-current receivables from exchange transactions | 17 | – | – | – |
| Investments in associated entities and joint ventures | 20 | 3 | 147 | 144 |
| Non-current financial assets and loans | 22 | 35 | 26 | -9 |
| Co-financing | 23 | 133 | 125 | -9 |
| **Total non-current assets** | | **2,892** | **3,066** | **174** |
| **Total assets** | | **5,041** | **5,837** | **796** |
| **Liabilities** | | | | |
| Current liabilities | 24 | 240 | 172 | -68 |
| Current financial liabilities | 25 | 2 | 16 | 14 |
| Accrued expenses and deferred income | 26 | 140 | 134 | -6 |
| Short-term provisions | 27 | 89 | 103 | 14 |
| **Short-term liabilities** | | **471** | **425** | **-46** |
| Dedicated third-party funds | 29 | 1,333 | 1,428 | 94 |
| Non-current financial liabilities | 25 | 42 | 374 | 332 |
| Net defined benefit liabilities | 28 | 2,572 | 1,894 | -678 |
| Long-term provisions | 27 | 500 | 505 | 5 |
| **Long-term liabilities** | | **4,448** | **4,201** | **-247** |
| **Total liabilities** | | **4,918** | **4,626** | **-293** |
| **Equity** | | | | |
| Valuation reserves | | -1,717 | -1,109 | 608 |
| Dedicated reserves | | 812 | 949 | 136 |
| Free reserves | | 886 | 965 | 79 |
| Co-financing of state-owned real estate | 23 | 133 | 125 | -9 |
| Reserves from associated entities | 20 | – | 147 | 147 |
| Accumulated surplus (+)/deficit (–) | | 9 | 135 | 126 |
| **Total equity** | | **123** | **1,212** | **1,089** |
| **Total liabilities and equity** | | **5,041** | **5,837** | **796** |

* No restatement of previous year, restatement performed as of 1 January 2017

# Consolidated statement of changes in equity

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

| CHF millions | **Valuation reserves** | Dedicated donations and bequests | Teaching and research reserves | Infrastructure and administration reserves | **Dedicated reserves** | **Free reserves** | **Co-financing of state-owned real estate** | **Reserves from associated entities** | **Accumulated surplus (+)/ deficit (–)** | **Total equity** |
|---|---|---|---|---|---|---|---|---|---|---|
| **2016** | | | | | | | | | | |
| **As of 01.01.2016** | **–1,186** | **451** | **249** | **45** | **745** | **851** | **124** | **–** | **–169** | **365** |
| Surplus (+) or deficit (–) | | | | | | | | | **289** | **289** |
| *Items directly recognised in equity:* | | | | | | | | | | |
| Revaluation of financial assets | **–** | | | | | | | | | **–** |
| Change from defined benefit liability | **–531** | | | | | | | | | **–531** |
| Hedging transactions | **–** | | | | | | | | | **–** |
| Total items directly recognised in equity | **–531** | | | | | | | | | **–531** |
| Reclassifications in equity | **–** | 23 | 31 | 12 | **67** | **35** | **9** | **–** | **–111** | **–** |
| Currency translations | | | | | | | | | **–** | **–** |
| **Total changes** | **–531** | 23 | 31 | 12 | **67** | **35** | **9** | **–** | **178** | **–242** |
| **As of 31.12.2016** | **–1,717** | **474** | **281** | **57** | **812** | **886** | **133** | **–** | **9** | **123** |
| **2017** | | | | | | | | | | |
| Changes from restatement as of 01.01.2017 | **–** | – | – | – | **–** | **–** | **–** | **134** | **137** | **271** |
| **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** |
| Change from 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 | | | | | | | | **–** | **–** | **–** |
| Reclassifications in equity | | 37 | 69 | 29 | **136** | **79** | **–9** | **13** | **–219** | **–** |
| Currency translations | | | | | | | | | **–** | **–** |
| **Total changes** | **608** | 37 | 69 | 29 | **136** | **79** | **–9** | **13** | **–10** | **817** |
| **As of 31.12.2017** | **–1,109** | **512** | **350** | **86** | **949** | **965** | **125** | **147** | **135** | **1,212** |

During the reporting year, the total equity rose from CHF 123m to CHF 1,212m. The entire equity is attributed to the owner. The following factors led to the massive increase in equity of CHF +1,089m compared to the previous year. Firstly, an increase from **adjustments from the restatement as of 1 January 2017** of CHF +271m; secondly, an increase resulting from the **change in defined benefit liability** (CHF +606m); and thirdly, the **2017 surplus or deficit** (CHF +209m) contributed towards the rise in equity.

## Valuation reserves

The main components of negative valuation reserves comprise the accumulated actuarial losses on defined benefit pension plans (CHF –1,113m). These reserves contain the accumulated amount of profits and losses, recognised directly in equity, from the valuation of the net defined benefit liabilities in accordance with IPSAS 39 (see Note 28 Net defined benefit liabilities). The strong positive trend (CHF +606m) is primarily due to the change in assumptions for the calculation of net defined benefit liabilities under IPSAS 39, as well as the application of the net interest approach with the switch from IPSAS 25 to IPSAS 39. The higher discount rate and the reduction in salary development, as well as in the interest on retirement savings have had a significant impact on this.

The revaluation reserves for financial assets according to IPSAS 29 have risen by CHF 2m to CHF 5m.

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 reserves for teaching and research include electoral and appointment commitments amounting to CHF 129m (2016: CHF 139m).

## Free reserves

Free reserves were up around CHF 79m on the previous year at CHF 965m. They come from various sources including revenue surpluses. Each unit within the ETH Domain or the ETH Board has discretion as to how to use the free reserves. The funds are used to benefit future teaching and research projects or are used to smooth losses in revenue among other things.

## 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 CHF 9m decline compared to 2016 is the residual value from additions and one disposal in 2017, reduced by the annual depreciation on the co-financing recognised under non-current assets.

## Accumulated surplus (+)/deficit (–)

The accumulated surplus of CHF 135m as of 31 December 2017 is the residual amount of total equity less the reserve items shown separately. It shows the status of the accumulated results on the reporting date and includes the surplus or deficit carried forward, the surplus or deficit for the period and the reclassifications in equity. The adjustments from the restatement as of 1 January 2017 are also included as a one-off transaction. Reclassifications in equity represent the surplus or deficit achieved in the year of the report, 2017 (CHF +209m), and allocated to the reserves (CHF –219m). The reclassification of surplus/deficit during the accounting year, to be more precise at the time of preparing the annual financial statements, is a specific accounting procedure which is applied in the ETH Domain. Consequently, the allocation to the reserve items in equity does not take place via the surplus/deficit carried forward on 1 January of the next year, but rather is part of the items recognised in the annual financial statements within the reporting year as of 31 December. The accumulated surplus of CHF 9m as of 31 December 2016 increased to CHF 135m as of 31 December 2017 due to the restatement and due to the ETH Domain's consolidated annual result for 2017.

# Consolidated cash flow statement

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

| CHF millions | Notes | 2016* | 2017 | Change absolute |
|---|---|---|---|---|
| **Cash flows from operating activities** | | | | |
| **Surplus (+) or deficit (–)** | | **289** | **209** | **–79** |
| Depreciation | 21 | 185 | 212 | 28 |
| Share of surplus or deficit of associated entities and joint ventures | 20 | – | –14 | –14 |
| Net finance income/expense (non-cash) | 15 | –3 | –17 | –13 |
| Increase/decrease in net working capital | | 80 | –79 | –159 |
| Increase/decrease in net defined benefit liabilities | 28 | –59 | 99 | 158 |
| Increase/decrease in provisions | 27 | 7 | 17 | 11 |
| Increase/decrease in non-current receivables | 17 | –89 | –71 | 18 |
| Increase/decrease in dedicated third-party funds | 29 | 41 | 28 | –13 |
| Reclassification and other (non-cash) income | | 2 | 11 | 10 |
| **Cash flows from operating activities** | | **452** | **397** | **–55** |
| **Cash flows from investing activities** | | | | |
| **Investments** | | | | |
| Purchase of property, plant and equipment | 21 | –276 | –228 | 48 |
| Purchase of intangible assets | 21 | –2 | –4 | –1 |
| Increase in co-financing | 23 | –12 | –1 | 11 |
| Increase in loans | 22 | –4 | – | 4 |
| Increase in current and non-current financial assets | 22 | –93 | –108 | –16 |
| **Total investments** | | **–387** | **–341** | **46** |
| **Divestments** | | | | |
| Disposal of property, plant and equipment | 21 | 1 | 1 | – |
| Disposal of intangible assets | 21 | – | – | – |
| Decrease in co-financing | 23 | – | 5 | 5 |
| Decrease in loans | 22 | 1 | – | –1 |
| Decrease in current and non-current financial assets | 22 | 30 | 37 | 6 |
| **Total divestments** | | **32** | **43** | **11** |
| Dividends received from associated entities and Joint Ventures | 20 | – | 1 | 1 |
| **Cash flows from investing activities** | | **–354** | **–297** | **57** |
| **Cash flows from financing activities** | | | | |
| Increase in short-term and long-term financial liabilities | 25 | – | 1 | 1 |
| Decrease in short-term and long-term financial liabilities | 25 | –1 | –10 | –8 |
| **Cash flows from financing activities** | | **–1** | **–9** | **–7** |
| **Total cash flows** | | **96** | **91** | **–5** |
| Changes from restatement as of 01.01.2017 | | – | 15 | - |
| **Cash and cash equivalents at the beginning of the period** | **16** | **531** | **642** | **111** |
| **Total cash flows** | | **96** | **91** | **–5** |
| **Cash and cash equivalents at the end of the period** | **16** | **627** | **733** | **106** |
| Net effect of currency translation on cash and cash equivalents | | – | – | – |
| **Cash flows from operating activities comprises::** | | | | |
| Dividends received | | 4 | 2 | –2 |
| Interest received | | 2 | 2 | – |
| Interest paid | | –2 | –10 | –8 |

* No restatement of previous year, restatement performed as of 1 January 2017

# 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. 30 ff.).

## 2 | Basis of accounting

These financial statements are consolidated financial statements covering the reporting period from 1 January 2017 to 31 December 2017. The reporting date is 31 December 2017.

### Legal basis

The accounting system for the ETH Domain is based on the following legal basis (including directives and regulations):

- 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 concerning the Domain of the Swiss Federal Institutes of Technology of 19 November 2003 (Ordinance on the ETH Domain; SR 414.110.3)
- Ordinance on Finance and Accounting of the ETH Domain of 5 December 2014 (SR 414.123)
- Accounting Manual for the ETH Domain (version 6.2)

### Accounting standards

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

### IPSAS standards that have been published but not yet applied

The following IPSAS had been published up to the reporting date. This will only become effective at a later date and has not been early applied to these consolidated financial statements.

| | |
|---|---|
| IPSAS 40 | Public Sector Combinations |

The above standard comes into effect on 1 January 2019. The impact on the consolidated financial statements will be analysed systematically. 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.

## Restatement of the consolidated financial statements of the ETH Domain as of 1 January 2017

In 2015, the ETH Domain transitioned to IPSAS, except for the six items below, which were applied on 1 January 2017:

1. IPSAS standards 6–8 or now 34–38 had not been applied previously (Consolidated and Separate Financial Statements, Investments in associates, Investements in joint ventures) to investments held over 20%.
2. Based on the contractual provisions, the receivables from non-exchange transactions (IPSAS 23) were not completely divided into a current and non-current portion.
3. The provisions stated in the Accounting Manual for the ETH Domain for "holiday and overtime payments including long service awards already earned" were not fully implemented.
4. The provisions on disclosure of financial instruments (IPSAS 30) were not fully implemented.
5. The provisions on finance leases (IPSAS 13) were not applied for EPFL. Instead, they were treated in a similar way to the former accounting method (based on the Accounting Manual for the ETH Domain). Any commitments made were disclosed in the Notes to the annual financial statements.
6. The provisions of IPSAS 23.76 et seq. on transfers of services in-kind and goods in-kind were not applied.

IPSAS 39 Employee Benefits, which comes into effect on 1 January 2018, superseding IPSAS 25, was early adopted on 1 January 2017.

As the ETH Domain prepared complete IPSAS financial statements for the first time for the period to 31 December 2017 (First IPSAS Financial Statements), the simplified procedure could be applied for the restatement in accordance with IPSAS 33 (First-time Adoption of Accrual Basis IPSAS).

The previous year's figures are presented in accordance with the annual consolidated financial statements for 2016; the effective date for the restatement is 1 January 2017.

The financial implications of the implementation of the above six items and the application of IPSAS 39 are recognised in the restatement dated 1 January 2017. They are explained in this section.

Table 5: Restatement of the consolidated balance sheet of the ETH Domain as of 1 January 2017

| | | Reclassifications | Revaluation | | | | | |
|---|---|---|---|---|---|---|---|---|
| CHF millions | Balance sheet 31.12.2016 (before restatement) | Distinction of current/ non-current receivables from non-exchange transactions | Expanded scope of consolidation | Net defined benefit liabilities (IPSAS 39) | In-kind services received | Other | Total changes | Opening balance sheet as of 01.01.2017 |
| Total current assets | 2,149 | 421 | 34 | | | | 455 | 2,604 |
| Total non-current assets | 2,892 | -421 | 381 | | 62 | 54 | 77 | 2,969 |
| **Total assets** | **5,041** | **–** | **415** | | **62** | **54** | **532** | **5,573** |
| Short-term liabilities | 471 | | 16 | | 2 | 2 | 20 | 491 |
| Long-term liabilities | 4,447 | | 300 | -174 | 60 | 54 | 240 | 4,688 |
| Total liabilities | 4,918 | | 317 | -174 | 62 | 56 | 261 | 5,179 |
| Valuation reserves | -1,717 | | – | | | | – | -1,717 |
| Dedicated reserves | 812 | | – | | | | – | 813 |
| Free reserves | 886 | | – | | | | – | 886 |
| Reserves from associated entities | – | | 134 | | | | 134 | 134 |
| Other equity | 142 | – | -36 | 174 | – | -2 | 137 | 278 |
| Total equity | 123 | – | 99 | 174 | – | -2 | 271 | 394 |
| **Total liabilities and equity** | **5,041** | **–** | **415** | **–** | **62** | **54** | **532** | **5,573** |

## Reclassifications

- Receivables from non-exchange transactions were previously reported as non-current at ETH Zurich and EPFL. Based on the contracts, they have now been split into current and non-current parts for the first time. CHF 421m were identified as current and reclassified accordingly (transitional provision 2).

## Revaluation

- The first time application of IPSAS standards 34–38 (consolidated and separate financial statements, investments in associates and joint ventures) leads to an increase in the balance sheet total of CHF 415m (transitional provisions 1 and 5). This effect arises, in particular, when allowing for the leases on real estate in connection with the ordinary partnership entities SQNE and SQIE (CHF 227m), controlled by EPFL, and as a result of the proportionate evaluation and accounting of ten associated entities (CHF 134m). For further details, reference is also made to the Note 20 Investments in associated entities, as well as 35 Relationships with controlled and associated entities.
- The SQNE and SQIE lease contracts are based on 99-year leases whereby EPFL is entitled to terminate them after 30 years. In this case, the real estate will be transferred to the Federal Government in return for a contractually fixed compensation payment unless a subsequent lessee can be found who will continue to lease the premises at identical terms. The compensation payment is indexed and fixed at 78.9% of the construction costs. When these leases were taken into account for the first time, various assessments or interpretations of the IPSAS were conducted (see explanation in Note 4 Estimates and management judgements). These assessments resulted in classifying these contracts for accounting purposes as finance leases with a rental term of thirty years. Termination of the leases after 30 years is currently viewed 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. Given the fact that operating costs have proved to be higher than originally planned, EPFL has also identified an impairment on the SQNE premises amounting to CHF 52m. The impairment calculation is based on the higher than expected costs, extrapolated over the remaining term of

the lease. The current value in use represents the recoverable service amount. This resulted in the following adjustments to the opening values as of 1 January 2017:
  - Increase of CHF 325m in the gross purchase value of the buildings
  - Increase of CHF 98m in the accumulated depreciation and impairment on buildings
  - Increase of CHF 294m in financial liabilities
  - Reduction of CHF 67m in equity
- The first-time application of IPSAS 39 (Employee Benefits) has reduced net defined benefit liabilities by CHF 174m. This is primarily attributable to the inclusion of employee contributions as a negative benefit. In addition, the net interest approach and extended disclosures in the notes are to be implemented (see Note 28 Net defined benefit obligations).
- The provisions of IPSAS 23.76 ff. regarding the transfer of services in-kind and goods in-kind were applied in full in all entities of the ETH Domain in the reporting year and prompted the recognition of a donated right at EPFL of CHF 62m (transitional provision 6).
- The other revaluations have factored in a project contract at EPFL in the order of CHF 54m, which had been concluded in previous years, and almost CHF 2m for the complete implementation of the regulations for "holiday and overtime payments including long service awards already earned" (transitional provision 3).

The full implementation of the disclosure of financial instruments had no impact on the balance sheet as the recognition of and accounting policies for financial instruments have already been applied since the transition to IPSAS in 2015 (transitional provision 4).

# 3 | Accounting policies

The accounting policies are derived from the basis of accounting. The consolidated financial statements present a true and fair view of ETH Domain's financial position, financial performance and cash flows, presenting revenue and expenses in the period in which they occur (accrual accounting).

For the ETH Domain's financing purposes, the ETH Board produces the consolidated financial statements with a balance sheet, statement of financial performance, cash flow statement, statement of changes in equity, and Notes, as well as the annual budget.

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

## Consolidation principles

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

Control means that the controlling institution or the ETH Board is exposed, or has rights, to variable economic benefits from its involvement with the entity, and has the ability to affect the nature or amount of such benefits through its power over the other entity.

The institution or the ETH Board has power when it has existing rights, that give it the current ability to direct the relevant activities, i.e., the activities that significantly affect the nature or amount of the economic benefits from its involvement with the other entity. This is normally the case if the institution or the ETH Board directly or indirectly holds more than 50% of the voting rights or of voting rights that can potentially be exercised. These entities are fully consolidated.

All intercompany receivables, liabilities, expenses and revenue from internal transactions within the economic entity, as well as unrealised intercompany surpluses or deficits are eliminated in the course of consolidation.

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

Investments in associated entities with a 20% to 50% share of the voting rights and/or in entities in which the institution or the ETH Board has significant influence, but not control, are not included in the consolidated figures, but rather are recognised using the equity method and are reported under the position investments in associated entities. In the equity method, the value of the investment is initially recognized at cost and adjusted thereafter to reflect any changes in the share of the net assets of the associated entity. Significant balances and transactions with these entities are shown separately as items with associated entities and joint ventures.

Consolidation is performed on the basis of the uniform accounting policies and normally on the basis of the separate financial statements of the institutions, of the ETH Board and of the controlled entities prepared as at the same reporting date. Due to time constraints, there may be cases where it is not possible to use the financial statements for the period ended 31 December 2017. Therefore, for the less significant financial statements compared to the consolidated financial statements for the ETH Domain, the financial statements from the previous year were used and adjusted for significant transactions between the reporting date for the previous year and 31 December 2017.

Investments newly acquired in the course of the reporting period are included in the consolidated financial statements provided that they meet the consolidation criteria and exceed the thresholds defined in the Ordinance on Finance and Accounting of the ETH Domain two years in succession. Sold entities are included up to the time when control is lost, which generally corresponds to the date of the sale. Profits realised from the sale of controlled and associated entities as well as joint ventures are recognised in the finance result.

Changes to the investment quotas of the ETH Domain in controlled entities which do not lead to the loss of control over any of those entities are recognised in the balance sheet as an equity transaction. The book values of the shares held by the ETH Domain and those of the non-controlling interests are adjusted to reflect changes in the share quotas in the controlled entities. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly under equity and attributable to the ETH Domain.

If the ETH Domain loses control of a controlled entity, the deconsolidation gain or loss is recognised in surplus or deficit. This is determined from the difference between

- the total amount of the fair value of the consideration received and the fair value of the shares retained and
- the carrying amount of the assets (including any goodwill) and of the liabilities of the controlled entity and of any non-controlling interests.

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

## Currency translation

The reporting is prepared in Swiss francs (CHF). All figures are shown in millions of Swiss francs (CHF m) unless indicated otherwise.

Transactions in foreign currencies are translated using the exchange rate valid at the time of the transaction. The date on which the transaction is first recognised is to be used for the transaction date.

For each reporting date, monetary items in foreign currencies are translated using the closing rate. Resulting currency-translation differences are recognised under finance income or finance expense. Non-monetary items are translated using the exchange rate on the day of the transaction.

Assets and liabilities of controlled entities with a different functional currency are translated using the closing rate; the statement of financial performance and cash flow statement are translated using the average rate. Translation differences resulting from the translation of net assets and the statement of financial performance are recognised under equity.

The main currencies and their exchange rates are:

Table 6: Main currencies

| | | Closing rate as of | | Average rate |
|---|---|---|---|---|
| Currency | Entity | 31.12.2016 | 31.12.2017 | 2017 |
| EUR | 1 | 1.0717 | 1.1701 | 1.1116 |
| USD | 1 | 1.0160 | 0.9743 | 0.9846 |
| GBP | 1 | 1.2582 | 1.3168 | 1.2681 |
| JPY | 1,000 | 8.7080 | 8.6460 | 8.7780 |
| SGD | 1 | 0.7040 | 0.7289 | 0.7130 |

## Revenue recognition

Each inflow of funds into an entity is to be examined to see whether it is revenue from exchange transactions (IPSAS 9) or revenue from non-exchange transactions (IPSAS 23). If there is a revenue from exchange transactions (IPSAS 9), the revenue will always be recognised at the time the goods and services are delivered. In the case of project contracts, the performance obligation which has not yet been provided is allocated to liabilities. The revenue is billed and itemised to reflect the progress of the project based on the costs incurred in the reporting period.

For revenue from non-exchange transactions (IPSAS 23), a distinction is to be made between whether or not there is an obligation to pay/repay. Should any such obligation apply, the relevant amount will be recognised as borrowed capital when the contract is concluded and will be released to income in step with the progress of the project.

If there is neither a corresponding exchange nor an obligation to pay or repay as stipulated in IPSAS 23, as is frequently the case with donations, a revenue that affects net income is to be booked in the reporting year which increases the net assets/equity of the entity accordingly.

The revenue is structured as follows:

**Total federal contribution**

The grants by the Federal Government or Parliament to the ETH Domain include the federal financial contribution (in the narrower sense) and the federal contribution to accommodation. Both these types of revenue are classed as revenue from non-exchange transactions (IPSAS 23).

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

The contribution towards accommodation corresponds to the accommodation expenses, equating to a rent calculated for the state-owned buildings used by the institutions of the ETH Domain. The accommodation expenditure is recognised as part of the other operating expense.

**Tuition fees and other utilisation fees**

Revenue from tuition fees and other utilisation fees are to be classed as revenue from exchange transactions (IPSAS 9). In principle, the revenue is recognised at the time the goods or services are delivered. If significant services are provided beyond the reporting date, an accrued income is recognised.

**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 largely involves multi-year projects. Depending on the characteristics of the contributions, they are classed as revenue from exchange transactions or revenue from non-exchange transactions. The type of revenue recognised depends on whether there is a performance or repayment obligation. Revenue from non-exchange transactions (IPSAS 23) is recognised if there is a receivable that is legally binding, the inflow of funds is probable, and there is no further performance obligation. Usually, a performance obligation exists and revenue is recognised as the project progresses in the accounting period based on the resources consumed.

**Donations and bequests**
Revenue from donations and bequests is to be classed as a revenue from non-exchange transactions (IPSAS 23). Donations without any conditional risk of repayment are generally recognised in full as revenue when the contract is signed.

The donations also include the in-kind contributions, which are differentiated as follows:
- **Goods in-kind** are entered at the time the contract is signed. Assets are posted in accordance with prevailing regulations (capitalisation and depreciation).
- **Donated rights** within the meaning of operational leasing are posted as expenses and revenue; those within the meaning of finance leasing are assessed at their fair value at the time the contract is concluded, if known, and they are depreciated over the period of useful life. If a performance obligation exists, a liability is recorded, and the revenue will be realised annually in accordance with the services provided. If there is no performance obligation, the revenue will be implemented upon capitalisation of the capital good as a whole.
- Received material **services in-kind** are not recorded but are disclosed and commented upon in the Notes.

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**
Other service revenue and revenue from real estate, inter alia, is counted as other revenue. This revenue is classed as revenue from exchange transactions (IPSAS 9). In principle, the revenue is recognised at the time the goods or services are delivered. If the service is provided beyond the reporting date, an accrued income is recognised.

## Cash and cash equivalents
Cash and cash equivalents include cash in hand, demand deposits and term deposits with financial institutions, as well as funds that are invested with the Federal Government with a maximum term of 90 days. Cash and cash equivalents are valued at nominal value.

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

For receivables from non-exchange transactions (IPSAS 23), such as from SNSF and EU projects and from other donors, an inflow of funds in relation to the total contractual project volume is probable. Therefore, the total project amount 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 from non-exchange transactions are stated at cost when the revenue is realised.

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

## Inventories
Inventories are valued at cost or net realisable value, whichever is lower. Costs are calculated using the weighted average method. For inventories that are difficult to sell, appropriate value adjustments are to be made.

## Property, plant and equipment

Property, plant and equipment items are recognised in the balance sheet at cost less accumulated depreciation. Depreciation is applied linearly according to the estimated period of useful life. The estimated periods of useful life are:

Table 7: 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 1m | 10 years | 10 years |
| Leasehold improvements > CHF 1m | 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] For property, plant and equipment with a value of CHF 1m or more, it is checked whether components (of a significant value with respect to the total value) need to be recognised and depreciated separately because they have a different useful life (component approach).
[2] The useful life depends on the type of building, the purpose it is used for and the building fabric (20–100 years). Assets under construction are not yet depreciated.

Capitalised leasehold improvements and installations in rented premises are depreciated over the estimated useful life or the lease period, whichever is shorter.

For incoming property, plant and equipment, it is checked whether components that represent a significant portion of the total value should be capitalised and depreciated separately because of their different periods of useful life (component approach).

Major renovations and value-enhancing investments that increase the economic benefit of a property, plant and equipment or extend its useful life are to be capitalised and depreciated over the estimated useful life. Costs merely for repairs and maintenance are recognised as an expense. Borrowing costs for assets under construction are capitalised.

The residual value of property, plant and equipment that is decommissioned 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 (e.g. teaching collections, art or historical collections, libraries) are not recognised as assets. An inventory of these items is kept.

## Intangible assets

Intangible assets are recognised at cost. For standard software, the depreciation is applied linearly over three years, with an effect on surplus or deficit. Other intangible assets are depreciated linearly over the estimated period of useful life, with a period of depreciation that is to be determined for each individual case.

## Impairments (property, plant and equipment and intangible assets)

Each year, property, plant and equipment as well as intangible assets are reviewed for any indications of impairment. If any such indications are found, an impairment test is carried out. If the carrying amount continually exceeds the value in use or the net realisable value, an impairment is recognised, with an effect on the surplus or deficit. 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.

## Lease

Leases for real estate, equipment, other movable assets and vehicles where the ETH Domain basically assumes all the risks and rewards associated with the ownership are to be treated as financial leases. The asset and liability from a financial lease are recognised at whichever is the lower of the fair value of the leased object or the present value of the minimum lease payments at the date when the lease starts. Each lease payment is divided into the reduction of the outstanding liability and the finance charge. The reduction is deducted from the capitalised 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 are recognised as expenses in the statement of financial performance according to the accrual principle.

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 purchased with the intention of generating short-term profits from market price fluctuations or if they are designated as financial assets at fair value (for instance, investments held that do not entitle the holder to exert a significant influence). Changes in value are recognised in surplus or deficit.

The other non-current financial investments which are held for an indefinite period and may be sold at any time for reasons of liquidation or as a response to changes in market conditions are classified as "available for sale" and recognised in the balance sheet at their purchase value if the fair value cannot be determined reliably. Gains and losses that are not realised are recognised in equity and only transferred to surplus or deficit when the financial assets are sold or decrease in value (impairment). The item "available for sale", for instance, includes investments which are not controlled or significantly influenced.

Loans granted and fixed deposits are to be recognised in the balance sheet either at amortised costs (nominal value under CHF 10m, as well as current loans and fixed deposits over CHF 10m) or at amortised costs using the effective interest method (non-current loans and fixed deposits over CHF 10m). The effective interest method allocates the difference between the acquisition cost and the repayment amount (premium/discount) over the period of the investment, using the net present value method. Impairments are made on the basis of a case-by-case assessment.

Derivative financial instruments are primarily to be used for the purpose of hedging an investment or as a strategic position. They are valued solely at fair values. Any value adjustments are usually recognised in surplus or deficit.

## Investment property

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

## Co-financing of state-owned real estate

Co-financing refers to third-party funding acquired by the ETH Domain that is used for building projects for the Federal Government's own properties.

Co-financing items are valued according to the valuation of the underlying properties, which the Federal Government recognises in the balance sheet at cost minus the accumulated depreciation. This means that the value of the co-financing items goes down in proportion to the ongoing depreciation. Co-financing items are reported with the same amounts in both the assets and in the liabilities (equity) of the balance sheet.

## Current liabilities

Current liabilities are usually recognised in the balance sheet on receipt of the invoice. Current accounts with third parties (including social insurance institutions) are also recognised in the balance sheet under this item. They are valued at the nominal value.

## Financial liabilities

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

## Provisions

Provisions are recognised when a past event leads to a present obligation, an outflow of funds is likely, and the amount can be estimated reliably.

## Net defined benefit liabilities

All employees and pensioners of the institutions of the ETH Domain, as well as of the staff and President of the ETH Board are insured under the pension scheme of the ETH Domain in the collective institution "Swiss Federal Pension Fund" (PUBLICA). There are no further significant pension schemes at the controlled entities, which is why any further statements in the text refer to the pension scheme of the ETH Domain with PUBLICA. The net defined benefit liabilities correspond to the present value of defined benefit obligations (DBO), measured according to the methodology in IPSAS 39, less the fair value of plan assets.

The defined benefit obligations are calculated by external actuarial experts annually using the Projected Unit Credit method ("PUC method"). The calculation is made based on information on the beneficiaries (salary, vested benefits, etc.) and relevant assumptions. The assumptions include both demographic (retirement rates, disability rates, mortality rates, etc.) and financial ones (salary development, pension development, discount rate, etc.). The amounts calculated are discounted to the valuation date by applying the discount rate. Changes in estimates of economic conditions can significantly affect defined benefit obligations.

Under the PUC method, benefit entitlements are added evenly over the number of years of service to be rendered (current service cost), rather than reflecting the actual distribution of retirement credits under the ETH Domain's pension scheme, where they are graduated and increase with age. The defined benefit obligations were valued based on the current membership data of the ETH Domain's pension scheme as of 31 October 2017, using actuarial assumptions as of 31 December 2017 (e.g. BVG 2015 actuarial tables), and on the plan provisions of the ETH Domain's pension scheme. The results were then adjusted using pro rata estimated cash flows as of 31 December 2017. The fair values of plan assets were used with reference to the estimated performance as of 31 December 2017.

The statement of financial performance includes the current service cost, the past service cost arising from plan amendments and curtailments, gains and losses from plan settlements, administrative costs as well as the interest expense from defined benefit obligations in personnel expenses.

The effects of plan amendments and curtailments (past service cost) that are deemed fully vested are recognised immediately in surplus or deficit in the period in which they occur. Actuarial and investment gains and losses on defined benefit plans are recognised directly in equity in the reporting period in which they occur.

Significant other long-term employee benefits (e.g. future long-service award) are also measured using the PUC method.

## Dedicated third-party funds

The liabilities from dedicated projects whose revenue has been classed as a revenue from non-exchange transactions (IPSAS 23) are recognised in the balance sheet as dedicated third-party funds in long-term liabilities as the projects usually last for several years and the short-term component of the liability cannot be determined.

The valuation is carried out by considering the outstanding performance obligation on the reporting date. The figure is calculated from the contractually agreed project total minus services performed before 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**

The following entries which do not affect surplus or deficit are made in the valuation reserves:

- **Revaluation reserves for financial assets** categorised as "available for sale" and recognised in the balance sheet at the fair value. Changes to the fair value are recognised in equity until the financial assets are sold.
- **Valuation reserves from defined benefit obligations**. Actuarial and investment gains and losses from defined benefit obligations or plan assets are recognised in equity without affecting the surplus or deficit.
- **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 as soon as the underlying hedged transaction has an effect on the surplus or deficit.

**Dedicated reserves**
The dedicated reserves under equity include:
– Donations and bequests
– Reserves for teaching and research (electoral/appointment commitments, teaching and research projects)
– Reserves for infrastructure and administration (value fluctuations, construction projects)

Dedicated reserves must have been generated (with the exception of electoral/appointment commitments). Recognition and release take place within the equity.

*Donations and bequests*
This item includes remaining funds that have, not yet been used from donations and bequests that do not qualify as borrowed capital but which are nonetheless tied to certain conditions. Freely available funds (without conditions) from donations and bequests are listed under free reserves.

*Reserve for teaching and research*
This item indicates that different commitments exist and corresponding reserves have had to be created to cover them. Commitments are subject to a resolution, generally by the Directorate/Executive Board, and must be able to be verified at any time.

In the majority of cases, this involves electoral commitments, i. e. funds granted to newly appointed professors within the scope of contractual agreements to enable them to set up their chair. These reserves are recognised when corresponding commitments have been made in writing, and an employment contract is in place. It is mandatory to set them up, even if the full reserves have not yet been generated. These appointment credits for teaching and research are generally used up within three to five years.

*Reserves for infrastructure and administration*
These include reserves for **value fluctuations of the securities portfolio** and **reserves for construction projects**.

The value fluctuation reserves are determined from the investment strategy; they serve as risk capital.

The reserve for construction projects relates to Federal Government funds that were granted and paid out for real estate projects but have not yet been used due to delays.

**Free reserves**
Free reserves include:
– **Free reserves that are at the disposal of the Executive Board or Directorate**. There are no external or internal conditions imposed which would restrict their freedom of disposal.
– **Free research reserves of the departments and the professors**. They derive primarily from the remaining balance of completed third-party funded projects. They serve teaching and research purposes, as well as to cover losses (e.g. short-term losses of earnings, foreign currency losses). They are not specifically earmarked in terms of time or purpose.

#### Co-financing of state-owned real estate

If third-party resources acquired by the ETH Domain are used for constructions projects in real estate where the real estate is owned by the Federal Government, this is referred to as co-financing. Firstly, the funds transferred to the Federal Government are recognised as co-financing under non-current assets; and secondly, the third-party funds recognised as revenue on the statement of financial performance are recognised as dedicated equity under the heading of co-financing.

#### Reserves from associated entities

This item includes valuation reserves from the inclusion of the share of equity of investments in associated entities which are measured applying the equity method.

#### Accumulated surplus (+)/deficit (–)

The item "Accumulated surplus (+)/deficit (–)" shows the status of the accumulated results as at the reporting date. It consists of the surplus or deficit carried forward, the surplus or deficit for the period and reclassifications in equity.

The surplus or deficit carried forward is accumulated annually as part of the appropriation of surplus or deficit. The portion of the surplus or deficit that has not yet been distributed is included in the surplus or deficit of the period. If currency translation adjustments of foreign, fully consolidated investments held arise during the consolidation, they are recognised under equity, without an effect on 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 defined as a possible asset from a past event whose existence first has to be confirmed by a future event. The occurrence of this event cannot be controlled. This only includes contingent assets from third parties.

### Financial commitments

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

### Cash flow statement

The cash flow statement shows the cash flows from operating activities and from investment and financing activities. The figures are shown according to the indirect method. This means operational cash flow based on the surplus or deficit for the period adjusted to reflect value flows which do not trigger any direct flow of funds. The "total cash flow" corresponds to the change in the "Cash and cash equivalents" item on the balance sheet.

### Segment reporting

The two sub-consolidated Federal Institutes of Technology and the four research institutes are defined as segments in the ETH Domain. The inter-segment transfers are based on the cost structure.

# 4 | Estimation uncertainty and management judgements

## Estimation uncertainty in the application of accounting policies

When preparing the consolidated financial statements in accordance with generally accepted accounting principles, it is necessary to use estimates and assumptions. The estimates and assumptions are based on past experience as well as other appropriate, substantiated factors, such as expectations about the occurrence of future events. Additionally, when applying the accounting policies, decisions have to be made that may have a significant effect on the figures shown in the consolidated financial statements. Although these estimates are based on management's best knowledge, the actual results may deviate from them.

This applies especially to the following items:

**Useful life and impairment of plant, property and equipment**

The useful life of plant, property and equipment is defined with due regard for current technical circumstances and past experiences and is reviewed periodically. A change in the estimate can impact upon the future level of the depreciations and the carrying amount.

Within the scope of the regular impairment test, estimates are also made which may result in a reduction of the carrying amount (impairment). When IPSAS 13 was applied for the first time at EPFL, an impairment on the assets of the ordinary partnership entity SQNE amounting to CHF 52m was recognised with effect from 1 January 2017 (see explanations in Note 2). This estimate includes assumptions about future cash flows to determine the value in use or fair value.

**Provisions**

Provisions have a higher reliance on estimates than other balance sheet items. This may lead to a higher or lower outflow of funds depending on the outcome of the respective situation.

**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 return on plan assets. These assumptions may deviate from the actual future development. The determination of the discount rate and future salary developments form an important part of the actuarial valuation.

**Recognition of donations**

The ETH Domain regularly receives donations in the form of assets. According to IPSAS these must first be recognised as assets at their fair value. Estimates have to be made by the management when assessing this fair value.

**Discounting rates**

Uniform discount rates are defined for the discounting of non-current receivables, liabilities and provisions. These are based on a risk-free interest rate and a credit risk premium. 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 (see also explanations in Note 2 Basis of accounting), EPFL applied the following significant management judgements when these leases were recognised for the first time:

- 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.
- The impairment of the leased assets of the ordinary partnership entity SQNE is calculated on the basis of IPSAS 21 "Impairment of non-cash-generating assets" because the main objective of this investment is to upgrade the EPFL site by adding conference and lecture facilities and student accommodation and the economic return is not the primary objective.

At ETH Zurich, the contract with Immobilien ETHFZ AG (a subsidiary of the associated entity ETH Zurich Foundation) regarding the use of a building on the Hönggerberg Campus was classified as a finance lease. This was particularly because the agreement transferred substantially all the risks and rewards incidental to ownership to ETH Zurich and the term of the lease covers most of the useful life of the building.

**Provisions**

Provisions set aside at the PSI for dismantling the accelerator facilities and the disposal of the radioactive components amounting to CHF 426m (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. The existing cost estimate, KS16 (*Kostenschätzung*, KS), which comprises the disposal of the radioactive waste in Switzerland as a whole, will be broken down into the relevant entities in 2018. This will coincide with the revaluation and presumably lead to an increase in the corresponding item due to the general increase in costs in KS16.

Due to the complexity, it is not possible to draft an annual statement regarding the development of the costs. In particular, the future options for the final storage of waste and the demand for a nuclear waste depository have a significant bearing on the costs development. Therefore, the provisions will not be calculated at prices valid at the time of disposal of the radioactive waste and corresponding discounting will not be applied.

# 5 | Comparison with the budget

Table 8: Statement of financial performance for the ETH Domain (consolidated) – Comparison between the 2017 statement and the definitive 2017 budget

| CHF millions | Budget 2017 | Budget 2017 | Budget 2017 | Actual 2017 | Changes to B2017 Final absolute |
|---|---|---|---|---|---|
| | Approved | Reconciliation of federal financial contribution / IPSAS effects | Final | | |
| **Operating result** | | | | | |
| Federal financial contribution | 2,353 | 25 | 2,378 | 2,378 | – |
| Federal contribution to accommodation | 278 | – | 278 | 278 | – |
| **Total federal contribution** | **2,632** | **25** | **2,656** | **2,656** | **–** |
| **Tuition fees and other utilisation fees** | **35** | **–** | **35** | **39** | **4** |
| Swiss National Science Foundation (SNSF) | 250 | – | 250 | 260 | 10 |
| Commission for Technology and Innovation (CTI) | 49 | – | 49 | 63 | 14 |
| Special federal funding of applied research | 74 | – | 74 | 78 | 4 |
| EU Framework Programmes for Research and Innovation (FP) | 134 | – | 134 | 139 | 5 |
| Industry-oriented research (private sector) | 130 | – | 130 | 129 | –1 |
| Other project-oriented third-party funding (incl. cantons, municipalities, international organisations) | 77 | – | 77 | 74 | –3 |
| **Research contributions, mandates and scientific services** | **715** | **–** | **715** | **743** | **28** |
| **Donations and bequests** | **67** | **–** | **67** | **120** | **53** |
| **Other revenue** | **113** | **–** | **113** | **140** | **27** |
| **Operating revenue** | **3,562** | **25** | **3,587** | **3,698** | **111** |
| Personnel expenses | 2,200 | 99 | 2,299 | 2,303 | 4 |
| Other operating expenses | 966 | – | 966 | 958 | –8 |
| Depreciation | 206 | – | 206 | 212 | 6 |
| Transfer expenses | 131 | 25 | 155 | 42 | –113 |
| **Operating expenses** | **3,503** | **124** | **3,626** | **3,515** | **–111** |
| **Operating result** | **59** | **–99** | **–39** | **182** | **221** |
| Net finance income/expense | 1 | – | 1 | 13 | 12 |
| Share of surplus (+) or deficit (–) of associated entities and joint ventures | – | – | – | 14 | 14 |
| **Surplus (+) or deficit (–)** | **60** | **–99** | **–39** | **209** | **248** |

Table 9: Reallocation of funds ETH Domain Budget 2017

| CHF millions | ETH Board | ETH Zurich | EPFL | PSI | WSL | Empa | Eawag | Total credit |
|---|---|---|---|---|---|---|---|---|
| **Status as at 01.01.2017 (Federal Resolution Ia as of 15.12.2016)** | **116.3** | **1,152.9** | **596.4** | **273.5** | **55.6** | **98.4** | **60.2** | **2,353.3** |
| Changes: | | | | | | | | |
| **Credit reallocation: flexibility** (Credit reallocation debited to Credit A202.0134 constructions of ETH Domain in acc. with FHV Art. 20 para. 5) | – | 21.6 | – | −1.1 | 1.3 | 3.2 | −0.3 | 24.6 |
| **Assignments by ETH Board:** | | | | | | | | |
| Strategic Proposals Teaching and Research | −20.0 | 4.9 | 10.6 | 4.5 | – | – | – | – |
| Credit allocation ETH Board: increased Base Budget | −31.2 | 16.0 | 9.1 | 3.6 | 0.6 | 1.2 | 0.7 | – |
| **Credit reallocations within Strategic Focus Areas** | | | | | | | | **–** |
| Personalized Health and Related Technologies | −8.0 | 5.0 | 3.0 | | | | | – |
| Advanced Manufacturing | −12.6 | 2.2 | 2.2 | 1.9 | | 6.3 | | – |
| Data Science | −6.4 | 0.7 | 5.7 | | | | | – |
| **Credit reallocations within Competence Centers ETH Domain** | **–** | **0.1** | **−0.2** | **−0.1** | **–** | **0.2** | **0.0** | **–** |
| **Various credit reallocations** | **–** | **−2.1** | **0.4** | **0.2** | **−0.0** | **2.3** | **−0.8** | **–** |
| **Status as of 31.12.2017** | **38.2** | **1,201.3** | **627.2** | **282.5** | **57.5** | **111.5** | **59.8** | **2,377.9** |

The consolidated surplus or deficit of the proposed budget for 2017, according to the ETH Board's 2017 budget report for the ETH Domain (end of July 2016) amounted to CHF 60m.

Compared to the approved budget for 2017, the definitive budget for 2017 contained adjustments resulting from the following processes:

Firstly, funds are transferred within the ETH Domain during the year.

The credit reallocation regarding the flexibility between the two credits of the payment scheme of the ETH Domain from 2017–2020 had no impact on the budgeted surplus or deficit for 2017 because there were matching rises in the revenue and expenses there.

However, net defined benefit liabilities according to IPSAS 39 impacted upon the budgeted annual result in 2017. The surplus or deficit according to the final budget for 2017 changed due to the adjustment over the approved budget for 2017 (CHF +60m) to CHF −39m.

However, the inclusion of the sub-consolidated entities at ETH Zurich, EPFL and Empa did not impact upon the budgeted annual result in 2017. The surplus or deficit according to the final budget for 2017 remained unchanged compared to the approved budget for 2017 (CHF 60m). Consequently, the sub-consolidation is part of the deviation between the actual financial statement and the budget for 2017.

The other figures in the 2017 budget reflect the approved budget in accordance with the 2017 Budget Report issued by the ETH Board for the ETH Domain or the Federal decree Ia on the 2017 Budget (Volume 3 of the Federal decrees), whereby the credits provided under the total federal contribution are part of Art. 1(2)(a). No mid-year adjustments were made to the credits under the total federal contribution by the Swiss Parliament during the reporting year, 2017. By contrast, the credit under the federal financial contribution was adjusted in 2017. The approved credit in 2017 amounted to CHF 2,353m. During the reporting year, 2017, the amount of CHF +25m (2016: CHF +36m) resulting from the budget-neutral credit reallocation (FHV Art. 20 paragraph 5 of the Swiss Financial Budget Ordinance *Finanzhaushaltverordnung*, FHV, SR 611.01) was deducted from the investment credit for buildings for the ETH Domain (credit A202.0134, VE 620 BBL) (in accordance with Art. 4(4) FD Ia proposed budget 2017). The financial contribution rose to CHF 2,378m as a result of this credit reallocation.

A key aspect of the Budget Report of the ETH Board for the ETH Domain is the payment scheme and the additional statistical information regarding the development of the two credits taking into account the budgetary framework of the ETH Domain for 2017–2020. Due to the credit reallocation within the context of flexibility (CHF –25m), the budgeted capital expenditure for 2017 for immovable non-current assets decreased from CHF 178m to CHF 153m (investments in government-owned buildings of the ETH Domain) and the federal financial contribution increased by the same amount at the same time. Note: However, the state-owned non-current assets are part of the financing statement but do not form part of the budget or financial statements of the ETH Domain. The credit for investments in buildings for the ETH Domain belongs, however, to the two credit items of the payment scheme for the ETH Domain, so that it is an integral part of the 2017 fund allocation by the ETH Board to the entities of the ETH Domain (see fig. 14 in the 2017 Budget Report 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. Consolidation eliminations are included in the ETH Board.

## Statement of financial performance by segments

Table 10: Statement of financial performance 2017 by segments

| | 2017 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CHF millions | ETH Zurich | EPFL | PSI | WSL | Empa | Eawag | ETH Board * | ETH Domain |
| **Operating result** | | | | | | | | |
| 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 |
| Commission for Technology and Innovation (CTI) | 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 (+) or deficit (–) of associated entities and joint ventures | 15 | –2 | 1 | – | – | – | – | 14 |
| **Surplus (+) or deficit (–)** | **137** | **12** | **15** | **4** | **20** | **6** | **15** | **209** |

* including eliminations and non-allocable transactions

Table 11: Statement of financial performance 2016 by segments

| CHF millions | ETH Zurich | EPFL | PSI | WSL | Empa | Eawag | ETH Board * | ETH Domain |
|---|---|---|---|---|---|---|---|---|
| | 2016 | | | | | | | |
| **Operating result** | | | | | | | | |
| Federal financial contribution | 1,128 | 612 | 299 | 49 | 108 | 57 | 35 | 2,289 |
| Federal contribution to accommodation | 161 | 69 | 23 | 4 | 16 | 4 | – | 277 |
| **Total federal contribution** | **1,289** | **681** | **322** | **53** | **124** | **61** | **35** | **2,565** |
| **Tuition fees and other utilisation fees** | **22** | **12** | **1** | **–** | **–** | **–** | **–** | **35** |
| Swiss National Science Foundation (SNSF) | 129 | 91 | 19 | 5 | 9 | 5 | – | 257 |
| Commission for Technology and Innovation (CTI) | 19 | 16 | 4 | – | 10 | 1 | – | 51 |
| Special federal funding of applied research | 40 | 15 | 17 | 14 | 9 | 5 | – | 99 |
| EU Framework Programmes for Research and Innovation (FP) | 57 | 63 | 13 | – | 6 | 3 | – | 142 |
| Industry-oriented research (private sector) | 49 | 37 | 29 | 1 | 17 | 2 | –1 | 135 |
| Other project-oriented third-party funding (incl. cantons, municipalities, international organisations) | 30 | 27 | 18 | 2 | 12 | 3 | –3 | 89 |
| **Research contributions, mandates and scientific services** | **324** | **249** | **100** | **22** | **63** | **18** | **–4** | **773** |
| **Donations and bequests** | **84** | **28** | **1** | **–** | **–** | **–** | **1** | **115** |
| **Other revenue** | **48** | **28** | **35** | **2** | **7** | **–** | **–10** | **110** |
| **Operating revenue** | **1,768** | **997** | **460** | **78** | **194** | **79** | **22** | **3,598** |
| Personnel expenses | 1,020 | 620 | 244 | 56 | 101 | 49 | 12 | 2,101 |
| Other operating expenses | 514 | 267 | 110 | 18 | 45 | 19 | –9 | 964 |
| Depreciation | 89 | 52 | 31 | 1 | 9 | 3 | – | 185 |
| Transfer expenses | 20 | 18 | – | 1 | – | 1 | 23 | 63 |
| **Operating expenses** | **1,642** | **957** | **385** | **76** | **155** | **72** | **26** | **3,314** |
| **Operating result** | **126** | **40** | **75** | **2** | **39** | **7** | **–5** | **284** |
| Net finance income/expense | 6 | –2 | 1 | – | – | – | – | 5 |
| Share of surplus (+) or deficit (–) of associated entities and joint ventures | – | – | – | – | – | – | – | – |
| **Surplus (+) or deficit (–)** | **131** | **38** | **76** | **2** | **39** | **7** | **–5** | **289** |

* including eliminations and non-allocable transactions

## Balance sheet by segments

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

| | 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 of state-owned real estate | 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 eliminations and non-allocable transactions

Table 13: Balance sheet as of 31 December 2016 by segments

| | 2016 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CHF millions | ETH Zurich | EPFL | PSI | WSL | Empa | Eawag | ETH Board * | ETH Domain |
| **Current assets** | | | | | | | | |
| Cash and cash equivalents | 142 | 210 | 69 | 41 | 70 | 47 | 49 | 627 |
| Current receivables from non-exchange transactions | 9 | 17 | 42 | 21 | 33 | 14 | –4 | 133 |
| Current receivables from exchange transactions | 12 | 10 | 10 | 1 | 3 | 2 | –2 | 35 |
| Current financial assets and loans | 910 | 273 | 21 | 26 | 45 | 25 | – | 1,300 |
| Inventories | 7 | 2 | 2 | – | – | – | – | 11 |
| Prepaid expenses and accrued income | 22 | 11 | 6 | – | 2 | 3 | – | 43 |
| **Total current assets** | **1,102** | **522** | **149** | **90** | **153** | **90** | **43** | **2,149** |
| **Non-current assets** | | | | | | | | |
| Property, plant and equipment | 440 | 199 | 856 | 8 | 58 | 23 | – | 1,585 |
| Intangible assets | 1 | 3 | 1 | – | – | – | – | 6 |
| Non-current receivables from non-exchange transactions | 658 | 389 | 39 | 18 | 21 | 7 | – | 1,131 |
| Non-current receivables from exchange transactions | – | – | – | – | – | – | – | – |
| Investments in associated entities and joint ventures | – | 2 | 1 | – | – | – | – | 3 |
| Non-current financial assets and loans | 3 | 24 | – | – | 1 | – | 7 | 35 |
| Co-financing | 52 | 75 | – | – | 6 | – | – | 133 |
| **Total non-current assets** | **1,154** | **691** | **898** | **27** | **86** | **30** | **7** | **2,892** |
| **Total assets** | **2,257** | **1,213** | **1,047** | **116** | **239** | **120** | **50** | **5,041** |
| **Liabilities** | | | | | | | | |
| Current liabilities | 79 | 132 | 21 | 3 | 6 | 3 | –5 | 240 |
| Current financial liabilities | – | – | 1 | – | – | – | – | 2 |
| Accrued expenses and deferred income | 73 | 37 | 20 | 2 | 7 | 1 | – | 140 |
| Short-term provisions | 39 | 22 | 15 | 4 | 6 | 3 | 1 | 89 |
| **Short-term liabilities** | **191** | **191** | **57** | **9** | **19** | **7** | **–3** | **471** |
| Dedicated third-party funds | 638 | 446 | 109 | 52 | 63 | 24 | – | 1,333 |
| Non-current financial liabilities | 17 | 23 | 2 | – | – | – | – | 42 |
| Net defined benefit liabilities | 1,218 | 665 | 358 | 86 | 165 | 60 | 20 | 2,572 |
| Long-term provisions | 34 | 21 | 436 | 3 | 5 | 2 | – | 500 |
| **Long-term liabilities** | **1,907** | **1,155** | **906** | **141** | **233** | **86** | **21** | **4,448** |
| **Total liabilities** | **2,098** | **1,346** | **962** | **150** | **252** | **93** | **17** | **4,918** |
| **Equity** | | | | | | | | |
| Valuation reserves | –816 | –433 | –248 | –54 | –112 | –39 | –14 | –1,717 |
| Dedicated reserves | 590 | 170 | 6 | 9 | 21 | 12 | 5 | 812 |
| Free reserves | 404 | 163 | 94 | 42 | 75 | 68 | 41 | 886 |
| Co-financing of state-owned real estate | 52 | 75 | – | – | 6 | – | – | 133 |
| Reserves from associated entities | – | – | – | – | – | – | – | – |
| Accumulated surplus (+)/deficit (–) | –71 | –108 | 232 | –30 | –2 | –13 | 1 | 9 |
| **Total equity** | **159** | **–133** | **85** | **–33** | **–13** | **27** | **32** | **123** |
| **Total liabilities and equity** | **2,257** | **1,213** | **1,047** | **116** | **239** | **120** | **50** | **5,041** |

* including eliminations and non-allocable transactions

## Cash flow statement by segments

Table 14: Cash flow statement 2017 by segments

| CHF millions | ETH Zurich | EPFL | PSI | WSL | Empa | Eawag | ETH Board * | ETH Domain |
|---|---|---|---|---|---|---|---|---|
| | 2017 | | | | | | | |
| **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 or 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 |
| **Cash flows from financing activities** | **–** | **–7** | **–1** | **–** | **–** | **–** | **–** | **–9** |
| **Total cash flow** | **40** | **3** | **–1** | **5** | **24** | **10** | **11** | **31** |

Continuation table 14: Cash flow statement 2017 by segments

| | 2017 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CHF millions | ETH Zurich | EPFL | PSI | WSL | Empa | Eawag | ETH Board * | ETH Domain |
| Changes from restatement as of 01.01.2017 | 9 | 5 | – | – | – | – | – | 15 |
| **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 | – | – | – | – | – | – | – | – |
| **Cash flows from operating activities includes the following:** | | | | | | | **–** | |
| Dividends | 2 | – | – | – | – | – | – | 2 |
| Interest received | 2 | 1 | – | – | – | – | – | 2 |
| Interest paid | –1 | –9 | – | – | – | – | – | –10 |

* including eliminations and non-allocable transactions

Table 15: Cash flow statement 2016 by segments

| CHF millions | ETH Zurich | EPFL | PSI | WSL | Empa | Eawag | ETH Board * | ETH Domain |
|---|---|---|---|---|---|---|---|---|
| | 2016 | | | | | | | |
| **Cash flows from operating activities** | | | | | | | | |
| **Surplus (+) or deficit (–)** | **131** | **38** | **76** | **2** | **39** | **7** | **–5** | **289** |
| Depreciation | 89 | 52 | 31 | 1 | 9 | 3 | – | 185 |
| Share of surplus or deficit of associated entities and joint ventures | – | – | – | – | – | – | – | – |
| Net finance income / expense (non-cash) | –4 | 1 | – | – | – | – | – | –3 |
| Increase/decrease in net working capital | 8 | 88 | –12 | –3 | –4 | 2 | – | 80 |
| Increase/decrease in net defined benefit liabilities | –22 | –11 | –13 | –3 | –7 | –2 | –1 | –59 |
| Increase/decrease in provisions | 2 | 3 | 1 | – | – | – | – | 7 |
| Increase/decrease in non-current receivables | –25 | –49 | –19 | 8 | –4 | –1 | – | –89 |
| Increase/decrease in dedicated third-party funds | 2 | 74 | –21 | –8 | –4 | –3 | – | 41 |
| Reclassification and other (non-cash) income | – | – | 1 | – | – | – | – | 2 |
| **Cash flows from operating activities** | **181** | **198** | **45** | **–3** | **29** | **8** | **–5** | **452** |
| **Cash flows from investing activities** | | | | | | | | |
| **Investments** | | | | | | | | |
| Purchase of property, plant and equipment | –119 | –63 | –70 | –1 | –19 | –2 | – | –276 |
| Purchase of intangible assets | – | –1 | –1 | – | –1 | – | – | –2 |
| Increase in co-financing | –2 | –4 | – | – | –6 | – | – | –12 |
| Increase in loans | – | –4 | – | – | – | – | – | –4 |
| Increase in current and non-current financial assets | –65 | –22 | – | – | –4 | – | –2 | –93 |
| **Total investments** | **–187** | **–93** | **–72** | **–1** | **–30** | **–2** | **–2** | **–387** |
| **Divestments** | | | | | | | | |
| Disposal of property, plant and equipment | – | – | – | – | 1 | – | – | 1 |
| Disposal of intangible assets | – | – | – | – | – | – | – | – |
| Decrease in co-financing | – | – | – | – | – | – | – | – |
| Decrease in loans | – | 1 | – | – | – | – | – | 1 |
| Decrease in current and non-current financial assets | 16 | 14 | – | – | – | – | – | 30 |
| **Total divestments** | **17** | **15** | **–** | **–** | **1** | **–** | **–** | **32** |
| Dividends received from associated entities and Joint Ventures | – | – | – | – | – | – | – | – |
| **Cash flows from investing activities** | **–171** | **–78** | **–71** | **–1** | **–29** | **–2** | **–2** | **–354** |
| **Cash flows from financing activities** | | | | | | | | |
| Increase in short-term and long-term financial liabilities | – | – | – | – | – | – | – | – |
| Decrease in short-term and long-termfinancial liabilities | – | – | –1 | – | – | – | – | –1 |
| **Cash flows from financing activities** | **–** | **–** | **–1** | **–** | **–** | **–** | **–** | **–1** |
| **Total cash flow** | **10** | **119** | **–28** | **–4** | **–** | **5** | **–7** | **96** |

Continuation table 15: Cash flow statement 2016 by segments

| | 2016 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CHF millions | ETH Zurich | EPFL | PSI | WSL | Empa | Eawag | ETH Board * | ETH Domain |
| **Cash and cash equivalents at the beginning of the period** | **132** | **91** | **97** | **45** | **70** | **41** | **56** | **531** |
| **Total cash flow** | **10** | **119** | **–28** | **–4** | **–** | **5** | **–7** | **96** |
| **Cash and cash equivalents at the end of the period** | **142** | **210** | **69** | **41** | **70** | **47** | **49** | **627** |
| Net effect of currency translation on cash and cash equivalents | – | – | – | – | – | – | – | – |
| **Cash flows from operating activities includes the following:** | | | | | | | | |
| Dividends | 1 | 3 | 1 | – | – | – | – | 4 |
| Interest received | 1 | 1 | – | – | – | – | – | 2 |
| Interest paid | –1 | –1 | – | – | – | – | – | –2 |

* including eliminations and non-allocable transactions

# 7 | Total federal contribution

## Federal financial contribution

Table 16: Federal financial contribution

| CHF millions | 2016 | 2017 | Change absolute |
|---|---|---|---|
| **Federal financial contribution** | **2,289** | **2,378** | **89** |

The available funds of the approved payment scheme of the ETH Domain for the years 2017–2020 comprised two credit items: federal financial contribution; and investment credit for constructions of the ETH Domain buildings. The federal financial contribution is allocated by the Federal Department of Economic Affairs, Education and Research (EAER) (VE 701 GS EAER). Investment credit for construction of the ETH Domain is allocated by the Federal Department of Finance (FDF) (VE 620 BBL).

In contrast to investment credit for construction of the ETH Domain, the federal financial contribution forms part of the consolidated statement of financial performance of the ETH Domain.

The financial contribution increased by a total of CHF 89m (+4%) compared to 2016. The comparability of the financial contribution between 2017 and the previous year is only partly possible because different ERI periods are affected, with some differences in the composition of individual components. In particular, project-specific contributions for conducting programmes and projects of national importance for the Swiss University Conference (SUC), (effect: CHF –26m compared to 2016), as well as dedicated funds for research and innovation in the area of energy within the scope of the action plan "Coordinated Energy Research Switzerland" (effect: CHF –16m compared to 2016) have been ceased to exist. By comparison, strategic focus areas were added in 2017 (effect: CHF +27m compared to 2016), see explanatory notes below.

Significant further grounds for the net increase were:
- The Base Budget was raised by CHF 109m.
- The performance-based award for 2017 (CHF 35m) was CHF 11m down on the previous year.

The federal financial contribution allocated to the entities is comprised of the Base Budget, the performance-based funds and strategic funds (incentive and start-up funding) for projects in teaching and research. In addition, some of the total federal contribution funds were channelled into research infrastructures of nationwide importance and into large-scale research projects.

The financial contribution was used in the reporting year for the strategic objectives set by the Swiss Federal Council in accordance with ERI Dispatch for 2017–2020, including:
- The strategic focus areas in research:
  "Personalized Health and Related Technologies", "Data Science" as well as
  "Advanced Manufacturing" in the amount of CHF 27m.
- The major research infrastructure of national and international importance in accordance with target 3 of the strategic objectives (ERI 2017–2020):
  - CHF 23m for the "Sustained scientific user lab for simulation based science" at the CSCS in Lugano (ETH Zurich) (2016: CHF 20m).
  - CHF 23m for the "Blue Brain Project" at EPFL (2016: CHF 20m) which is the Swiss contribution to the European FET flagship initiative Human Brain Project (HBP).
  - CHF 5m for the SwissFEL/ATHOS beamline at the PSI (2016: CHF 25m).
  - CHF 6m on the upgrade of the CMS detectors at CERN
  - A contribution of almost CHF 3m to the Swiss Plasma Center.
- A total of around CHF 19m for incentive and initial funding of strategic proposals for teaching and research (2016: CHF 16m).

Furthermore, the federal financial contribution included funding for dismantling the accelerator plants at the PSI. According to a cost study, the total costs amounted to CHF 426m for the PSI (for conditioning, interim storage, dismantling, deep geological repository). This amounted to CHF 5m in 2017 (see Note 27 Provisions).

The employer payment to support the coverage ratio of the ETH Domain pension fund with PUBLICA for five years starting from 2015 (2017 statement: CHF 3.5m). This funding is aligned to the coverage 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 principles (2017 statement: CHF 5m).

## Federal contribution to accommodation

Table 17: Federal contribution to accommodation for the ETH Domain

| CHF millions | 2016 | 2017 | Change absolute |
|---|---|---|---|
| **Federal contribution to accommodation** | **277** | **278** | **2** |

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 payment scheme of the ETH Domain. It affects financing, but not expenses (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 (*Bundesamt für Bauten und Logistik*, BBL).

The imputed interest rate for the return on average capital employed was 2.00% (2016: 2.25%). Compared to the previous year, there was also a drop in depreciation on the new purchase value of the state-owned property used by the ETH Domain. The new value of the recognised buildings was up on the previous year overall. The value of the property remained unchanged. The main usable area used by the ETH Domain stayed the same as the previous year.

For the reasons specified above, there would have had to have been a drop in the contribution to accommodation. However, as compensation charges are set off, accommodation was charged to the 2017 budget accordingly. This resulted in an increase of almost CHF 2m (+1%) on 2016.

# 8 | Tuition fees and other utilisation fees

Table 18: Tuition fees and other utilisation fees

| CHF millions | 2016 | 2017 | Change absolute |
|---|---|---|---|
| Tuition fees | 30 | 30 | 1 |
| Utilisation and adminstration fees (IPSAS 9) | 6 | 8 | 2 |
| **Tuition fees and other utilisation fees** | **35** | **39** | **3** |

This figure was up CHF 3m on 2016. About CHF 30m of the total was attributable to tuition fees.

The amount of tuition fees is directly dependent on the rise in numbers of students and doctoral students, as well as the level of the semester fees. The trend from previous years continued in 2017: the number of students and doctoral students continued to increase compared with 2016 (see 2017 Annual Report, monitoring table, p. 84 ff.). By contrast, the amount of semester fees was unchanged compared with 2016 and the previous years (SR 414.131.7; Note 1 of the Ordinance on Fees in the Domain of the Swiss Federal Institutes of Technology). Tuition fees at ETH Zurich amounted to CHF 21m and those at EPFL amounted to CHF 9m. Since 2016, the entry for tuition fees has included the additional, isolated evaluation in accordance with Pt 1.1.1 of the notes to the Fees Ordinance. This evaluation contains information about the revenue from tuition fees for Bachelor's/Master's courses. In the reporting year, tuition fees accounted for around CHF 23m of the total revenue specifically in this regard (ETH Zurich: CHF 15m, EPFL CHF 8m). The rise of a good CHF 1m on the previous year is the logical consequence of the growth in students.

As in the previous year, tuition fees account for around 1% of the 2017 operating revenue of ETH Zurich and EPFL, as measured by the respective operating revenue entry in the 2017 statement. The utilisation fees especially include the enrolment and examination fees, as well as fees for advanced education programmes and courses or for the use of libraries. The total, i.e. CHF 8m, was in excess of the previous year's figure of CHF 6m. The two Federal Insitutes of Technology posted the largest share (CHF 5m). The PSI has also recognised revenue from fees (2017: CHF 2m, 2016: CHF 1m). 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

Table 19: Research contributions, services

| CHF millions | 2016 | 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) | 257 | 257 | – | 260 | 260 | – | 3 |
| Commission for Technology and Innovation (CTI) | 51 | 51 | – | 63 | 63 | – | 12 |
| Special federal funding of applied research | 99 | 76 | 23 | 78 | 56 | 22 | –22 |
| EU Framework Programmes for Research and Innovation (FP) | 142 | 142 | – | 139 | 139 | – | –3 |
| Industry-oriented research (private sector) | 135 | 47 | 87 | 129 | 44 | 85 | –5 |
| Other project-oriented third-party funding (incl. cantons, municipalities, international organisations) | 89 | 68 | 21 | 74 | 54 | 20 | –15 |
| **Total research contributions, mandates and scientific services** | **773** | **641** | **131** | **743** | **616** | **127** | **–30** |

Compared to 2016, revenue from research contributions, mandates and scientific services was reduced by around CHF 30m (4%) to CHF 743m. CHF 616m was presented as non-exchange transactions (IPSAS 23) and CHF 127m as exchange transactions (IPSAS 9). CHF 12m in increased revenue was contributed by the newly consolidated entities.

The revenue from CTI projects (Innosuisse) was particularly positive in the reporting year (+24%). Federal funding of applied research (–22%) and the other project-oriented third-party funding (–16%) have been diminished compared to the previous year.

The teaching and research projects increasingly involve multi-year programmes (duration 3 to 5 years). The funds actually used in the year are indicated in the revenue according to the accrual principle (CoC method). The trend in the individual categories is as follows:

The **Swiss National Science Foundation** (SNSF) is one of two important federal funding organisations. The revenue volume of CHF 260m exceeded the high level from the previous year (CHF +3m or +1%). In addition to being continued successfully in National Research Programs (NRPs) and (National Centres of Competence in Research (NCCRs), the positive development is also related to the temporary backup schemes in financing. The project progress achieved during the reporting year is also an important driver for the rise. More than 80% of the revenue from the SNSF was once again allocated to the two Federal Institutes of Technology (ETH Zurich: CHF 132m, EPFL: CHF 88m). The research institutes, in particular the PSI and Eawag also raised the revenue on the previous year due to the increase in project progress.

The second important federal funding body, the **Commission for Technology and Innovation** (CTI/Innosuisse), the Swiss agency for innovation development, finances and manages the operation of networked inter-university research 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. All institutions involved in the energy development programme were successful in the reporting year and saw a rise in revenue to CHF 63m. The highest shares were once again recorded by ETH Zurich (2017: CHF 23m, 2016: CHF 19m), EPFL (2017: CHF 20m, 2016: CHF 16m) and Empa (2017: CHF 12m, 2016: CHF 10m). The PSI achieved substantially higher CTI revenue in the reporting year from greater involvement in SCCER projects.

The sharp decrease in revenue from **special federal funding of applied research** is primarily attributable to the exceptionally high figure at ETH Zurich in the previous year, entailing the financing of two professorships. Furthermore, the revenue from the PSI was affected by a marked drop in acquisitions or demand for new projects. WSL reported a lower number of projects and a lower project total than in 2016. Nevertheless, WSL still receives a substantial portion (2017: CHF 14m/16% share) of its operating funds from research mandates from federal agencies. They include large projects with the FOEN on a variety of topics such as forest and climate change and projects within the scope of the continuous collection of data for the fourth Swiss National Forest Inventory (4$^{th}$ NFI from 2009 to 2017).

The ETH Domain receives the highest proportion of competitive funding from **EU Framework Programmes for Research and Innovation** (FP) in Switzerland. Even though Switzerland has been fully associated with Horizon 2020 since the start of 2017, the total revenue from the reporting year (2017: CHF 139m, 2016: CHF 142m) also includes revenue from carrying out projects which had been financed in previous years via the SERI from federal funding (2017: CHF 32m, 2016: CHF 24m). The total virtually reached the level from the previous year, confirming the positive trend from previous years. The revenue still includes projects from the 7th FP (2007–2013) and underpins projects in Horizon 2020 (2014–2020). The trend in the entities was in the opposite direction. ETH Zurich reported a rise (CHF +7m), whereas EPFL (CHF -4m) and the PSI (CHF -6m) saw a drop in revenue. These changes relate to progress on the project; they are not a result of any increase or decrease in new acquisitions. Various projects at EPFL are linked to the FET research flagship Human Brain Project (HBP); the finances for its ramp-up phase were covered by the 7th FP. An indicator of the success of the ETH Domain in applying for EU funding is the prestigious awards (ERC Grants/Marie Skłodowska-Curie Research Fellowship Programme) pledged to researchers from the ETH Domain following a competitive selection process. However, the financial impact of this is not inevitably felt in the year in which revenue from EU FP funding is pledged.

Revenue from cooperation with the **private sector** fell by CHF 5m (–4%) to CHF 129m compared to 2016. Nevertheless, the positive trend continued overall in projects arising from cooperation with the private sector; this applies equally to strategic objective 4 KTT, which envisages increased cooperation with the private sector. In the reporting year, EPFL in particular posted increased revenue from individual large events (CHF +7m). The research institutes recorded a drop on the previous year. Research projects which are mainly based on projects with exchange transactions (IPSAS 9) have proved to be very volatile in a long-term comparison, which explains why there was a drop of CHF 8m at the PSI.

Other **project-oriented third-party funding** – contributions from cooperation with cantons, universities and international organisations – was significantly down on the previous year (CHF –15m or –16%) although the total of CHF 74m includes the first-time effect of a fully consolidated entity from ETH Zurich, which accounts for CHF 12m. The drop in other project-oriented third-party funding is essentially linked to Empa. Revenue in the previous year included CHF 11m for the Research and Technology Transfer Platform (RTTP) NEST. The previous year had also been affected by significant one-off events at ETH Zurich (CHF –7m), EPFL (CHF –6m) and the PSI (CHF –4m) which were not repeated in 2017.

# 10 | Donations and bequests

Table 20: Donations and bequests

| CHF millions | 2016 | 2017 | Change absolute |
| --- | --- | --- | --- |
| **Total donations and bequests** | **115** | **120** | **5** |

There was once again a positive trend in donations and bequests, which were up CHF 5m on 2016. The major part of the increase was attributable to the first-time recognition for an in-kind contribution of CHF 4m arising from the donated rights from EPFL for the Microcity building in Neuchatel as well as industry in Sion (see Note 2 Restatement of the consolidated statement for the ETH Domain as of 1 January 2017, and also refer to Table 21 below). The donations and bequests received in the reporting year accordingly amounted to CHF 116m, CHF 1m above the previous year's figure, which had also been high.

The majority of the revenue from donations and bequests once again went to the two Federal Institutes of Technology. They amounted to contributions of CHF 82m to ETH Zurich (2016: CHF 84m) and CHF 31m to EPFL (2016: CHF 27m). Most of the donation agreements concluded in 2017 were recognised in the income statement in the year the contract was concluded. The research institutes also benefited from donations. They were each under CHF 1m in the reporting year.

Table 21: In-kind contributions

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

# 11 | Other revenue

Table 22: Other revenue

| CHF millions | 2016 | 2017 | Change absolute |
|---|---|---|---|
| Licences and patents | 12 | 10 | −2 |
| Sales | 13 | 13 | – |
| Refunds | 10 | 10 | – |
| Other services | 37 | 45 | 8 |
| Real estate revenue | 14 | 38 | 24 |
| Profit from disposals (property, plant and equipment) | – | 1 | – |
| Own work capitalised | 6 | 4 | −2 |
| Other miscellaneous revenue | 17 | 19 | 2 |
| **Total other revenue** | **110** | **140** | **30** |

The significant increase (CHF +30m or +27%) compared to 2016 was essentially due to the inclusion of the fully consolidated entities from 2017 onwards (see Note 2 Restatement of the consolidated statement for the ETH Domain as of 1 January 2017).
This is primarily reflected in the 'other services' items and in real estate revenue: CHF 31m of the CHF 32m of increased revenue was attributed to the entities which had now been fully consolidated, in particular SQNE, SQIE and FEIP. Income from the letting of facilities by ETH Zurich also contributed almost CHF 10m in the reporting year (2016: CHF 8m).

The number of patents and licences was also down on 2016, as is the revenue from licences and patents. The licensing revenue generally depends on the sales achieved; this is subject to normal fluctuations (volatility). In general, the patents are the evaluation for new licenses in future and only generate licensing revenue in subsequent years.

The PSI capitalised its own work for ATHOS/SwissFEL in 2017 (see Note 21 Additions to property, plant and equipment asset under construction).

# 12 | Personnel expenses

Table 23: Personnel expenses

| CHF millions | 2016 | 2017 | Change absolute |
|---|---|---|---|
| Professors | 201 | 203 | 2 |
| Scientific personnel | 899 | 896 | −4 |
| Technical and administrative personnel, apprentices, trainees | 683 | 709 | 26 |
| IC, Suva and other refunds | −17 | −10 | 7 |
| **Total salaries and wages** | **1,767** | **1,797** | **30** |
| Social insurances OASI / DI / IC / MB | 110 | 113 | 3 |
| Net pension costs | 154 | 320 | 165 |
| Accident and sickness insurance Suva (BU/NBU/KTG) | 8 | 8 | – |
| Employer's contribution to Family Compensation Fund (FAK/FamZG) | 26 | 26 | – |
| **Total social insurance schemes and pension expenses** | **298** | **466** | **169** |
| Other employer contributions | 1 | −1 | −2 |
| Temporary personnel | 13 | 14 | – |
| Change in provisions for untaken leave and overtime | 4 | 7 | 3 |
| Change in provisions for contributions to long-service awards | 3 | 1 | −2 |
| Other personnel expenses | 15 | 18 | 3 |
| **Total personnel expenses** | **2,101** | **2,303** | **202** |

Personnel expenses in 2017 amounted to CHF 2,303m, i. e. up CHF 202m or 10% on the previous year.

There are essentially two reasons for the increase in personnel expenses: net pension costs were CHF 165m above the previous year's value, and salaries and wages rose by CHF 30m or 2%. The newly consolidated entities were recognised in the accounts with CHF 12m of personnel expenses, accounting for almost half of this increase. The salary measures decided upon by the ETH Board for 2017, as well as modest growth in job numbers in the institutions of the ETH Domain and in the ETH Board also contributed towards the rise in salaries and wages. 1.2% of the total salary payments were at the disposal of employees under the Salary System (NSS) for individual salary adjustments. In 2017, there was no compensation for inflation allowance.

There was an average of 18,181 full-time equivalents (FTEs) (excluding apprentices and interns) in the reporting year. This cannot be compared with the previous year because the previous year's figures correspond to the year-end numbers of FTEs. In addition, the 2017 figure comprised the average number of full-time equivalents from the newly consolidated entities (139 FTEs, excluding apprentices and interns).[1]

The net pension costs rose due to the switch from IPSAS 25 to IPSAS 39. The net interest approach is applied in IPSAS 39. The result of this was the interest rate applied to calculating the returns on plan assets was much lower than in the previous year, and this ultimately increased net pension costs by CHF 165m. The detailed composition of the net pension costs is set out in detail in the Note 28 Net defined benefit liabilities.

[1] The annual report does not show the annual average value but the year end figure. This is 18,631.6 FTEs (including apprentices and interns).

## 13 | Other operating expenses

Table 24: Other operating expenses

| CHF millions | 2016 | 2017 | Change absolute |
|---|---|---|---|
| Expenses for goods and materials | 137 | 133 | –4 |
| Premises costs | 405 | 407 | 2 |
| Energy costs | 61 | 58 | –3 |
| IT expenses | 82 | 92 | 11 |
| Expenses for consultations, expertise and guest lecturers | 72 | 72 | – |
| Library expenses | 29 | 28 | – |
| Other operating costs | 180 | 168 | –12 |
| **Total other operating expenses** | **964** | **958** | **–6** |

Overall, other operating expenses decreased by CHF 6m. In the reporting year, the newly consolidated entities contributed CHF 11m to the other operating expenses. This increase was in contrast with losses from receivables, which accounted for CHF 16m in other operating costs in the previous year.

The CHF 4m reduction in expenses for goods and materials essentially resulted from lower direct project costs at the PSI. Energy costs essentially remained stable compared to the previous year; the drop of CHF 3m was due to the lower costs for waste disposal at the PSI. IT expenses were up by CHF 11m due to higher costs for information technology services, software maintenance and licences, as well as for hardware below the activation limit.

Premises costs account for a good 40% of the total other operating expenses. In particular, they comprise the accommodation costs for the state-owned real estate used by the institutions of the ETH Domain, which only changed slightly in terms of scale (2017: CHF 278m, 2016: CHF 277m).

## 14 | Transfer expenses

Table 25: Transfer expenses

| CHF millions | 2016 | 2017 | Change absolute |
|---|---|---|---|
| Scholarships and grants to students and doctoral students | 20 | 20 | – |
| Contributions to research projects | 29 | 14 | –14 |
| Expenses for the participation in projects of national significance | 3 | – | –3 |
| Special initiatives | 21 | – | –21 |
| Other | 6 | 14 | 8 |
| Other transfer expenses | 14 | 7 | –7 |
| **Total transfer expenses** | **63** | **42** | **–22** |

Transfer expenses decreased by CHF 22m to CHF 42m. The previous year's figure still included the funds for participation in projects of national significance based on Objective 6 (Sub-objective 5) for the performance mandate for 2013–2016 from the Federal Council to the ETH Domain in accordance with ERI Dispatch 2013–2016 (BBl 2012 3147). This particularly involved initiatives and focus programmes such as SystemsX.ch or Nano-Tera.ch, which expired in 2016. These contributions will cease to apply from the new ERI period 2017–2020 or will be processed differently, as with project-linked contributions in accordance with the Higher Education Funding and Coordination Act (Note 9 ERI Dispatch for 2017–2020).

The increase in other contributions to research projects was attributable to reclassifications from items reported under other transfer expenses in 2016.

# 15 | Net finance income/expense

Table 26: Net finance income/expense

| CHF millions | 2016 | 2017 | Change absolute |
|---|---|---|---|
| **Finance income** | | | |
| Interest income | 4 | 5 | – |
| Income from investments | 4 | 3 | −1 |
| Changes in fair value of financial assets | 7 | 18 | 11 |
| Foreign currency gains | 3 | 6 | 3 |
| Other finance income | 2 | – | −1 |
| **Total finance income** | **20** | **32** | **13** |
| **Finance expense** | | | |
| Interest expense | 2 | 10 | 8 |
| Other financing costs for provision of capital | – | – | – |
| Changes in fair value of financial assets | 8 | 2 | −6 |
| Foreign currency losses | 4 | 6 | 2 |
| Impairment of loans and fixed deposits | – | – | – |
| Other finance expense | 1 | 1 | – |
| **Total finance expense** | **15** | **19** | **4** |
| **Total net finance income/expense** | **5** | **13** | **8** |

Finance income was up CHF 13m on the previous year. The extremely positive development in the financial markets, underpinned by the increase in capital used in asset management mandates, was a main contributor towards the increase in revenue.

The interest income includes interest from the addition of interest on receivables and loans to the tune of CHF 2m.

Finance expenses rose by the net sum of CHF 4m. The increase in interest expenses is attributable to the entities SQNE and SQIE which are now fully consolidated. This relates to interest expenses from finance leases. Further information about finance leases can be found in Note 25 Financial liabilities. In contrast with this is the decrease in changes in fair value of financial assets. The pro rata loss of CHF 4m from the commitment to SQNE, which had not been fully consolidated in the previous year, was recognised in 2016.

## 16 | Cash and cash equivalents

Table 27: Cash and cash equivalents

| CHF millions | 31.12.2016 | 31.12.2017 | Change absolute |
|---|---|---|---|
| Cash | 1 | 1 | – |
| Swiss Post | 235 | 192 | –43 |
| Bank | 47 | 64 | 17 |
| Short-term deposits (<90 days) | 344 | 476 | 132 |
| **Total cash and cash equivalents** | **627** | **733** | **106** |

The stock of total cash and cash equivalents increased in the year under review by CHF 106m to CHF 733m. The total is comprised mainly of deposits of under 90 days placed on the basis of the treasury agreement between the Federal Finance Administration and the ETH Board concerning ETH Domain funding (of 19 November 2007). This mainly relates to dedicated third-party funds or reserves which are temporarily deposited in the federal treasury before being used in teaching and research. Of the short-term deposits by the end of 2017, CHF 466m is attributable to investments with the Federation (2016: CHF 334m).

## 17 | Receivables

Table 28: Receivables

| CHF millions | 31.12.2016 | 31.12.2017 | Change absolute |
|---|---|---|---|
| **Receivables from non-exchange transactions** | | | |
| Receivables from project contracts and donations | 1,257 | 1,387 | 130 |
| Other receivables | 8 | 7 | –1 |
| Value adjustments | – | – | 0 |
| **Total receivables from non-exchange transactions** | **1,264** | **1,393** | **129** |
| of which current | 133 | 555 | 422 |
| of which non-current | 1,131 | 838 | –293 |
| **Receivables from exchange transactions** | | | |
| Trade accounts receivable | 36 | 39 | 3 |
| Other receivables | 1 | 1 | 1 |
| Value adjustments | –1 | –2 | –1 |
| **Total receivables from exchange transactions** | **35** | **38** | **3** |
| of which current | 35 | 38 | 3 |
| of which non-current | – | – | 0 |

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 the previous year, credit due from third-party financiers grew by CHF 129m.

Receivables rose from all categories of financiers, the SNSF, CTI, EU and the private sector, as well as local authorities, cantons and international organisations, with the exception of federal government research. The increase also includes CHF 54m for the project contract from previous years accounted for in the restatement as of 1 January 2017 (see Note 2 Restatement of the consolidated statement for the ETH Domain as of 1 January 2017).

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

Trade accounts receivable largely rose compared to the previous year due to the entities which had been fully consolidated for the first time.

### Due dates of the receivables:

Table 29: Due dates of the receivables:

| 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 |
|---|---|---|---|---|---|
| **31.12.2017** | | | | | |
| **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 a good CHF 2m were recorded for at-risk trade accounts receivable at the end of 2017. Value adjustments of CHF 1m were formed in the reporting year. No value adjustment is to be reported on receivables from revenue from non-exchange transactions.

## 18 | Inventories

Table 30: Inventories

| CHF millions | 31.12.2016 | 31.12.2017 | Change absolute |
|---|---|---|---|
| Inventories purchased | 11 | 10 | –1 |
| Inventories self-produced | – | – | – |
| **Total inventories** | **11** | **10** | **–1** |

The inventories recognised in the balance sheet for the last reporting year are almost unchanged at CHF 10m. Basically, the ETH Domain does not have considerable inventories or its own products to sell. The inventories contain 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 31: Prepaid expenses and accrued income

| CHF millions | 31.12.2016 | 31.12.2017 | Change absolute |
|---|---|---|---|
| Interest | – | – | – |
| Prepaid expenses | – | 35 | 35 |
| Other prepaid expenses and accrued income | 43 | 10 | −32 |
| **Total prepaid expenses and accrued income** | **43** | **45** | **2** |

In the reporting year, the volume of prepaid expenses and accrued income was up by CHF 2m on the previous year, which was mainly due to entities having been consolidated for the first time in 2017.

The largest deferrals for prepaid expenses included prepayments for the library (media procurement in 2018 amounting to CHF 17m), rental payments in advance (CHF 4m) and advance payments for information technology maintenance (CHF 3m). These deferrals were reported separately for the reporting of financial instruments for the first time in the year under review; in the previous year, they were part of the other prepaid expenses and accrued income (see Note 2 Restatement of the consolidated statement for the ETH Domain as of 1 January 2017).

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:

Table 32: Change in associated entities

| CHF millions | 2017 |
|---|---|
| **as of 01.01.** | **134** |
| Additions | – |
| Disposals | – |
| Dividends | −1 |
| Share of the annual surplus or deficit | 14 |
| Share of items directly recognised in equity | – |
| **as of 31.12.** | **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 subject to simplifications in line with the accounting practices of the ETH Domain.

Table 33: 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 | DECTRIS LTD |
|---|---|---|---|---|---|---|
| **31.12.2017** | | | | | | |
| Reporting date used | 31.12.2017 | 31.12.2016 | 31.12.2016 | 31.12.2016 | 31.12.2017 | 31.12.2016 |
| Current assets | 254 | 2 | 2 | 12 | 18 | 37 |
| Non-current assets | 171 | 55 | 108 | 16 | 15 | 6 |
| Short-term liabilities | 1 | 8 | 0 | 0 | 9 | 10 |
| Long-term liabilities | 349 | 33 | 37 | 1 | 9 | 9 |
| Revenue | 56 | 6 | 11 | 0 | 29 | 33 |
| Tax expense | 0 | 0 | 0 | 0 | 0 | 1 |
| Pre-tax gain or loss attributable to discontinued operations | 0 | 0 | 0 | 0 | 0 | 0 |
| Surplus (+) or deficit (–) | 13 | 1 | 2 | –1 | –2 | 5 |
| Dividends received from the associated entity | 0 | 0 | 0 | 0 | 0 | 1 |

Table 34: Aggregated information for individually immaterial associated entities

| CHF millions | 2017 |
|---|---|
| Revenue | 1 |
| Surplus (+) or deficit (–) | –1 |

**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

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

| CHF millions | Large scale research plants and equipment, machinery, furnishings, vehicles | IT hardware | 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** | | | | | | | | | |
| Changes from restatement as of 01.01.2017 | 9 | 3 | – | 12 | 373 | – | 373 | 386 | 71 |
| **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 | – |
| **as of 31.12.2017** | **2,523** | **386** | **84** | **2,994** | **762** | **132** | **894** | **3,888** | **93** |
| **Accumulated depreciation** | | | | | | | | | |
| Changes from restatement as of 01.01.2017 | 4 | 2 | – | 6 | 114 | – | 114 | 120 | 8 |
| **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 | – |
| **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 | – |

Table 36: Change in property, plant and equipment and intangible assets in 2016

| CHF millions | Large scale research plants and equipment, machinery, furnishings, vehicles | IT hardware | 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** | | | | | | | | | |
| **as of 01.01.2016** | **2,111** | **310** | **213** | **2,634** | **275** | **163** | **437** | **3,071** | **17** |
| Additions | 88 | 64 | 81 | 233 | 6 | 37 | 44 | 276 | 2 |
| Reclassifications | 17 | 4 | –22 | –1 | 16 | –16 | – | –1 | 1 |
| Disposals | –16 | –9 | –1 | –26 | – | – | – | –26 | –1 |
| **as of 31.12.2016** | **2,200** | **369** | **271** | **2,840** | **296** | **184** | **481** | **3,320** | **19** |
| **Accumulated depreciation** | | | | | | | | | |
| **as of 01.01.2016** | **1,231** | **264** | **–** | **1,495** | **83** | **–** | **83** | **1,578** | **13** |
| Depreciation | 123 | 31 | – | 155 | 24 | – | 24 | 179 | 1 |
| Impairments | 1 | – | – | 1 | – | – | – | 1 | – |
| Reversed impairments | – | – | – | – | – | – | – | – | – |
| Reclassifications | – | – | – | – | – | – | – | – | – |
| Disposals value adjustments | –14 | –9 | – | –22 | – | – | – | –22 | –1 |
| **as of 31.12.2016** | **1,342** | **287** | **–** | **1,628** | **108** | **–** | **108** | **1,736** | **13** |
| **Balance sheet value as of 31.12.2016** | **858** | **83** | **271** | **1,212** | **189** | **184** | **373** | **1,585** | **6** |
| thereof leased assets | | | | – | | | 16 | 16 | – |

**Carrying amounts of property, plant and equipment**

The recognised carrying amount of property, plant and equipment rose by CHF 278m (+18%) as of the end of 2017 to CHF 1,863m (2016: CHF 1,585m). The movable non-current assets rose by a total of CHF 19m (+2%) to CHF 1,230m compared to 2016. The carrying amount of immovable non-current assets rose to CHF 632m (CHF +259m or +69%). A significant portion of this sharp increase is attributable to buildings in a finance lease (CHF +216m) in connection with the full consolidation of controlled entities by EPFL.

The lease agreements for two ordinary companies of the EPFL (SQNE and SQIE) were taken into consideration for the first time with effect as of 1 January 2017; this was classified as finance leasing (refer to the explanatory notes in Chapter 2 Principles of accounting, Note 4 Estimate uncertainty and management judgements, as well as Note 25 Financial liabilities). This led to an increase in purchase values by CHF 325m, as well as to an increase in accumulated depreciation by CHF 98m as of 1 January 2017. EPFL has made various assumptions with regard to the recognition of these lease agreements, which are set out in Chapter 4 Estimate uncertainty and management judgements.

**Movable non-current assets (2017: CHF 1,230m, 2016: CHF 1,212m):**

There is CHF 769m in relation to the PSI for the item Large scale research plants and equipment, machinery, furnishings, vehicles (2017: CHF 1,071m, 2016: CHF 858m). This includes the carrying amount of the capitalised dismantling of the accelerator plants at the PSI (see Note 27 Provisions). The rise in the carrying amount compared to 2016 is particularly explained by the capitalisation activities regarding SwissFEL and the ARAMIS beamline at the PSI, which has also resulted in a reclassification of around CHF +225m debited from movable non-current assets under construction in the reporting year.

The carrying amount for IT hardware was down slightly on 2016 (2017: CHF 75m, 2016: CHF 83m). The movements, additions and disposals mainly concern ETH Zurich.

The strong decrease in advance payments, movable assets under construction (2017: CHF 84m; 2016: CHF 271m) is in relation to the PSI. Firstly, the aforementioned reclassification took place as a consequence of capitalisations. Secondly, there were the additions for the ATHOS beamline, Gantry 3 and SINQ upgrade at the PSI, which accounted for the major part of the additions with around CHF 49m.

**Immovable non-current assets (2017: CHF 632m; 2016: CHF 373m).**

The item Property and buildings mainly includes capitalisation in connection with the immovable portion of the user and leasehold improvements (building costs plan, *Baukostenplan*, BKP 3) that are owned by the ETH Domain. The carrying amount surged by CHF +259m due to the restatement as of 1 January 2017. This rise was primarily driven by the inclusion of the entities which are fully consolidated in the EPFL. A further reason is the reclassifications at ETH Zurich for leasehold improvements (BKP 3).

The investments in leasing include the finance lease for SQNE and SQIE from the sub-consolidation of EPFL (balance sheet value of CHF 216m) and the finance lease for ETH Zurich (balance sheet value of CHF 16m).

**Purchase value of property, plant and equipment**

The total purchase value of property, plant and equipment amounted to CHF 3,888m at the end of 2017 (2016: CHF 3,320m). The sharp increase of CHF 568m (+17%) relates to the activities which have already been mentioned. In addition to the effect from the restatement as of 1 January 2017 (CHF +386m), additions totalled CHF 223m, which exceeded the total disposals (CHF –42m) and contributed towards the increase. In particular, there were high additions in terms of equipment and movable assets under construction.

Between the movable and immovable asset classes assets under construction, there were high value reclassifications for the completed assets, particularly with the PSI and ETH Zurich (capitalisation under equipment or leasehold and user improvements).

Disposals are items which are derecognised from the balance sheet resulting as a result of periodic inventory surveys/checks, i. e. installations have been scrapped, are no longer in use or are no longer present and have therefore been derecognised. The derecognition of the disposals in movable non-current assets does not trigger cash flow effects on any significant scale.

**Accumulated depreciation of property, plant and equipment**

The accumulated depreciation was up on 2016 by the net sum of CHF 289m to CHF 2,025m. This change involved depreciations and disposals and the adjustment from the restatement as of 1 January 2017. The depreciation volume for the reporting year, 2017, amounted to CHF 203m, up +13% on the previous year's value (2016: CHF 179m). The rise is directly contingent upon the high level of investment in previous years, as well as the restatement as of 1 January 2017. The total of investments in movable and immovable property, plant and equipment owned by the ETH Domain in the reporting year and the previous years (2017: CHF 223m, 2016: CHF 276m, 2015: CHF 287m, 2014: CHF 237m) significantly exceeded the annual depreciation quota in each case. The high investment volumes are also reflected in rising additions in the purchase values of the property, plant and equipment, and this tends to lead to the higher depreciations in subsequent years.

**Intangible assets**

Intangible assets include capitalised licences, patents, rights, software and donated rights. The most important activity concerned EPFL. In connection with the restatement as of 1 January 2017, CHF 60m was recognised in the accounts for the donated right for the Microcity building, which is treated in the meaning of finance leasing (also refer to Note 25). ETH Zurich and the PSI also made a marginal contribution towards the rise in the carrying amount of intangible non-current assets, which was CHF 62m higher than the previous year at CHF 68m.

## 22 | Financial assets and loans

Table 37: Financial assets and loans

| CHF millions | 31.12.2016 | 31.12.2017 | Change absolute |
|---|---|---|---|
| **Current financial assets and loans** | | | |
| Securities and fixed deposits | 191 | 242 | 51 |
| Positive replacement values | – | – | – |
| Other financial assets | 1,108 | 1,146 | 38 |
| Loans | 1 | 1 | – |
| **Total current financial assets and loans** | **1,300** | **1,389** | **89** |
| **Non-current financial assets and loans** | | | |
| Securities and fixed deposits | – | – | – |
| Other financial assets | 16 | 25 | 9 |
| Loans | 19 | 1 | –18 |
| **Total non-current financial assets and loans** | **35** | **26** | **–9** |

Current financial assets and loans increased by CHF 89m.

CHF 31m was placed into current government deposit accounts with terms of between 3 and 12 months; these are recognised under other financial assets.

The capital increase in asset management mandates at ETH Zurich and the asset portfolios of the entities which have now been fully consolidated have also contributed to the rise in current financial assets.

Non-current financial assets and loans decreased by CHF 9m.

Non-current loans fell by CHF 18m to CHF 1m. In terms of size, this corresponds to the loan from EPFL to SQNE, which was fully consolidated as of 2017.

The other non-current financial assets include investments which are available for sale and the non-current government deposit account, to which CHF 4m was allocated. This deposit account is accumulated annually in order to finance the future dismantling of the accelerator plant 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 appraised at fair values which, together with the reclassification in the accounts in 2017, led to an increase of CHF 5m.

Of the total financial assets at the end of 2017 (CHF 1,415m), CHF 1,123m (2016: CHF 1,088m) was invested with the Federal Government and CHF 276m (2016: CHF 218m) was placed with financial institutions.

Half of the current and non-current loans, which totalled just under 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 year under review, a slight value adjustment was recognised in respect of a loan to a spin-off at the PSI. There were no overdue loans as of 31 December 2017.

## 23 | Co-financing

Table 38: Co-financing

| CHF millions | 2016 | 2017 | Change absolute |
|---|---|---|---|
| **Purchase value** | | | |
| **Changes from restatement as of 01.01.2017** | | **–** | **–** |
| **as of 01.01.** | **148** | **160** | **12** |
| Additions | 12 | 1 | −11 |
| Disposals | – | −5 | −5 |
| **as of 31.12.** | **160** | **156** | **−4** |
| **Accumulated depreciation** | | | |
| **Changes from restatement as of 01.01.2017** | | **–** | **–** |
| **as of 01.01.** | **24** | **27** | **3** |
| Depreciation | 3 | 4 | 1 |
| Disposals | – | – | – |
| **as of 31.12.** | **27** | **32** | **4** |
| **Balance sheet value as of 31.12.** | **133** | **125** | **−9** |

In the reporting year, there was an addition of almost CHF +1m at Empa for the NEST backbone (financed by AWEL), and a disposal of CHF 5m at EPFL for the ArtLab building, which is capitalised and recorded in the balance sheet as state-owned real estate.

A value adjustment for the co-financing with annual depreciation (2017: CHF −4m) resulted in a carrying amount of CHF 125m as of the end of 2017.

## 24 | Current liabilities

Table 39: Current liabilities

| CHF millions | 31.12.2016 | 31.12.2017 | Change absolute |
|---|---|---|---|
| Trade payables | 92 | 70 | −22 |
| Liabilities to social insurance institutions | 21 | 27 | 7 |
| Other current liabilities | 127 | 75 | −53 |
| **Total current liabilities** | **240** | **172** | **−68** |

The decrease of CHF 68m or 28% compared to the previous year can particularly be explained by the reduction in other current liabilities. They mainly reflect the lower 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.

Trade payables have also been reduced by CHF 22m, which is primarily attributable to the HBP project at EPFL.

## 25 | Financial liabilities

Table 40: Financial liabilities

| CHF millions | 31.12.2016 | 31.12.2017 | Change absolute |
|---|---|---|---|
| **Current financial liabilities** | | | |
| Liabilities to financial institutes | – | – | – |
| Finance lease liabilities | – | 9 | 8 |
| Negative replacement values | – | 1 | 1 |
| Other financial liabilities | 1 | 6 | 5 |
| **Total current financial liabilities** | **2** | **16** | **14** |
| **Non-current financial liabilities** | | | |
| Finance lease liabilities | 17 | 294 | 277 |
| Other financial liabilities | 25 | 80 | 54 |
| **Total non-current financial liabilities** | **42** | **374** | **332** |

Both current (CHF +14m) and non-current (CHF +332m) financial liabilities rose significantly in the reporting year. This development is attributable to two new finance lease arrangements with the newly consolidated entities SQIE and SQNE and a newly recognised donated right within the meaning of finance leasing at EPFL in connection with the Microcity building (CHF 60m). The latter is reported under other financial liabilities.

Table 41: Finance leasing

| CHF millions | Future minimum leasing payments 2016 | Future financial expenses 2016 | Present value of future minimum leasing payments 2016 | Future minimum leasing payments 2017 | Future financial expenses 2017 | Present value of future minimum leasing payments 2017 |
|---|---|---|---|---|---|---|
| **Due dates** | | | | | | |
| Due within 1 year | 1 | 1 | – | 17 | 9 | 9 |
| Due within 1 to 5 years | 6 | 5 | 1 | 68 | 32 | 37 |
| Due after more than 5 years | 31 | 15 | 16 | 343 | 86 | 257 |
| **as of 31.12.** | **38** | **21** | **17** | **429** | **126** | **302** |

| | 2016 | 2017 |
|---|---|---|
| **Leasing expenses** | | |
| Contingent lease payments expensed in period | – | – |
| **Additional details** | | |
| Future revenue from sublease (from non-cancellable contracts) | – | 41 |

The finance leasing at EPFL concerns real estate in the ordinary companies SQIE and SQNE, which were recorded for the first time as of 1 January 2017 (see Note 2 Accounting, and Note 21 Property, plant and equipment and intangible assets). EPFL has made various assumptions with regard to the recognition of these lease agreements, which are set out in Note 4 Estimate 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 future minimum lease payments as of the end of the reporting year is CHF 180m with SQNE and CHF 106m 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 17m). The building was occupied in September 2015, and the lease will run until 2043 and 2044 respectively. 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 42: Accrued expenses and deferred income

| CHF millions | 31.12.2016 | 31.12.2017 | Change absolute |
|---|---|---|---|
| Interest | – | – | – |
| Deferred income | – | 92 | 92 |
| Other accrued expenses and deferred income | 140 | 43 | –98 |
| **Total accrued expenses and deferred income** | **140** | **134** | **–6** |

Compared to the previous year, the accrued expenses and deferred income decreased by a total of CHF 6m to CHF 134m. The greatest changes were reported by EPFL. On the one hand, there was an increase of CHF 4m in accrued expenses in the reporting year as a consequence of the inclusion of entities newly consolidated in 2017. On the other hand, the previous year had a larger deferral of around CHF 8m for the financing of a building.

Deferred income received in advance especially include service agreements and commissioned research from exchange transactions (2017: CHF 79m; 2016: CHF 74m). These deferrals were reported separately for the reporting of financial instruments for the first time in the year under review; in the previous year, they were part of the other accrued expenses and deferred income (see Note 2 Restatement of the consolidated statement for the ETH Domain as of 1 January 2017).

## 27 | Provisions

Table 43: Provisions – Summary

| CHF millions | 31.12.2016 | 31.12.2017 | Change absolute |
|---|---|---|---|
| Provisions for untaken leave and overtime | 87 | 96 | 9 |
| Other long-term employee benefits (IPSAS 39) | 75 | 76 | 1 |
| Dismantling | 426 | 429 | 4 |
| Guarantees and warranties | – | – | – |
| Litigations | 1 | 1 | – |
| Other provisions | – | 6 | 5 |
| **Total provisions** | **589** | **608** | **19** |

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 |
|---|---|---|---|---|---|---|---|
| **Adjustments from the restatement as of 01.01.2017** | **2** | **–** | **–** | **–** | **–** | **–** | **2** |
| **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 | – | – | – | – | – | – | – |
| **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 |

Table 45: Provisions – Derivation 2016

| CHF millions | Provisions for untaken leave and overtime | Other long-term employee benefits (IPSAS 39) | Dismantling | Guarantees and warranties | Litigations | Other provisions | Total provisions |
|---|---|---|---|---|---|---|---|
| **as of 01.01.2016** | **83** | **72** | **426** | **–** | **1** | **1** | **582** |
| Creation (incl. increase) | 4 | 3 | – | – | – | – | 8 |
| Reversal | – | – | – | – | – | –1 | –1 |
| Appropriation | – | – | – | – | – | – | – |
| Reclassifications | – | – | – | – | – | – | – |
| Increase in present value | – | – | – | – | – | – | – |
| **as of 31.12.2016** | **87** | **75** | **426** | **–** | **1** | **–** | **589** |
| of which current | 87 | – | 1 | – | 1 | – | 89 |
| of which non-current | – | 75 | 425 | – | – | – | 500 |

The overall provisions rose by a total of CHF 19m to CHF 608m. In particular, short-term provisions have had to be increased compared to 2016 (CHF +14m or +16%)

The additional benefits for staff consist of provisions for untaken leave and overtime and are up CHF 9m (+11%) on the previous year. This credit for employees is classified as current. The untaken leave and overtime balance is calculated by institution and was implemented in detail with the restatement as of 1 January 2017 (see Note 2 Basis of Accounting).

The other long-term employee benefits (IPSAS 39) include the future long-service awards/loyalty bonuses, which are to be valued by independent actuaries using the projected unit credit method. Long-term provisions were slightly up on 2016 (CHF +1m net). In addition, the formation and use of this provision is now to be posted separately.

The amount for dismantling (CHF 429m) includes CHF 425m (2016: CHF 426m) for the dismantling of the accelerator plants and the disposal of radioactive components at the PSI. The annual savings on the deposit account with the Federation (see Note 21 Financial assets) amounted to CHF 5m for 2017; this will rise gradually to CHF 8m for 2018, and then to CHF 11m for 2019 and subsequent years.

The PSI continued to create a long-term provision of the order of CHF 4m for dismantling the SwissFEL.

The other provisions contain provisions on the basis of repayment risks from EU projects in the amount of CHF 5m (EPFL CHF 4m, PSI CHF +1m).

# 28 | Net defined benefit liabilities

All employees and pensioners of the institutions of the ETH Domain and of the staff, as well as the President of the ETH Board are insured under the ETH Domain's pension plan with the collective institution "Swiss Federal Pension Fund" (PUBLICA). There are no further significant pension plans within the controlled entities; therefore, any further statements in the text refer to the ETH Domain pension plan with PUBLICA. However, the existing balance for net defined benefit liabilities as of 31 December 2017 includes obligations under other pension plans amounting to CHF 3m.

The standard IPSAS 39, Employee benefits, was implemented as of 1 January 2017. The effects are explained in detail in Note 2. The previous year's figures are based on IPSAS 25 and have only been reclassified into the tables which have been adjusted in line with IPSAS 39 (not restated).

## Legal framework and responsibilities

**Regulatory environment**

Swiss plans must be funded by a legally separate pension fund. The law prescribes minimum benefits.

**Organisation of the pension plan**

PUBLICA is an independent, state-run institution under public law.

The Board of Directors (*Kassenkommission*) is the uppermost executive body within PUBLICA. In addition to executive management, it is also responsible for supervising and exercising control over the management of PUBLICA. The parity commission has 16 members (eight representing the people insured and eight representing the employers from among all the affiliated pension plans). This means that the uppermost executive body of PUBLICA is made up in equal parts of representatives of employees and employers.

Each pension scheme has a separate parity commission whose remit includes the conclusion of the affiliation contract and making decisions on the appropriation of any surpluses. Each parity commission is made up of nine employer representatives and nine employee representatives from the entities.

**Insurance plan**

According to IPSAS 39, the insurance plan must be classified as a "defined benefit" plan.

The pension plan is defined in the pension policies for employees and professors of the ETH Domain's pension fund. These regulations form part of the affiliation contract with PUBLICA. The pension plan provides in excess of the minimum benefits required by the law in the event of invalidity, 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 defined as a percentage of the insured wage. A risk premium is collected for the risks of death and invalidity. The administrative costs are paid by the employer.

The old-age pension is calculated by multiplying the credit balance in the retirement fund by the conversion rate specified in the policy. The employee has the option of drawing the retirement benefits as capital. There are pension plans for different groups of insured persons. In addition, the employee has 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**

Investments are made by PUBLICA collectively for all the pension plans (with the same investment profile).

As the uppermost executive body within PUBLICA, the Board of Directors bears overall responsibility for the management of the assets. 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 the implementation of investment strategy rests with the Asset Management of PUBLICA. Asset Management also makes tactical decisions to deviate temporarily from the weighting of the investment strategy in order to generate added value compared to the existing strategy. Where individual investment 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 the time axis.

## Risks for the employer

The parity commission for the ETH Domain's pension plan can change the financing system (contributions and future benefits) at any time. The parity commission may collect restructuring contributions from the employer during a period of under-cover within the meaning of pension law (section 4 of the Ordinance on Old-Age, Survivors' and Disability Pensions, BVV 2). If this is to be used to finance extraordinary benefits, the employer must indicate that it is in agreement with this.

The definitive coverage ratio in accordance with the BVV 2 had not been met by the time the consolidated financial statements were approved. The provisional regulatory funded ratio for the ETH Domain's pension scheme at PUBLICA, in accordance with BVV 2, amounted to 108.0% as of the end of the year (2016: 103.2%, definitive). The provisional economic funded ratio for the ETH Domain's pension plan at PUBLICA as of the end of the year was 89.5% (2016: 84.9%, definitive).

## Special events

There were no plan amendments, curtailments or settlements in the current reporting period.

Table 46: Net defined pension liabilities

| CHF millions | 31.12.2016 | 31.12.2017 |
|---|---|---|
| Present value of defined benefit obligations | −9,109 | −8,918 |
| Fair value of plan assets | 6,537 | 7,024 |
| **Recognised net defined benefit liabilities** | **−2,572** | **−1,894** |

The decrease in net defined benefit liabilities is attributable, on the one hand, to the restatement dated 1 January 2017 (CHF 174m) and on the other hand to the change in actuarial assumptions, in particular the increase in the discount rate and the reduction in salary development and interest on retirement savings.

CHF 3m (2016: CHF 0) of the net defined benefit liabilities relates to pension plans outside the ETH Domain's pension plan at PUBLICA.

Table 47: Net pension costs

| CHF millions | 2016 | 2017 |
|---|---|---|
| Current service cost (employer) | 271 | 305 |
| Past service cost | 21 | 5 |
| Gains (–) / losses (+) from plan settlements | – | – |
| Interest expense from defined benefit obligations | 33 | 18 |
| Interest income from plan assets | –171 | –13 |
| Administrative costs (excl. asset management costs) | – | 5 |
| Other | – | – |
| **Total net pension costs incl. interest expense recognised in statement of financial performance** | **154** | **320** |

The ETH Domain's net pension costs for the reporting year are CHF 320m (2016: CHF 154m). CHF 1m (2016: none) of that relates to pension plans outside the ETH Domain's pension plan at PUBLICA.

The increase in net pension costs is due in particular to the change from IPSAS 25 to IPSAS 39. Since IPSAS 39 introduces the net interest approach, the expected rate of return on plan assets is now calculated applying the discount rate. This results in lower interest income on plan assets amounting to CHF 13m (2016: CHF 171m) in the statement of financial performance and a correspondingly higher actuarial gain of CHF 465m (2016: CHF 143m) in equity. Interest expense from defined benefit obligations were down from CHF 33m to CHF 18m due to the lower discount rate of 0.2% (2016: 0.4%).

The current service cost amounting to CHF 305m (2016: CHF 271m) rose due to a slight increase in the number of pension scheme members. The past service cost includes recorded buy-ins in the pension plan for professors amounting to CHF 5m (2016: CHF 21m), which were recorded for the first time in the previous year. 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 213m and employees' contributions of CHF 109m are expected for the coming financial year.

Table 48: Amounts to be immediately recognised in equity

| CHF millions | 31.12.2016 | 31.12.2017 |
|---|---|---|
| Actuarial gains (–) and losses (+) | | |
| from change in financial assumptions | 145 | –320 |
| from change in demographic assumptions | 384 | – |
| from experience adjustments | 145 | 178 |
| Return on plan assets excl. interest income | –143 | –465 |
| Other | – | – |
| **Amount recognised in equity** | **531** | **–606** |
| **Cumulative amount of gains (–)/losses (+) recognised in equity** | **1,720** | **1,113** |

The actuarial gains recognised in equity in 2017 are CHF 606m (2016: actuarial loss of CHF 531m). This results in a cumulative accrued loss of CHF 1,113m as of 31 December 2017 (2016: CHF 1,720m). CHF 1m (2016: none) of the actual gains relates to pension plans outside the ETH Domain's pension plan at PUBLICA. The actual gains resulting from the change in financial assumptions result from the increase in the discount rate and the reduction in salary development and interest on retirement savings. There were no changes in demographic assumptions in the reporting year (switch in the previous year to BVG 2015 and to generation tables).

Table 49: Change in present value of defined benefit obligations

| CHF millions | 2016 | 2017 |
|---|---|---|
| Changes from restatement as of 01.01.2017 | – | −163 |
| **Present value of defined benefit obligations as of 01.01.** | **8,325** | **8,946** |
| Current service cost (employer) | 271 | 305 |
| Interest expense from defined benefit obligations | 33 | 18 |
| Employee contributions | 111 | 114 |
| Benefits paid in (+) and paid out (−) | −327 | −328 |
| Past service cost | 21 | 5 |
| Gains (−)/losses (+) from plan settlements | – | – |
| Actuarial gains (−)/losses (+) | 674 | −141 |
| Other | – | – |
| **Present value of defined benefit obligations as of 31.12.** | **9,109** | **8,918** |

The weighted average term arising from defined benefit obligations is 15.2 years as of 31 December 2017 (2016: 15.8 years).

Table 50: Change in fair value of plan assets

| CHF millions | 2016 | 2017 |
|---|---|---|
| Changes from restatement as of 01.01.2017 | | 7 |
| **Fair value of plan assets as of 01.01.** | **6,225** | **6,544** |
| Interest income from plan assets | 171 | 13 |
| Employer contributions | 213 | 220 |
| Employee contributions | 111 | 114 |
| Benefits paid in (+) and paid out (−) | −327 | −328 |
| Gains (+)/losses (−) from plan settlements | – | – |
| Administrative costs (excl. asset management costs) | – | −5 |
| Return on plan assets excl. interest income | 143 | 465 |
| Other | – | – |
| **Fair value of plan assets as of 31.12.** | **6,537** | **7,024** |

Table 51: Transition of net defined benefit liabilities

| CHF millions | 2016 | 2017 |
|---|---|---|
| Changes from restatement as of 01.01.2017 | | 170 |
| **Net defined benefit liabilities as of 01.01.** | **−2,099** | **−2,401** |
| Net pension costs incl. interest expense recognised in statement of financial performance | −154 | −320 |
| Amounts directly recognised in equity | −531 | 606 |
| Employer contributions | 213 | 220 |
| Obligations paid directly by the entity | – | – |
| Other | – | – |
| **Net defined benefit liabilities as of 31.12.** | **−2,572** | **−1,894** |

The restatement adjustment as of 1 January 2017 to the net defined benefit obligations consists of CHF +174m from the ETH Domain's pension plan at PUBLICA (implementation of IPSAS 39) and CHF −4m from the other pension plans for the controlled entities (first application of IPSAS 34–38).

Table 52: Major categories of plan assets (in percentage)

| Percentage | Listed | Not listed | 31.12.2016 | Listed | Not listed | 31.12.2017 |
|---|---|---|---|---|---|---|
| Liquidity | 2 | – | 2 | 4 | – | 3 |
| Bonds (in CHF) Confederation | 6 | – | 6 | 6 | – | 6 |
| Bonds (in CHF) ex. Confederation | 12 | – | 11 | 12 | – | 11 |
| Government bonds (in foreign currencies) | 30 | – | 28 | 28 | – | 26 |
| Corporate bonds (in foreign currencies) | 16 | – | 15 | 15 | – | 14 |
| Mortgages | – | – | – | – | – | – |
| Shares | 32 | – | 30 | 33 | – | 31 |
| Real estate | – | 86 | 5 | – | 70 | 5 |
| Commodities | 2 | – | 2 | 2 | – | 2 |
| Other | – | 14 | 1 | – | 30 | 2 |
| **Total plan assets** | **100** | **100** | **100** | **100** | **100** | **100** |

PUBLICA will bear the insurance and investment risks itself. The investment strategy is defined in such a way that benefits under the policy can be provided upon maturity.

There is no known pension fund real estate used by the employer.

Table 53: Principal actuarial assumptions used as at the reporting date (in precentage)

| Percentage | 2016 | 2017 |
|---|---|---|
| Discount rate as of 01.01. | 0.40 | 0.20 |
| Discount rate as of 31.12. | 0.20 | 0.30 |
| Expected salary development | 0.90 | 0.50 |
| Expected pension development | 0.00 | 0.00 |
| Interest on retirement savings | 1.00 | 0.50 |
| Life expectancy at age 65 – women (no. of years) | 24.32 | 24.43 |
| Life expectancy at age 65 – men (no. of years) | 22.26 | 22.38 |

The discount rate is based upon the cash interest rates for federal bonds published by the Swiss National Bank and from the expected capital flows of the ETH Domain's pension plan at PUBLICA in accordance with existing data from the previous year. The expected future salary development is based on reference economic variables. The pension development corresponds to the expected development for the average remaining term based upon the financial circumstances of the pension plan. The generation tables in BVG 2015 are applied for the assumptions made about life expectancy.

Table 54: Sensitivity analysis (change in present value of defined benefit obligations)

| | 2016 | | 2017 | |
|---|---|---|---|---|
| CHF millions | Increase in assumption | Decrease in assumption | Increase in assumption | Decrease in assumption |
| Discount rate (change +/– 0,25%) | –348 | 372 | –327 | 349 |
| Expected salary development (change +/– 0,25%) | 53 | –51 | 36 | –35 |
| Expected pension development (change +/– 0,25%) | 276 | –262 | 269 | –255 |
| Interest on retirement savings (change +/– 0,25%) | 58 | –57 | 56 | –54 |
| Life expectancy (change +/–1 year) | 312 | –316 | 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 adapted at once, while the other parameters remain unchanged. The discount factor, 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 mortality has been calculated by lowering or increasing mortality 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 55: Dedicated third-party funds

| CHF millions | 31.12.2016 | 31.12.2017 | Change absolute |
|---|---|---|---|
| Swiss National Science Foundation (SNSF) | 475 | 511 | 35 |
| Commission for Technology and Innovation (CTI) | 106 | 112 | 7 |
| EU Framework Programmes for Research and Innovation (FP) | 374 | 373 | – |
| Special federal funding of applied research | 118 | 98 | −20 |
| Industry-oriented research (private sector) | 75 | 156 | 80 |
| Other project-oriented third-party funding | 58 | 71 | 14 |
| Donations and bequests | 128 | 106 | −22 |
| **Total dedicated third-party funds** | **1,333** | **1,428** | **94** |

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 94m or 7% is positive; it reflects increased availability of third-party funding to promote research in the ETH Domain.

This increase also includes a performance obligation to the tune of CHF 54m for a project contract at EPFL concluded in previous years (see Note 2 Restatement of the consolidated statement for the ETH Domain as of 1 January 2017).

The sharp rise in dedicated third-party funds from industry-oriented research of CHF 80m was particularly evident at EPFL, firstly due to the aforementioned contract (CHF 54m) and furthermore due to new acquired projects with the private sector in the reporting year. Financing has been made available for this, although little use has been made of it so far as the projects are at an early stage.

All the institutions successfully bid for a larger quantity of new projects from the SNSF in 2017; they are still at an early stage, which is reflected in the sharp rise in dedicated third-party funds.

The volume of contracts for SCCER projects (Coordinated Energy Research Switzerland) increased due to continued agreements with ETH Zurich and WSL, and there was a decrease in performance obligations due to CTI projects expiring. All in all, this resulted in a rise in dedicated CTI third-party funds.

The volume of dedicated third-party funds from EU research contributions stagnated due to conflicting effects: firstly, dedicated third-party funds were down due to ongoing project progress, which was further weakened in part by currency effect. In addition, there was an increase in performance obligations at Empa arising from new joint projects within the scope of Horizon 2020.

There was a drop in performance obligations from federal government research because many of the project contracts with the Federation are gradually expiring or have come to an end, such as with WSL (LFI and avalanche warning) as well as with Empa (NEST project).

There has been an overall rise in dedicated third-party funds in the category 'other project-oriented third-party funds', firstly due to the first-time allowance for newly consolidated entities (CHF 7m), as well as a performance obligation for the promotion of the Empa site in Thun (CHF 10m). On the other hand, the balance fell as a result of the cessation of funding for the SwissFEL/ARAMIS beamline at the PSI from the canton of Aargau (CHF 8m).

# 30 | Financial risk management and additional information about the 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. 38 f.).

Financial risk management particularly involves:
– credit risk (default risk),
– liquidity risk, and
– market risk (interest, trading price and foreign currency risk).

The focus of risk management remains unchanged in credit risk. There are guidelines controlling the investment of financial resources in order to reduce default and market risk. A large proportion of the receivables and claims arising from financial assets is against parties with a high credit rating and solvency. Cluster risks only exist in respect of those counterparties, which is why the credit risk is assessed as low.

Furthermore, there are receivables and financial assets in foreign currencies which are hedged according to prevailing factors in order to minimise the risk.

The compliance with and effectiveness of the guidelines are insured by the internal control system (ICS).

**Credit and default risk**

Table 56: Maximum default risk

| CHF millions | Total | Federation | European Commission FP * | SNSF, CTI, OASI social service, Suva | SNB and banks with government guarantee | Postfinance and other banks | Other counter-parties |
|---|---|---|---|---|---|---|---|
| **31.12.2017** | | | | | | | |
| Cash and cash equivalents | 733 | 467 | – | – | 17 | 249 | – |
| Receivables from non-exchange transactions | 1,393 | 104 | 413 | 366 | – | – | 511 |
| Receivables from exchange transactions | 38 | 3 | – | – | – | – | 35 |
| Financial assets and loans | 1,415 | 1,123 | – | – | – | 19 | 273 |
| Prepaid expenses and accrued income | 10 | 1 | – | – | – | – | 9 |
| **Total** | **3,590** | **1,699** | **413** | **366** | **17** | **268** | **827** |

* The remaining receivables due from the Federation (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.

The maximum default risk corresponds to the book values on the balance sheet. The actual risk is very low based on the fact that a large proportion of the financial assets are held with the Federation and with other public sector institutions.

## Liquidity risk

The ETH Domain has processes and principles which guarantee adequate liquidity for the settlement of ongoing and future obligations. This includes maintaining an adequate reserve of liquidity and tradeable securities.

Table 57: Contractual maturities of financial liabilities

| CHF millions | Total carrying amount | Total contract value | Up to 1 year | 1–5 years | More than 5 years |
|---|---|---|---|---|---|
| **31.12.2017** | | | | | |
| **Non-derivative financial liabilities** | | | | | |
| Current liabilities | 172 | 172 | 172 | – | – |
| Leasing liabilities | 302 | 421 | 10 | 68 | 343 |
| Financial liabilities | 86 | 86 | 6 | 22 | 57 |
| Accrued expenses and deferred income | 42 | 42 | 42 | – | – |
| **Derivative financial liabilities** | **1** | **1** | **1** | **–** | **–** |
| **Total** | **603** | **722** | **231** | **90** | **400** |

Financial liabilities arise, most notably, from current liabilities and leasing liabilities. Under normal circumstances, expenses and investments are financed with funds generated internally. In some cases, investments are financed by leases. Financial liabilities include liabilities 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.

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 Federation. The liquidity risk is low.

## Market risk

### Interest and trading price risk

The interest risk is not hedged. Any increase or decrease in the interest rate of about 1% would raise or lower profits by around CHF 15m.

The bonds contained in the asset management mandate are also taken into account in the analysis of the interest risk.

The other trade items (excluding bonds) largely consist of foreign and Swiss shares and funds. A reduction in price of around 10% would lower the profit by CHF 16m.

Most of the trading items exposed to a trading price risk are managed 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. It ensures that expected minimum yields are achieved. EPFL reviews the defined strategy quarterly.

### Foreign currency risk

Most of the receivables in foreign currencies are in euros and US dollars; they are hedged with derivatives according to prevailing circumstances. Foreign currency risks in asset management mandates are hedged in principle. Any fluctuation in the exchange rate of these two currencies of +/– 10%, allowing for hedging transactions, would impact upon the statement of financial performance as follows:

Table 58: Sensitivity to foreign currency risk

| CHF millions | Total | CHF | EUR | USD | Other |
|---|---|---|---|---|---|
| **31.12.2017** | | | | | |
| **Net currency balance** | **2,346** | **2,314** | **10** | **4** | **17** |
| Sensitivity affecting financial performance +/–10% | | | 1 | 0 | |
| Closing rate | | | 1.1701 | 0.9743 | |

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

## Capital management

Managed capital refers to equity without valuation reserves. The ETH Domain is seeking to create a solid equity base. This base will enable the implementation of the strategic objectives to be guaranteed. Statutory criteria prohibit the institutions of the ETH Domain and the ETH Board from raising funds in the capital market.

## Estimate of fair values

Based on short-term due dates, the carrying amount of cash and cash equivalents and the carrying amounts of current loans, fixed deposits and receivables, as well as current liabilities reflect a reasonable assessment of the fair value.

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

The fair value of the financial assets available for sale is based upon actual values, provided they can be determined reliably, or reflect purchase 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 due in the future and discounted at market interest rates.

## Classes and categories of financial instruments based on carrying amounts and fair values

Table 59: Classes and categories of financial instruments

| CHF millions | Loans and receivables | At fair value through surplus (+)/ deficit (–) | Available for sale | Financial liabilities measured at amortised cost | Total carrying amount | Total fair value |
|---|---|---|---|---|---|---|
| **31.12.2017** | | | | | | |
| Cash and cash equivalents | 733 | | | | 733 | 733 |
| Receivables from non-exchange transactions | 1,393 | | | | 1,393 | 1,393 |
| Receivables from exchange transactions | 38 | | | | 38 | 38 |
| Financial assets and loans | 1,124 | 277 | 14 | | 1,415 | 1,415 |
| Prepaid expenses and accrued income | 10 | | | | 10 | 10 |
| Current liabilities | | | | 172 | 172 | 172 |
| Finance lease liabilities | | | | 302 | 302 | 302 |
| Other financial liabilities | | 1 | | 86 | 87 | 87 |
| Accrued expenses and deferred income | | | | 42 | 42 | 42 |

The ETH Domain does not have any held-to-maturity investments.

## Hierarchy levels of the financial instruments valued at the fair value

The financial instruments valued at the fair value are to be disclosed within a three-level valuation hierarchy:

- Level 1: Stock market prices on an active market for identical assets and liabilities;
- Level 2: Valuation methodology in which important input parameters are based on evident market data;
- Level 3: Valuation methodology in which important input parameters are not based on evident market data.

Table 60: Fair value hierarchy

| CHF millions | 31.12.2017<br>Carrying amount / fair value | Level 1 | Level 2 | Level 3 |
|---|---|---|---|---|
| Financial assets | 290 | 277 | 6 | 7 |
| Financial liabilities | 1 | – | 1 | – |

## Net gains/losses by valuation category

Table 61: Net gains/losses by valuation category

| CHF millions | 31.12.2017<br>Loans and receivables | At fair value through surplus (+) / deficit (–) | Available for sale | Financial liabilities |
|---|---|---|---|---|
| Interest income (+)/interest expense (–) | 2 | 2 | | –10 |
| Income from investments | | 2 | – | |
| Change in fair value | | 16 | | |
| Currency translation differences, net | 1 | –1 | | – |
| Impairments | – | | – | |
| Reversal of impairment | – | | | |
| Gains and losses reclassified from equity to the statement of financial performance | | | 1 | |
| **Net surplus or deficit recorded in the statement of financial performance** | **3** | **19** | **1** | **–10** |
| **Net surplus (+) or deficit (–) recognised in equity** | **–** | **–** | **2** | **–** |
| **Total net surplus (+) or deficit (–) by category** | **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 62: Contingent liabilities

| CHF millions | 31.12.2016 | 31.12.2017 | Change absolute |
|---|---|---|---|
| Guarantees | – | – | – |
| Warranties | 1 | 1 | 1 |
| Litigations | – | 3 | 2 |
| Other | 1,106 | 269 | –838 |
| **Total contingent liabilities** | **1,107** | **272** | **–835** |

There are 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.

There were contingent liabilities of CHF 3m for litigations at ETH Zurich.

EPFL lists under other contingent liabilities the possible effects of joint and several liability from leasing relationships with the simple partnerships controlled by EPFL. As of the end of 2017, these were comprised as follows:

- SQNE: CHF 0m (2016: CHF 513m): The lease lasts until 28 February 2114 with the option to terminate after 30 years. The liability until 28 February 2044 is recognised as a leasing liability for the first time in the 2017 financial statements (see Note 25 Financial liabilities, explanatory Note 2 Principles of accounting, and Note 21 Property, plant and equipment and intangible assets). The amount shown for the previous year contains the liability under the lease agreement until 28 February 2044 and the contractually agreed repurchase value of the building.
- SQIE: CHF 0m (2016: CHF 302m): The lease lasts until 30 April 2111 with the option to terminate after 30 years. The liability until 30 April 2041 is recognised as a leasing liability for the first time in the 2017 financial statements (see Note 25 Financial liabilities, explanatory Note 2 Principles of accounting, and Note 21 Property, plant and equipment and intangible assets). This previous year's value contains the liability under the lease agreement until 30 April 2041, as well as the contractually agreed repurchase value of the buildings.
- Biotech Campus: CHF 247m and repairs CHF 9m: EPFL, the University of Geneva and the Campus Biotech Geneva foundation hold joint and several liability until 30 June 2043.
- An audit by the European Commission raised an objection regarding non-eligible costs in two projects. The possibility of this situation being extrapolated to other projects cannot be excluded.

## Contingent assets

Table 63: Contingent assets

| CHF millions | 31.12.2016 | 31.12.2017 | Change absolute |
|---|---|---|---|
| Off-balance sheet receivables | – | 1 | 1 |
| Other | – | 1 | 1 |
| **Total contingent assets** | **–** | **2** | **2** |

There were contingent assets of CHF 2m (2016: CHF 0m) in the 2017 reporting year. They primarily concerned EPFL regarding a ruling passed by a court.

Furthermore, ETH Zurich receives research funding and donations from third parties which meet the essential characteristics of an asset although ETH Zurich's share of future inflow of funds cannot be reliably quantified. This involves around 40 research contracts the Swiss National Science Foundation has with several contracting parties, 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 64: Financial commitments

| CHF millions | 31.12.2016 | 31.12.2017 | Change absolute |
|---|---|---|---|
| Financial committments <= 1 year | 53 | 52 | – |
| Financial committments from 1 to 5 years | – | 15 | 15 |
| Financial committments > 5 years | – | – | – |
| No due date/indefinite | – | – | – |
| **Total financial committments** | **53** | **67** | **15** |

The rise in financial commitments primarily concerns the PSI (CHF +19m). The PSI has current commitments of CHF 38m, in particular for plant engineering projects for SwissFEL/ATHOS, and non-current commitments of CHF 15m for the SINQ upgrade.

ETH Zurich also has reported financial commitments for unfulfilled orders for technical and scientific equipment (CHF 7m), EPFL (CHF 4m), Empa (CHF 3m) and Eawag (CHF 1m).

# 33 | Operating lease

Table 65: Operating lease

| CHF millions | 2016 | 2017 | Change absolute |
|---|---|---|---|
| **Due dates** | | | |
| Due within 1 year | 30 | 32 | 2 |
| Due within 1 to 5 years | 88 | 91 | 3 |
| Due after more than 5 years | 154 | 179 | 25 |
| **Future minimum payments for non-cancellable operating lease as of 31.12.** | **272** | **302** | **30** |
| **Leasing expenses** | | | |
| Minimum lease payments | 27 | 31 | 4 |
| Payments from subleasing | 1 | 1 | 1 |
| **Leasing payments of current period** | **28** | **32** | **4** |
| **Additional details** | | | |
| Future revenue from sublease (from non-cancellable contracts) | 2 | 1 | – |

Similarly to the previous year, the largest lease agreements are to be found at ETH Zurich (future minimum lease payments in the amount of CHF 164m) and at EPFL (future minimum leasing payments in the amount of CHF 132m). This primarily involves the rental of various properties. Empa (CHF 6m) and the PSI (CHF 1m) have reported commitments for lease agreements and other leasing liabilities.

The leasing payments of the current period are divided between ETH Zurich (CHF 24m), EPFL (CHF 6m) and Empa (CHF 2m).

# 34 | Remuneration of key management personnel

Table 66: Remuneration of key management personnel

| CHF millions | 2016 | 2017 | Change absolute |
|---|---|---|---|
| ETH Board | 1 | 1 | – |
| Directorate | 2 | 2 | – |
| **Remuneration of key personnel** | **3** | **3** | **–** |

Table 67: Key personnel

| Full-time equivalent | 2016 | 2017 | Change absolute |
|---|---|---|---|
| ETH Board * | 2.10 | 2.10 | – |
| Directorate ** | 6.00 | 6.00 | – |
| **Number of persons (in full-time positions)** | **8.10** | **8.10** | **–** |

* Workload: President of the ETH Board: 80%one member of the ETH Board: 70%; remaining six members of the ETH Board without management functions: 10% each.
** Board members with management functions and 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 72 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 68: Controlled entities

| | Legal form | Nature of collaboration/business activity | Domicile | Jurisdiction | Currency | Proportion of voting rights or participating share (in %) 31.12.2017 | | Reporting date used |
|---|---|---|---|---|---|---|---|---|
| ETH Singapore SEC Ltd | Ltd | Consolidating the global position of Switzerland and Singapore in the area of environment/sustainability and appropriate research cooperation | Singapore | Singapore | SGD | 100 | 100 | 31.03.2017 |
| Rübel Geobotanical Research Institute Foundation [1] | Foundation | Promotion of geobotany (plant sociology, plant ecology, plant propagation, vegetation history) | Zurich | Switzerland | CHF | 57 | 100 | 31.12.2016 |
| 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 | 31.12.2017 |
| Fondation EPFL Innovation Park | Foundation | The foundation owns and maintains buildings for larger companies and promising start-ups (technology park). | Ecublens (VD) | Switzerland | CHF | 42 | 100 | 31.12.2017 |
| Société du Quartier de l'Innovation (SQIE) | Ordinary company | The ordinary company owns and maintains buildings for larger companies and promising start-ups. | Ecublens (VD) | Switzerland | CHF | 100 | 100 | 31.12.2017 |
| Société du Quartier Nord de l'EPFL [2] (SQNE) | Ordinary company | The ordinary company 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 | 75 | 100 | 31.12.2017 |

[1] 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.

[2] 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 69: Associated entities

| | Legal form | Nature of collaboration/business activity | Domicile | Jurisdiction | Currency | Proportion of voting rights or participating share (in %) 31.12.2017 | |
|---|---|---|---|---|---|---|---|
| ETH Zurich Foundation [3] | Foundation | Promotion of research and teaching at the Federal Institute of Technology Zurich | Zurich | Switzerland | CHF | 15 | 100 |
| Albert Lück Foundation | Foundation | Promotion of teaching and research and studies in the field of civil engineering at ETH Zurich, most notably in the area of the current department of Construction, Environment and Geomatic Engineering or its successor unit | Zurich | Switzerland | CHF | 20 | 100 |
| Student Housing Foundation | Foundation | Provision and operation of favourable accommodation for people studying in Zurich. | Zurich | Switzerland | CHF | 22 | 50 |
| Contemporary History Archive Foundation | Foundation | Promotion, long-term safeguarding and expansion of the ETH Zurich Archive 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 | Establishment and promotion of a documentation centre for Jewish contemporary history in the ETH Zurich Archive 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 | Switzerland | CHF | 40 | 100 |
| Fondation Campus Biotech Geneva | Foundation | The Biotech Campus is a newly established 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 AG | Public limited company | Development and production of electronic measuring instruments for scientific and industrial applications | Baden | Switzerland | CHF | 21 | 21 |

[3] 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, it 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 70: Entities below the thresholds according to the Ordiance on Finance and Accounting of the ETH Domain

| | 31.12.2017 |
|---|---|
| **Controlled entities** | |
| Quantity | 8 |
| Total assets (CHF million) | 26 |
| **Associated entities** | |
| Quantity | 15 |
| Total assets (CHF million) | 44 |

## 36 | Events after the reporting date

The consolidated financial statement of the ETH Domain for 2017 was approved by the Swiss Federal Council on 21 March 2018. No significant events have occurred prior to that date in the ETH Domain that would necessitate any disclosure regarding the consolidated financial statement of the ETH Domain as of 31 December 2017 or any adjustment thereto.

# Auditors' report

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

Reg. Nr. 1.18026.932.00348.002

## *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 2017***

### 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 2017, the consolidated balance sheet as of 31 December 2017, 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 8 to 76) present fairly, in all material respects, the consolidated financial position of the ETH Domain as of 31 December 2017, 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 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, 9 March 2018

SWISS FEDERAL AUDIT OFFICE

Eric-Serge Jeannet
Licensed audit expert

Martin Köhli
Licensed audit expert

# Publication details

Publisher

ETH Board, Häldeliweg 15, CH-8092 Zurich

Project management, editing: ETH Board Finances / Communication, Zurich
Design: phorbis Communications AG, Basel
Translation, proofreading: comtexto AG, Zurich
Print: Kromer Print AG, Lenzburg
Editorial deadline: 12 March 2018

The Financial Report is published in German, French and English. The German version of the consolidated financial statements is binding. The Financial Report is available electronically at: www.ethboard.ch/financialreport2017.

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.



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