



**ICT Solutions for
Brilliant Minds**

**REPORT OF THE BOARD
OF DIRECTORS**

2017

CSC – IT Center for Science Ltd’s operations in 2017

CSC – IT Center for Science Ltd (CSC) develops and provides world-class ICT expert services for research, education, culture, public administration and companies, thereby enabling them to succeed and generate benefits for society as a whole. Our primary customers are the Ministry of Education and Culture and organisations within its administrative sector, higher education institutions and research institutes, and the public administration. Our international operations boost the vitality of the Finnish research community and education system.

CSC develops solutions for science and education

CSC’s special mission is to help the Finnish science and education community be successful in its core activities. The combination, processing and analysis of big data require a computing and data management environment geared towards research needs, a fast national research network and high-quality expert support with understanding of researchers’ needs. CSC provides versatile scientific computing, data management, analysis and research administration solutions and customer training for the research sector.

The uptake of CSC’s services for science continued to grow in 2017. In service development, the focus was on services required for research in artificial intelligence and the processing of sensitive research data. The company additionally introduced a rapidly growing Notebooks service, which caters for data analytics needs in science and education. A service securing the long-term preservation of research results was also piloted. While the Ministry of Education and Culture’s Open Science and Research project was completed, the FAIRDATA package will carry on providing its services. Interaction with research institutes was also intensified to ensure that the offer of services and expert support can be expanded to new fields of research.

In 2017, CSC was getting ready for the Data Management and Computing Infrastructure Procurement project of its DL2021 development programme. Preparations were also made for “Funet 2020”, backbone network upgrade of the Funet data network for research and education, as well as service range development.

The nationwide solutions implemented by CSC facilitate the organisation of the practical aspects of training and teaching cooperation across organisational boundaries. In 2017, an increasing number of users benefited from the digitalisation of teaching and learning through solutions provided by CSC for all levels of education.

In the context of the national vocational education and training reform, the education administration’s steering and regulatory service Oiva was used to administrate operating licences, and the piloting of VARDA early childhood education data warehouse was launched. The machine-readable interfaces opened in Vipunen, the statistics service of the education administration, and VIRTANA National Data Warehouse for Higher Education met the expectations placed on them as enablers of private sector service innovations.

Tailored solutions support the digitalisation of public administration

CSC delivers comprehensive solutions for data management and use to the central government and municipalities in support of management by information and interoperability. These solutions typically support the public sector in unique projects or undertakings with an extremely long lifespan. The long-term preservation service implemented for the Ministry of Education and Culture will be used to store such data as cultural memory organisations’ materials.

CSC assumed an even stronger role as a partner to central government development projects: the company's expertise was relied on for such purposes as developing the application process for central government grants, collecting economic data from municipalities and counties, exploring the potential of using data analysis and reporting and artificial intelligence, carrying out eFinland projects and planning the Genome Centre.

CSC's special expertise comprises the design, implementation and maintenance of user identification across organisation boundaries, of which such trust networks as Haka and Virtu are examples. A stronger authentication solution that would improve identity and user authorisation management as well as an MPASSid identification solution for basic education needs were piloted.

Finances

The economic operating environment took a clear turn for the better during the accounting year, which was successful in financial terms. Significant growth was achieved through new customer relationships and new contracts as well as the expansion of existing customer operations, among other things. The company's turnover was EUR 40,523,583.27 (36,825,236.69) in 2017, with year-on-year growth of 10.0%.

Boosted by the growth in turnover, the accounting year profits were the best ever recorded, with bottom line figures even better than expected. The positive result was supported by sound cost management and the fact that the relative cost level remained similar to earlier years' levels. The result after financial items was EUR 1,590,278.79 (253,183.73), with profit for the financial year totalling EUR 1,268,672.93 (196,401.71). The company's R&D expenses for 2017 were equivalent to about 11.6% (9.8%) of net sales.

Key indicators for the financial year

Key indicators	2017	2016	2015	2014
Operating profit %	3.9%	0.7%	1.0%	0.7%
Return on equity	39.8%	8.0%	16.1%	8.9%
Return on investment	50.2%	10.7%	20.7%	11.7%
Quick ratio	2.2	2.0	2.5	2.4
Current ratio	1.0	0.9	0.8	0.8
Equity ratio	27.6%	27.9%	28.2%	25.1%
Gearing %	24.8%	17.9%	16.8%	18.3%

Employees

CSC had 317 employees at the end of 2017, of whom 92% had a permanent employment contract. The average length of service was 8.6 years and personnel turnover stood at 5.2%. 28% of the staff were women and 72% men.

In 2016, the social partners signed a Competitiveness Pact under which the agreed working hours contained in collective agreements were extended by 24 hours. CSC carried out this extension of working time as intended. In 2017, the practical method of deducting 24 hours from the staff's flexitime balances was used.

Mental working capacity plays a key role in information workers' motivation and ability to cope at work. CSC pays attention to this in a number of ways, such as involving and listening to personnel in work-related issues. CSC offers extensive occupational healthcare and health insurance, as well as a diverse range of subsidised opportunities for exercise, hobbies and recreational activities.

We are developing and designing our working environment to meet the needs of modern modes of working and our personnel's expectations. An extensive competitive tendering process concerning our facilities was carried out in 2017, in which key marginal conditions included the location of the staff and connections as well as the facilities' ability to meet the needs of changing work in the future. The outcome of the tendering process was that CSC will stay on its current premises, and the lease term was extended till 2026.

Key personnel indicators

Key indicators	2017	2016	2015	2014
No. of personnel	317	289	285	266
permanent	92%	92%	92%	93%
fixed-term	8%	8%	8%	7%
men	72%	73%	74%	75%
women	28%	27%	26%	25%

Age distribution	2017	2016	2015	2014
under 30	9%	6%	6%	6%
30-39	33%	36%	41%	43%
40-49	34%	36%	34%	34%
over 50	24%	22%	19%	18%
average age	42	42	41	41

Education	2017	2016	2015	2014
Elementary and vocational	16%	17%	18%	18%
University of applied science	15%	13%	14%	13%
University	52%	51%	49%	50%
Post-graduate	17%	19%	19%	19%

The environment

CSC is a pioneer in the sustainable development of ICT services and committed to promoting sustainable development targets in all of its operations. We seek to minimise the environmental loading caused by our activities.

Business flights and the electricity consumed by datacentres account for the largest share of CSC's environmental loading. CSC's datacentre in Kajaani is one of the most energy efficient in the world. The space efficiency of CSC's multi-space offices has improved.

In its material procurements, CSC adheres to Hansel framework agreements that take environmental perspectives into account. CSC's procurement policy also instructs employees to examine environmental factors at all stages, from planning to use and decommissioning.

In 2015, CSC performed the corporate energy review required from major companies at four-year intervals under the Energy Efficiency Act.

Risks and uncertainty factors

CSC's risk management programme covers strategic, operative and accident risks and assigns responsibilities for annual risk management tasks both to service production and management.

In 2017, key strategic risk factors for CSC were risks associated with procurements, contracts, access to services, staff, personal data protection and cybersecurity.

The internationally appreciated ISO/IEC 27001 certification granted to the security management and the risk management associated with it of certain CSC activities continued on the basis of an external follow-up evaluation.

Outlook

CSC's turnover is expected to grow by about 8.5% in 2018. While the rapid changes taking place in the operating environment require good capabilities for change management of the company, they also create significant opportunities for meeting future challenges and generating new growth.

In 2018, the main development area in services continues to be improving the national computing and data management environment as indicated by the needs of our customers, including research institutes. Launching Funet network upgrades is another significant project. Improving service usability is a constant target for development.

The automation of customer processes will continue, and customer service will be improved through better capabilities for identifying and anticipating customer needs and managing customer expectations. The ownership of higher education institutions is expected to boost demand.

CSC will continue to develop data production services to meet administrative requirements and the needs of its shareholders. These services include a statistics service and reporting portal for study management, and the Municipal Finance Information Service for the State Treasury. CSC will also support the development of shared architecture for education and research and promote its application.

The Board of Directors' proposal for the distribution of profit

The Board proposes that no dividend be paid and that the company's profit for 2017 (EUR 1,268,672.93) be transferred to retained earnings.

*CSC – IT Center for Science Ltd.
Board of Directors*



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