

CSC'S CORPORATE SOCIAL RESPONSIBILITY REPORT 2015

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1 ORGANISATION, CORPORATE GOVER-NANCE, AND OPERATING PRINCIPLES

1.1 BASIC INFORMATION

CSC – IT Center for Science is a wholly state-owned enterprise that maintains and develops the State's centralised IT infrastructures, through which it provides national IT services for research, the educational administration, government entities, and companies. Our customers include the Ministry of Education and Culture and organisations within its administrative sector, institutions of higher education, research institutes and companies. CSC provides services through centralised state-owned or state-funded IT infrastructures. We have offices in the Keilaniemi district of Espoo and Renforsin Ranta business park in Kajaani. CSC's net sales totalled EUR 35,584,728.85 in 2015, and the company employed 285 people at year-end.

The State of Finland is CSC's sole shareholder. The Ministry of Education and Culture is responsible for CSC's ownership steering and the assessment of its overall social and financial results. According to legislation on public procurements (338/2007) and the legal practice of the European Court of Justice, CSC is a state-administered, non-profit unit. CSC provides services for its shareholder at cost price without making a profit. In accordance with CSC's Articles of Association, the company may sell a small number of services to others on a commercial basis.

The primary norms pertaining to a state-owned company entrusted with a special mandate are based on the Finnish Limited Liability Companies Act (624/2006) and the State Shareholdings and Ownership Steering Act (1368/2007). CSC's governance is also subject to the Government resolution on state ownership policy (3 November 2011), the Ministerial Committee for Economic Policy's statement on rewarding (13 August 2012), its Articles of Association, and the principles and instructions defined by the Board of Directors. As an unlisted company, CSC also adheres to the applicable sections of the Corporate Governance Code for listed companies, issued by the Securities Market Association on 1 October 2010.

The Annual General Meeting, Board of Directors and Managing Director share responsibility for CSC's administration and operations. Annual General Meetings are held on an annual basis before the end of June. The Board of Directors consisted of seven members in 2015. *Mirjami Laitinen* was Chair of the Board of Directors and *Kimmo Koski* was the company's Managing Director.

1.2 SOCIAL RESPONSIBILITY MANAGEMENT AND OPERATING PRINCIPLES

In December 2015, CSC's Board of Directors approved the following updated values: **Responsibly, With** *care, Together, Expertise.* These values act as a basis for sustainable operations that consider the relationship between economic activities and ecological, social and cultural values. They are supported by the CSC Code of Conduct (published in 2012), which illustrates what we mean by good business practices and healthy interaction with interest groups, society and the environment.

CSC's Board of Directors monitors the management and implementation of social responsibility as part of its agenda. Every year, the Board meets to assess the Financial Statements and to review the social impact of CSC's services and their ability to provide society with added value in accordance with the company's special mandate. This assessment guides the Board's decision on the distribution of bonuses to management and personnel. The Board approves CSC's annually-updated risk management plan and the accepted residual risks. The Managing Director and Management Group are jointly responsible for ensuring that risk management has been appropriately arranged.

Responsibility management and the coordination of practical procedures are carried out through the company's ordinary management system. CSC's Management Group is responsible for internal monitoring, that is, the control and operational processes used for ensuring that we operate legally and profitably and report on our financial status and activities in a reliable manner. The CFO is responsible for internal auditing in cooperation with the company's auditor and other members of the company's management. CSC is committed to promoting sustainable development objectives, and environmental management is a routine aspect of the Management Group's activities.

Implementing the various areas of social responsibility is part of every CSC employee's daily work. Indicators promoting responsibility are used as the basis for rewarding our entire staff. In 2013, CSC's Board initiated a project aimed at developing the measurement of responsibility and this project was still ongoing in 2015.

1.3 STAKEHOLDERS AND STAKEHOLDER DIALOGUE

CSC has a number of stakeholders, each with their own expectations. We seek open and proactive dialogue with all stakeholders. We engage in the liveliest dialogue with customers, personnel, our shareholder, partners, and research infrastructure financiers. Other stakeholders include authorities, local communities, and the media.

Feedback received from stakeholders through various channels, including information about their expectations, plays a key role in our operations. Stakeholders' expectations are regularly assessed through surveys (customer surveys, personnel well-being surveys), regular meetings and quality conferences, and by following public debate.

In Appendix 1 (Stakeholder analysis), we analyse stakeholder expectations and present a summary of the actions we took in 2015.

The focuses of CSC's corporate social responsibility are based on a materiality analysis (Appendix 2). The analysis draws on feedback from customers, ownership steering, and cooperation partners, as well as information on the expectations of different stakeholders gained during the company's ordinary operations. As a result of the materiality analysis, the financial, social and environmental subareas of corporate social responsibility that are relevant to CSC and its stakeholders were identified.

2 FINANCIAL RESPONSIBILITY

2.1 FINANCIAL RESPONSIBILITY MANAGEMENT

CSC provides non-profit services for its shareholder in accordance with its Articles of Association. At CSC, financial responsibility means transparency and open financial management. CSC seeks to provide highquality yet cost-effective services.

2.1.1 Financial objectives

CSC's financial objectives for 2015 included cost transparency, strict cost control, and increasing cost awareness within the organisation. Activity-based costing enables accurate cost management and allows us to increase cost awareness. Another objective for 2015 was to expand our operations and contract base to generate moderate net sales growth.

2.2 FINANCIAL KEY INDICATORS

2015 was a financially successful year. We achieved our financial objectives for the year, and even exceeded some of them. Key indicators for CSC's financial performance and financial activities are presented in more detail in Section 10 Balance sheet book.

The following tables show key indicators, CSC's cash flow to stakeholders, and the amount and purpose of financial support received from the State.

CSC's result, solvency and liquidity were good.

KEY INDICATORS	2015	2014	2013	2012	2011
Operating profit, %	1.03	0.65	0.66	0.24	0.21
Return on equity	16.08%	8.93%	6.25%	5.28%	4.84%
Return on investment	20.69%	11.68%	10.35%	6.34%	8.49%
Quick ratio	2.5	2.4	2.8	2.8	3.0
Equity ratio	28.21%	25.13%	26.42%	28.15%	25.42%

2.2.1 Cash flow

STAKEHOLDERS	TEUR	DIRECT AND INDIRECT IMPACT
Customers	Net sales	Direct financial impact:
	TEUR 35,675	Through CSC, the Ministry of Education and Culture fulfils its obligation under the Information Management Act to promote
	Support from the EU, TEKES,	cooperation and IT system interoperability in the fields of edu- cation, science and culture.
	Academy of Finland	CSC's customers are given access to scientific computing ser- vices, an internationally esteemed information network, and
	TEUR 2,555	training and expert guidance in the use of supercomputers.
		Indirect financial impact:
		CSC has an impact on the competitiveness of Finnish research.
Suppliers	TEUR	Direct financial impact:
	-17 903	CSC primarily purchases goods and services from suppliers operating in Finland.
		Indirect financial impact:
		Cooperation creates business opportunities and jobs for suppliers.
Personnel	TEUR	Direct financial impact:
	-19 248	All of CSC's personnel are stationed in Finland. Personnel's sala- ries and bonuses have an impact on private consumption, and the taxes they pay contribute to social well-being.
		Indirect financial impact:
		CSC uses training and task rotation to enhance personnel's ex-
		pertise and performance. CSC's personnel have unique exper-
		tise in, for example, scientific computing, data management,
Public sector	TEUR -89	and storage services.
Non-profit	TEUR 0	Taxes paid by CSC to the State In accordance with its Code of Conduct, CSC does not make
organisations:		donations, support non-profit organisations, or sponsor any
support and		type of group.
donations given		
Shareholders	EUR€	CSC does not pay a dividend. CSC's operating profit of TEUR 171 was transferred to retained earnings in its entirety.
Financiers	TEUR -8	Financial expenses
	TEUR 83	Financial income
Result for the period	TEUR 350	The result for the financial year was transferred to retained earn- ings in its entirety.
Investments:	TEUR -712	CSC's own investments focus on the maintenance, monitoring
depreciation		and security of the state-owned and/or state-funded comput-
		ing environment and data infrastructure administered by the company.

2.2.2 The amount, nature and purpose of government support received

SUPPORT	TEUR	PURPOSE
Government subsidy	TEUR 2,515	The government subsidy is intended for the de- velopment of computing service infrastructure, service concepts, and data warehouse services.
Investment support from the Ministry of Education and Culture	TEUR 1,203	This support covers investments in the main- tenance, monitoring and security of the state- owned and/or state-funded computing environ- ment administered by the company.

3 PERSONNEL

3.1 HR MANAGEMENT

CSC seeks to be a desirable and responsible employer that inspires its personnel to get the best out of their expertise. CSC also wants to be actively involved in changing working methods, so that we can offer a variety of working environments and flexible work opportunities. Openness was our theme for 2015. One concrete step to increase openness was taken as part of the SpacePilot project – a new multi-functional office space and shared breakroom. This new solution seeks to increase community spirit, the free exchange of information, and spontaneous meetings. It also enables people to work in a variety of different environments.

Twice a year, all CSC personnel attend performance and development discussions in which their achievements during the previous period are evaluated and new targets are set for the following period. These discussions are supported by an online form that is signed by both parties. A personal development plan, which enables horizontal or vertical career paths, is also drawn up during these development discussions. Once a year, decisions are made on whether employees should be promoted to the next level on the basis of an assessment and proposal put forward by their supervisors.

The performance evaluation carried out during development discussions affects the size of the employee's personal performance-based incentive. The Board of Directors makes an annual decision on the size of the performance-based incentive and the criteria for awarding it, and also authorises the Managing Director to distribute the incentive amongst personnel. In 2015, the basic performance-based incentive comprised a basic component and a discretionary extra based on personal performance. Performance-based incentives may not exceed 12.5 per cent of annual salary.

3.2 PERSONNEL KEY INDICATORS

CSC had 285 employees at the end of 2015. Figure 1 shows a breakdown of personnel by role and gender. Figure 2 shows the age structure of CSC's personnel, with the average age being 41. 92 per cent of personnel had a permanent employment contract. 6 per cent of employees worked part time.



Figure 1. Breakdown of personnel by role and gender.

Age distribution



Figure 2. Age structure of CSC personnel and average age.

Turnover among permanent employees (Figure 3) increased significantly in 2015. Turnover was experienced in many different roles and units. However, our personnel turnover is still moderate in comparison to the industry average (for example, 7.9 per cent and 8.7 per cent in 2012 and 2010, Study by Great Place to Work®). The average length of service was 8.3 years. Just under half of all personnel have been working for CSC for fewer than five years (Figure 4). Eight people have retired from CSC in the period 2006–2015. The average age at retirement was 64. One to three people per year will be eligible to retire over the next few years.



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Period of service at CSC (31.12.)

Figure 4. Years of service and average length of service.

Figure 5 shows a breakdown of personnel by educational background. CSC's services are based on profound expertise. Personnel's expertise, versatility and ability to engage in solution-oriented activities play a key role in the company's success. CSC encourages lifelong learning and also supports further studies with sabbaticals for competence development. In 2015, personnel used a total of 563 training days, representing an average of 2.0 days per person. The aforementioned figures do not include learning on the job, which plays a considerable role in personnel development. Figure 6 shows a breakdown of training days used by gender.



Figure 5. Employees' educational background.



Training days per person

Figure 6. Breakdown of training days used by gender.

CSC has an comprehensive orientation programme for new employees, Login@csc, which is run twice a year as necessary. The programme includes a greeting from the Managing Director, a presentation of CSC's services and major stakeholders, a presentation of CSC's management system and strategy, HR matters, information security matters, financial jurisdiction, and the company's history. New supervisors also receive orientation in CSC's management methods.

Every other year, CSC conducts a well-being at work survey to analyse workplace atmosphere and personnel satisfaction. The last survey was carried out in December 2014 and the results were available in January 2015. The survey had the best response rate to date: 88 per cent. The results indicate that personnel are satisfied with, for example, investments in well-being, their opinions being sought during decision-making, and the developmental opportunities afforded by their work. Supervisory work and leadership culture were also rated highly in comparison to the control material. A programme of measures was planned on the basis of the survey and implemented during 2015. These measures included better communication of the grounds for decision-making and decisions, wider introduction of online tools for group work, improving information flow between units, and developing our working environment to meet the demands of modern working life.

CSC arranges its occupational healthcare in cooperation with Terveystalo. Four follow-up meetings are held with occupational healthcare personnel every year, as well as an annual meeting with management. Personnel representatives also attend these meetings. This arrangement ensures seamless cooperation and timely action in line with our early support model.

CSC's datacenters are challenging environments with regard to occupational safety. We seek to minimise the amount of time personnel spend working in these areas with the aid of technical monitoring and control solutions that can be operated from office premises. Access to datacenters was further restricted and, from now on, employees with access to these areas will be required to complete an induction course and have a valid safety card. Our operating instructions also require personnel to use appropriate protective gear in these areas. In accordance with legislation, those who regularly work in datacenters have their hearing monitored by our occupational healthcare team.

CSC's accident and sickness absence statistics are presented in Figures 7 and 8. Our accident frequency for 2015 was 21.1 per million work hours and our sickness absence rate was 2.8 per cent. There were no incidences of occupational diseases or work-related fatalities.



Occupational accidents

Figure 7. Number of accidents.



Theoretical total work, person-year

Figure 8. Breakdown of theoretical total working hours.

4 THE ENVIRONMENT

4.1 ENVIRONMENTAL MANAGEMENT

CSC is committed to promoting sustainable development targets in its operations. Environmental management is a routine aspect of the Management Group's work.

Business flights and the electricity consumed by datacenters account for the largest share of CSC's environmental loading. All of the electricity used at the Espoo and Kajaani datacenters and offices was environmentally friendly, origin-certified (Finextra Oy) hydroelectric power generated at hydroelectric power plants in Svartisen, Norway.

CSC's electricity consumption rose in 2015 due to increased capacity at our datacenters. However, as in 2014, energy-efficiency at datacenters remained at a good level and we had already exceeded our target for energy efficiency in previous years. We are seeking continual improvements in energy efficiency, that is, in our PUE value (Power Usage Effectiveness).

The greatest environmental risks associated with CSC's operations relate to the handling of the gas mixtures, refrigerants and generator fuel oils used in datacenter infrastructure, and the disposal of decommissioned equipment. The maintenance contracts signed by CSC require its suppliers to ensure that waste oil, used filters, old batteries and other comparable waste are disposed of in the appropriate manner. Refrigerants and gas extinguishants are recycled during maintenance or repairs. If this is not possible, the supplier arranges for their appropriate disposal. Generators are regularly refuelled to ensure that the quality of fuel oil remains good. Fuel oil quality is also monitored with scheduled analyses. The decommissioning of data equipment is agreed upon in procurement contracts. Equipment may either be returned to the manufacturer or separately recycled.

CSC set the following environmental objectives to be achieved by the end of 2015:

- CSC seeks energy efficient solutions in its datacenters.
- CSC seeks to save energy and natural resources, and to reduce its carbon footprint.
- CSC guides and supports personnel to ensure they are committed to and have adopted environmentally friendly working methods.

Our success in achieving these goals has been assessed in more detail in section 4.2 Environmental key indicators.

4.2 ENVIRONMENTAL KEY INDICATORS

4.2.1 Energy

Datacenter energy consumption

We were able to keep energy efficiency at our Espoo and Kajaani datacenters at the same level as in the previous year. The capacity of the Kajaani Datacenter increased when a second modular container (MDC2) went online in 2015. The production capacity of our supercomputers and other IT equipment also increased.

In 2015, CSC's electricity consumption totalled 14.8 GWh, 97 per cent of which (14.6 GWh) was accounted for by our datacenters (Figure 9). Electricity consumption rose by 19 per cent on the previous year. This rise in energy consumption was due to increased capacity and new equipment at the Kajaani datacent. Our datacenters run almost entirely on electricity. Only a small fraction of the energy consumed by our datacenters is used to the power diesel aggregators that provide them with a reserve power supply.

CSC's target for energy efficiency is an improvement of 9 per cent (on 2010) by 2016. Energy efficiency is measured using a PUE value (Power Usage Effectiveness), which is the total energy divided by the energy used by servers. This target perfectly adheres to the spirit of energy efficiency agreements. In 2015, CSC

once again exceeded its target by remaining at a good level of 11.46 per cent (Figure 10). We were able to improve energy efficiency by, for example, optimising cooling.

On a global scale, the energy efficiency of CSC's datacenters is excellent. Energy efficiency at CSC's Espoo datacenters remained at the same level as in the previous year, standing at 1.58 (1.57 in 2014) and 1.47 (1.45). Although total energy efficiency fell slightly at the Kajaani Datacenter (a PUE of 1.21 compared to 1.17 in 2014), its first modular container (MDC) achieved a world-class PUE of 1.03 (1.04). The introduction of new UPS systems to improve reliability also impacted on energy efficiency at the Kajaani Datacenter.



CSC Datacenter Energy Use 2005–2015

Figures 9 Datacenters and when they were taken into service:

- Kajaani Infra and Office: Other technical areas, test use, and office electricity (from 2012)
- Kajaani HPC Infra and IT: Electricity consumption of datacenter supercomputers (SISU and BULL) (taken into service in 2013)
- Kajaani MDC Infra and IT: Electricity consumption of modular datacenter (taken into service in 2013)
- · Kajaani MDC2 Infra and IT: 2. Electricity consumption of modular datacenter (taken into service in 2015)
- · Archives: Electricity consumption of storage systems (taken into service in 2012)
- Pohja Infra and IT: Electricity consumption of datacenter customer service production (taken into service in 2008)
- 2K Infra and IT: Electricity consumption of high-reliability datacenter (taken into service in 2005)



Energy efficiency at CSC's datacenters (PUE) (Improvement 11.46% in 2010–2015)



Office energy consumption

In 2015, electricity consumption at the Espoo office totalled 310 MWh, which represents 2.1 per cent of CSC's total electricity consumption. Consumption per person remained at the same level as in the previous year (Figure 11). CSC had 285 employees at year-end, so energy consumption per person equalled 1.1 MWh. Electricity consumption per person has declined by 26 per cent on 2010 (when measurements began).

CSC's office equipment base mainly consists of laptops, which use an average of one fourth less energy than desktop computers of comparable performance. The majority of the services provided in our office network have been virtualised, resulting in lower server electricity consumption and resource usage than comparable services provided using physical devices.



Office electricity consumption in 2010-2015

Figure 11. Office electricity consumption.

Heating

In 2015, CSC's office premises in Espoo used an estimated 973 MWh of the district heating supplied to companies in the Life Science Center Keilaniemi business park (Figure 12). About half of the district heating used by CSC was produced using renewable energy sources. Consumption equates to 3.4 MWh per person.

There has been a downswing in heating consumption in recent years and this continued in 2015, as the average temperature remained above the long-term average for an extended period. The waste energy generated at the Kajaani Datacenter was used to pre-heat the office premises.



District heating energy consumption 2010-2015

4.2.2 Air emissions

Greenhouse gas emissions are shown in tons of carbon dioxide (tCO²) and our calculations are based on the WWF's Climate Calculator (Figure 13). The emission coefficients used in the Climate Calculator are primarily intended to assess consumption-based emissions rather than production-based emissions. The greenhouse gas emissions caused by CSC's operations were therefore indirect. Direct greenhouse gas emissions are only produced by the diesel aggregators used as a reserve power supply for datacenters.

All of the electricity purchased for CSC's datacenters and office premises was renewable energy that did not generate any carbon dioxide emissions. However, carbon dioxide emissions rose due to an increase in air travel. As in previous years, CSC's second greatest source of carbon dioxide emissions was the district heating used in offices.



Greenhouse gas emissions in 2010-2015

Figure 12. CSC's district heating consumption in Espoo.

Figure 13. Greenhouse gas emissions in tons of carbon dioxide (tCO₂).

4.2.3 Water

Although CSC is not a major consumer of water, personnel have been advised not to leave taps running unnecessarily. We have also sought to reduce water consumption at our Espoo office by lowering water pressure in breakroom kitchens, toilets, and public areas.

A total of 200 cubic metres of water was used at the Kajaani office and datacenter for cooling and air humidification. A precise figure for CSC's water consumption in Espoo cannot be given, as the property does not have lessor-specific water meters. Our Espoo datacenters employ a closed loop water cooling system with minimal water requirements.

4.2.4 Waste

All CSC employees sort the waste generated at their workstation into the appropriate waste receptacles located on each floor. Recycling guidelines are displayed at office recycling points. There are receptacles for paper, energy waste and confidential paper waste, and also biowaste receptacles in breakroom kitchens. The number of mixed waste receptacles has been minimised to boost recycling. CSC also has a cardboard recycling point and an information security receptacle designed for discs, tapes and other items that must be destroyed.

The property's waste room also has receptacles for glass, batteries, fluorescent bulbs, and IT scrap. CSC aims for the highest possible waste-sorting rate and we always seek to recycle usable goods. For example, the office supply room has a shelf for used office supplies, and lotteries are run to distribute used IT equipment and furniture to personnel.

As other companies in the property also use the same waste room as CSC, it is not possible to give a precise figure for the waste sections generated by CSC.

4.2.5 Compliance and environmental expenses

Potential environmental risks at datacenters are managed in accordance with current regulations. No environmental accidents were reported in 2015. The office does not use hazardous substances.

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

The report indicated that measures were required to improve electrical energy efficiency at the datacenter, with regard to improving air flow management and renewing UPS equipment. The report also stated that CSC's exceptional openness in publishing the energy efficiency (PUE) values of its datacenters was worthy of mention.

4.2.6 Products and services

CSC primarily provides e-services, and all of the electricity required in 2015 was renewable energy. We have been able to continually improve the energy efficiency of our datacenters. The majority of the services we provide have been virtualised, resulting in lower server electricity consumption and resource usage than for services implemented using physical devices.

4.2.7 Transportation

CSC's role in Finnish and international research infrastructures requires networking and, therefore, travel. We have focused our travel-related procurements on government-tendered airline and accommodation services with environmental criteria. We have sought to reduce travel by increasing opportunities for teleconferences. We encourage personnel to use public transport by providing Helsinki Region Transport (HSL) travel cards for local business trips.

International air travel in particular increased in 2015 in comparison to 2014 (Figure 14).



Business flights from 2010 to 2015

Figure 14. Flight kilometers for business trips.

Domestic train travel also increased on the previous year, as did kilometre allowances for employees using their own cars. Taxi usage remained the same as in 2014 (Figure 15).



Travelling at CSC from 2012 to 2015

Figure 15. Breakdown of business trips by mode of transport.

4.2.8 Materials

In its material procurement, CSC adheres to Hansel framework agreements that take environmental perspectives into account. CSC's procurement guidelines instruct purchasers to consider environmental factors in accordance with the lifecycle model: during the planning phase, during use, and at the end of the cycle. These environmental factors could be, for example, the consumption of energy, water and other natural resources; the use of recycled materials in product manufacture; the recyclability of products; the volume and grade of waste generated; and the presence of hazardous materials.

Paper consumption

There is a multifunction device on each of CSC's office floors (a total of seven machines). Double-sided, black-and-white printing has been set as default. If required, colour print-outs can be made by choosing the appropriate function. 15 CSC personnel have their own private printer.

The multifunction devices go into low-power mode after being unused for two hours and into energysaving mode after being unused for four hours, yet remain ready to print immediately when required. Paper consumption in 2015 was 1,196 printouts per person (Figure 16).





Figure 16. Office paper consumption.

Office furniture and furnishings

Development projects led to more furniture and furnishings being acquired than in previous years. We opened a new multi-functional office space measuring about 200 m², and carried out renovations to create a new shared breakroom and meeting place for personnel. In 2015, we began acquiring furniture and furnishings through leasing agreements, which will boost the recycling of old furniture. We also acquired furniture from recycling centres and donated our used furniture to other companies through a recycling service.

Office equipment

CSC mainly acquires office equipment through leasing agreements. Equipment is used for 2–5 years, depending on the lifecycle of the device. The useful life of mobile phones is usually shorter than that of, for example, monitors.

Used devices are returned to the 3 Step IT leasing company, which either sells or scraps them after a security wipe has been performed. This saves resources and reduces environmental loading.

5 SOCIAL RESPONSIBILITY

CSC's Code of Conduct was approved in 2012 and contains principles concerning bribery, corruption, and exerting political influence. The Code governs all CSC personnel, including the Board of Directors, and its principles are included in our orientation programme. The Code has also been published on our website. Our goods and service providers are expected to adhere to the same principles. CSC complies with the UN Convention against Corruption (UNCAC) and the OECD (Organisation for Economic Co-operation and Development) Anti-Bribery Convention. We will not accept any action that seeks to influence our own or our stakeholders' judgement. Neither do we provide any direct or indirect support for political party candidates, parties, or political groups.

CSC does not engage in market-based business activities. In accordance with our Articles of Association, we provide services to the organisations specified by our shareholder in the business areas specified by our shareholder (a special mandate). The Ministry of Education and Culture is responsible for ownership steering on behalf of the State. In accordance with the legal practice of the European Court of Justice, CSC can, as a state-administered, non-profit unit sell non-tendered services to central administration organisations. Sales to non-state parties cannot account for more than 10 per cent of net sales.

6 PRODUCT AND SERVICE RESPONSIBILITY

CSC's operations are based on good, transparent management, compliance with data protection regulations, and adherence to best practices in security, service provision and internal operations.

In recognition of our success in the aforementioned areas, CSC has been granted the esteemed international ISO/IEC 27001 certificate for Information Security Management. With the aid of this certificate, which is based on reliable third-party verification, CSC can demonstrate its ability to manage, control and continually improve the information security of its services and operations. The certificate awarded to CSC covers our datacenters, ICT platforms, long-term preservation (LTP), and IaaS cloud services.

CSC's management system covers a broad range of areas including leadership, HR management, communications, stakeholder relations, contractual matters, premises, risk and deviations, resource management, and access control. CSC has several sets of internal guidelines that relate to data protection and transparency in particular: our administrator's guidelines, data protection guidelines, and email policy.

You can read more about how we implement data security at www.csc.fi/en/web/guest/security.

We monitor service availability and service-related guidelines, responsibilities and classifications on the basis of our internal production catalogue. CSC's Management Group discusses any significant deviations in information security.

Service-related responsibilities are agreed upon with customers and suppliers in service contracts and their associated security agreements. Service quality is monitored during regular quality conferences.

CSC regularly conducts customer satisfaction surveys to measure the quality of its services, and customers' expectations and experiences. Surveys targeted at customers and stakeholders also monitor feedback on service security. The next survey will be conducted in early 2016.

7 HUMAN RIGHTS

CSC's Code of Conduct provides a comprehensive description of the human rights principles that we adhere to in all of our operations. These are supplemented by our statutory equality plan, which is regularly updated and contains practical measures for ensuring equality. CSC regularly surveys personnel's experiences of equal treatment in connection with its well-being survey. Every supervisor is responsible for ensuring that equality principles are adhered to in practice. If necessary, issues relating to equality and discrimination will be investigated by industrial safety delegates. Collective negotiations between the company and personnel groups are standard procedure. In these negotiations, the company is represented by the HR director.

8 SUPPLY CHAINS

CSC adheres to its own procurement guidelines and the Act (348/2007) and Decree (614/2007) on public procurements. Procurement is also steered by legal practice relating to the Act on Public Contracts. Other legislative requirements are also considered, such as the Act on the Openness of Government Activities and, on a case-by-case basis, also the Act on the Contractor's Obligations and Liability When Work is Tendered Out and other procurement-related acts. Even minor procurements that do not fall within the scope of the Act on Public Contracts are tendered out in accordance with CSC's procurement guidelines. For strategically significant procurements, suppliers' subcontractors must also be approved in advance.

CSC has joined several of Hansel Oy's framework agreements with goods and service providers. Unless there is a particular reason not to, CSC always uses framework agreements tendered by Hansel Oy. Hansel Oy's framework agreements for computers, auxiliary devices, mobile phones and printers adhere to the principles of sustainable development and therefore take environmental perspectives into account. A 2010 Government resolution states that environmental perspectives should be considered in 70 per cent of government procurement. Hansel's framework agreements also consider environmental perspectives for scheduled flights, rail travel, and sea travel.

CSC's procurement guidelines instruct purchasers to consider environmental factors in accordance with the lifecycle model: during the planning phase, during use, and at the end of the cycle. These environmental factors could be, for example, the consumption of energy, water and other natural resources; the use of recycled materials in product manufacture; the recyclability of products; the volume and grade of waste generated; and the presence of hazardous materials. When planning procurements, personnel also have a materials bank for sustainable procurement, tendering guidelines, and a carbon footprint calculator at their disposal.

CSC includes all information security requirements in its calls for tenders. Procurement contracts, and in particular those for IT services, software and equipment, will have a separate security appendix. If necessary, the head of information security or his/her named representative will be involved in the planning and implementation phases of a procurement.

9 REPORTING PRINCIPLES AND FORMULAE

9.1 REPORTING PRINCIPLES

CSC's Corporate Social Responsibility Report is published annually in conjunction with the Annual Report. The report covers all operations under CSC's control. Consolidated data includes information about our Espoo and Kajaani locations and any operations that involve CSC personnel. Comparison data for the previous year is presented in accordance with the organisational model and operations of the year in question. Earlier key indicators have not been converted to reflect later changes.

As CSC does not have a direct or indirect holding of 50 per cent or more in any company (Tivit Oy, Otaverkko Oy, SalWe Oy), no information about these companies is included in the Corporate Social Responsibility Report. Reporting on management practices does not extend to these minority holdings either.

CSC is aware of the challenges posed by gathering and collating data, and seeks to develop appropriate monitoring practices.

9.2 FORMULAE

The data used to calculate key indicators for financial responsibility has been collated from our accounting system and the audited Financial Statements. Key indicators have been calculated as follows:

```
Operating profit, % = operating profit / net sales*100
Return on equity = (operating profit - taxes) / equity*100
Return on investment = (operating profit - taxes) / capital employed*100
Quick ratio = current assets / current liabilities
Equity ratio = equity / balance sheet total*100
```

At the Espoo and Kajaani datacenters, the energy consumed by infrastructure and on-site IT systems is separately monitored. Energy efficiency is measured with a PUE value (Power Usage Effectiveness) as follows:

PUE = (total energy used by the datacenter) / (energy used by servers)

PUE does not provide a complete picture of energy efficiency, as it should take the datacenter's usage rate into account. However, being the most internationally used benchmark, we chose PUE as a key indicator for its comparability.

CSC's data on HR responsibility is taken from a variety of source systems, such as the working-hour monitoring system and personnel database (AD). HR management personnel are appointed to collate the information and submit reports on the required key indicators and statistics. Key indicators have been calculated as follows:

Turnover =	(number of employees leaving the company 1 Jan–31 Dec) /
	(number of employees at 31 Dec) x 100%
Accident frequency =	(number of accidents 1 Jan-31 Dec) / (1,000,000 hours worked)
Sickness absence rate, % =	(number of days of sickness absence 1 Jan–31 Dec) /
	(theoretical standard workings hours 1 Jan–31 Dec) x 100%

9.3 CORRESPONDENCE WITH THE GOVERNMENT RESOLUTION ON STATE OWNERSHIP POLICY (3 NOVEMBER 2011)

The following table compares the scope of CSC's corporate social responsibility reporting to the model defined by the Government resolution on state ownership policy (3 November 2011). The table uses the following abbreviations to indicate where the relevant information may be found:

• FS = Financial Statements

• CSR = Corporate Social Responsibility Report

ID	REPORTING IN ACCORDANCE WITH THE GOVERNMENT RESOLUTION ON STATE OWNERSHIP POLICY (3 NOVEMBER 2011).	IN- CLUD- ED	DOCU- MENT AND PAGE NUMBER	ADDITIONAL INFORMATION / DEFICIENCIES / EXCEPTIONS
1	Organisation, Corporate Governance, and operating principles			
1.1	Basic information	Yes	CSR 3	
1.2	Social responsibility management and operating principles	Yes	CSR 3	
1.3	Stakeholders and stakeholder dialogue	Partially	CSR 4	
2	Financial responsibility			
2.1	Financial responsibility management	Yes	CSR 5	
2.1.1	Financial targets and their achievement	Yes	CSR 5 FS	
2.2	Financial key indicators	Yes	CSR 5	
2.2.1	Cash flow to stakeholders	Yes	CSR 6	Notes to the Financial Statements, 31 Dec 2014
2.2.2	Support for non-profit organisations and sponsorship	No		CSC neither supports non-profit organisa- tions nor sponsors any groups.
2.2.3	Financial support received from the State	Yes	CSR 7	
3	Personnel			
3.1	HR management	Yes	CSR 8	
3.1.1	HR management	Yes	CSR 8	
3.1.2	HR targets	Yes	CSR 8	
3.2	Number and breakdown of personnel	Yes	CSR 8	
3.2.1	Number of personnel	Yes	CSR 8	
3.2.2	Employment contracts	Yes	CSR 10	
3.2.3	Turnover	Yes	CSR 9	
3.2.4	Length of service	Yes	CSR 10	
3.2.5	Age structure	Yes	CSR 9	
3.3	Reorganisations and redundancies / Employer-personnel relations			
3.3.1	Terminations and lay-offs	No		CSC has never made any redundancies or lay-offs.
3.4	Equality			
3.4.1	Gender breakdown	Yes	CSR 8	
3.4.2	Equality plan	Yes	CSR 22	
3.5	Remuneration			

7 5 4		N	CCD 0	
3.5.1	Remuneration system and performance- based incentives	Yes	CSR 8	
3.6	Competence development and training			
3.6.1	Development discussions	Yes	CSR 8	
3.6.2	Training and competence development	Yes	CSR 10-11	
3.7	Well-being at work			
3.7.1	Personnel satisfaction	Yes	CSR 11	
3.7.2	Working capacity and well-being	Yes	CSR 11	
3.8	Occupational health and safety			
3.8.1	Accidents	Yes	CSR 11-12	
3.8.2	Sickness absences	Yes	CSR 11-12	
3.8.3	Occupational health	Yes	CSR 11-12	
4	The environment			
4.1	Environmental management			
4.1.1	Key environmental impacts of operations	Yes	CSR 13	
4.1.2	Environmental management	Yes	CSR 13	
			1	
4.1.3	Environmental targets and their achieve- ment	Yes	CSR 13	
4.2	Environmental key indicators			
4.2.1	Energy	Yes	CSR 13-16	
4.2.2	Air emissions	Yes	CSR 16	
4.2.3	Water	Partially	CSR 17	Estimate given, as meas- urement impossible. The property does not contain lessor-specific water meters.
4.2.4	Waste	Partially	CSR 17	The property has a common waste area and the proportion generated by CSC cannot be measured.
4.2.5	Compliance and environmental expenses	No	CSR 17	No environmental damage has occurred.
4.2.6	Products and services	Yes	CSR 17	
4.2.7	Transportation	Yes	CSR 17-18	
4.2.8	Materials	Yes	CSR 18-19	
5	Social responsibility			
5.1	Local communities			
5.1.1	Impact on local communities	Partially	CSR 4, 13–14	Estimated in relation to environmental perspectives.
5.2	Bribery and corruption			
5.2.1	Measures and practices to combat brib- ery and corruption	Yes	CSR 20	
5.3	Political influence			
5.3.1	Political influence and support	Yes	CSR 20	CSC does not directly or indirectly support any political activities.
				any portiour doutineo.
5.4	Restriction on competition			
5.4 5.4.1	Restriction on competition Compliance with competition law	Yes	CSR 20	

5.5.1	Compliance with legislation and regulations	Yes	CSR 21	CSC has not been involved in legal pro- ceedings or received any fines or sanctions.
6	Product responsibility			
6.1	Customer satisfaction			
6.1.1	Customer service and customer satisfac- tion	Yes	CSR 21	
6.2	The health and safety of products and services	No		CSC produces intangible services.
6.3	Product and service information and marketing communications	Yes	CSR 21	
6.4	Protecting documents and privacy	Yes	CSR 23	
6.5	Sustainable consumption	Yes	CSR 13-19	
7	Human rights			
7.1	Human rights issues relating to opera- tions	Partially	CSR 22	No clear human rights targets have been set.
8	Supply chains			
8.1	Supply chain management			
8.1.1	Procurement principles and policies	Yes	CSR 22	
9	Reporting principles and formulae			
9.1	Reporting principles	Yes	CSR 24	
9.2	Formulae	Yes	CSR 24	

REPORT OF THE BOARD OF DIRECTORS, 1 JAN 2015–31 DEC 2015

CSC - IT CENTER FOR SCIENCE LTD'S OPERATIONS IN 2015

As part of the national research system, CSC – IT Center for Science develops, integrates and provides highquality information technology services for research, the educational administration, government entities, and companies. CSC's customers include the Ministry of Education and Culture (OKM), institutions of higher education, research institutes, and companies. CSC's main tasks are to provide expert, software and information services in science and IT, national and international telecommunications links, and high-performance computing resources for processing and storing large volumes of data. In accordance with its special mandate, CSC provides its services at cost price without making a profit.

2015 was a financially successful year. We achieved our financial objectives for the year, and even exceeded some of them. CSC's net sales totalled EUR 35,675,122.76 in 2015 (32,688,759.76), representing growth of 9.1 per cent on the previous year. Growth was generated particularly by new business operations and an extended contractual base. The result after financial items was EUR 438,981.69 (EUR 215,933.81), and profit for the financial year totalled EUR 350,283.31 (EUR 171,202.60). Our profit for the financial year was slightly weaker than forecast.

The company's R&D expenses for 2015 were equivalent to about 9.3 per cent (15 per cent) of net sales.

KEY INDICATORS FOR THE FINANCIAL YEAR

Key indicators	2015	2014	2013	2012
Operating profit, %	1.03	0.65	0.66	0.24
Return on equity	16.08%	8.93%	6.25%	5.28%
Return on investment	20.69%	11.68%	10.35%	6.34%
Quick ratio	2.5	2.4	2.8	2.8
Equity ratio	28.21%	25.13%	26.42%	28.15%

CSC's result, solvency and liquidity were good for a non-profit company.

RISKS AND UNCERTAINTY FACTORS

CSC's risk management covers strategic, operative and accident risks, including the company's responsibility to mitigate them in accordance with best practices.

Significant risks identified in 2015 were changes in the company's operating environment, risks associated with stakeholders, risks associated with cloud services, and information security and cyber risks. No significant risks were realised in 2015. Cloud services were introduced, and no significant security breaches or service breaks were experienced to weaken users' confidence.

We extended our ISO/IEC 27001 Information Security Management certificate to cover our Pouta laaS service and the long-term preservation of materials delivered by CSC.

CSC's was also assessed on the basis of the elevated information security level that applies to public administration.

MAJOR EVENTS OF THE FINANCIAL YEAR

Services and infrastructure

During 2015, CSC introduced a new customer relationship management model and nine customer relationships managers were appointed to handle different customer groups alongside their other tasks. This change seeks to improve the recognition of CSC's services among customers and stakeholders, enhance our customer experience, gain a better understanding of our customers' needs, and generate growth in strategically significant areas.

We launched preparations to update scientific computing infrastructure, thereby safeguarding future research resources. There is vigorous growth in research requiring supercomputers and, in practice, equipment that meets the requirements of research must be renewed at four-year intervals. The Taito supercluster was opened to customers in early 2015 after a second-phase update. CSC Sisu fell slightly in the Top 500 world ranking of supercomputers (to 59th place). In late 2015, CSC surveyed Finnish researchers' opinions on what sorts of services and computing and storage resources would be required by research in 2017–2021.

CSC expanded its range of cloud computing services when the ePouta service was launched in May. ePouta is suitable for all fields of science, and especially those that need to process confidential data or meet the special requirements of the biosciences and research.

CSC's international ISO 27001 Information Security Management certificate was extended to cover the National Digital Library's long-term preservation service (LTP), and CSC's ePouta and cPouta cloud services. The Language Bank – a language research service centre that is administered by CSC and coordinated by the national FIN-CLARIN consortium – was awarded a Data Seal of Approval (DSA).

CSC bolstered its position at the forefront of educational digitisation by establishing a new service area: Interoperability services for education and research. We supported a consortium of 19 institutions of higher education in the development of Examin, an application for online testing and exam aquariums that facilitates exam organisation and enables more flexible working methods for students. The flexible study rights consortium (JOOPAS) started using Puro, an application that utilises the VIRTA service to transfer study credits. OILI – a student and academic year registration service that also utilises data from VIRTA – was also extended to existing students. CSC implemented OIVA, a steering and regulation service for primary vocational education. OIVA's open data resource determines the educational programmes that are stored in the Studyinfo.fi service. Its public knowledge base also enables the creation of e-services between educational organisations and the Ministry of Education and Culture.

Eduuni was extended to the corporate sector, and to international and other partners. CSC developed and administers this service, which enables cooperation across organisational borders.

Developing datacenter ecosystems is one of CSC's key Government Programme objectives, and this topic also received media attention in 2015. Finland's competitiveness can be promoted by attracting foreign investments in its datacenters. Finland offers a number of advantages, such as its geographical location, political stability and high level of information security, and the potential to achieve significant cost savings. Finland should actively create datacenter ecosystems in which companies and other parties can collaborate on the creation of new services and jobs.

Growth continued at the Kajaani Datacenter in 2015, and a second machine room module went online. In spring 2015, two universities and 14 universities of applied sciences began to use the Kajaani Datacenter's new machine room module, which was primarily developed for use by Finnish institutions of higher education and their shared services. The Government ICT Centre Valtori signed an agreement with CSC for the use of machine room space and related expert services.

The Funet network's first 100 Gbit/s link went on line in January. The first Funet link implemented using 100GE technology is an international connection between Helsinki and the Nordic NORDUnet research network. A five-fold increase in transfer capacity enables even faster and more cost-effective data transfer. By the end of the year, the majority of the network had been updated to use the secure 100 Gbit/s connection. The Funet network's MPLS services were also introduced during 2015. These services enable the faster and more affordable creation of separate connections between campuses and other locations.

There was a significant increase in the number of people using eduroam, an international roaming access service. Over two million successful eduroam logins are currently being made every month. The number of people using other Funet services, such as Funet Tiimi (Adobe Connect web conferencing), Funet Silta (video conferencing) and Funet FileSender (file sharing), also increased significantly.

CSC acquired and introduced a new server environment for library consortiums in higher education; built a central server environment and related support processes for the national data exchange layer (which is now in production); and implemented new services for the Finnish Matriculation Examination Board and Statistics Finland.

CSC also sought to reach new user groups with its research services. Cooperation with researchers in the digital humanities was launched by, for example, participating in the first International Conference on Computational Social Science in Helsinki and offering researchers datasets and analysis tools. For example, free access to data from Finland's largest social media channel, Suomi24, was given to researchers on CSC servers.

Cooperation and projects

CSC's involvement in international cooperation networks aims to support the internationalisation of Finnish research and boost its competitiveness. In 2015, CSC was involved in ten projects within the European Union's Horizon 2020 framework programme, receiving EUR 6.7 million in funding. The framework programme will be funding European research and innovation projects in 2014–2020.

ELIXIR (European life-science infrastructure for biological information) received EU funding of EUR 19 million, which will be used to accelerate the implementation of the infrastructure over the next four years. Finland ELIXIR, which opened in May and is run by CSC, specialises in the processing and security of biological data to support the use of research data, such as in the creation of healthcare applications.

The EUDAT projects coordinated by CSC were granted funding of EUR 19 million by the EU Horizon 2020 framework agreement. EUDAT is developing competence, technological solutions and services related to research data and the common European data infrastructure for all European researchers.

In the summer, the Academy of Finland's Research Infrastructure Committee granted conditional funding of EUR 12.8 million for the creation of EISCAT 3D, an international scientific radar system. CSC is planning data connections that will be able to transfer research data and assist the EISCAT community with the processing of metadata.

CSC implemented a world-class decentralised computing infrastructure for the FGCI (Finnish Grid and Cloud Infrastructure) in cooperation with Dell. The FGCI – an organisation that is funded by the Academy of Finland and 13 Finnish research organisations – is a unique collaborative consortium that includes almost all of Finland's research universities.

On the basis of a proposal by CSC, the Academy of Finland's Research Infrastructure Committee decided that Finland would commit to membership in PRACE 2 and allocated a total of EUR 5 million in funding for this purpose for the period 2016–2020. The Committee also awarded additional funding to CSC to coordinate national PRACE 2 membership.

CSC coordinated the Ministry of Education and Culture's international EMREX project using Erasmus+ funding. EMREX will enable the transfer of student data from one country to another using trusted networks and national study information services. The project will promote international mobility and the recognition of previously acquired skills.

The Ministry of Education and Culture began to promote the centralised introduction of ORCID researcher IDs in Finland through CSC. CSC's role is to promote the introduction of ORCID researcher IDs by increasing awareness of the service among institutions of higher education, other research organisations and service providers. CSC will also support organisations in linking ORCID to their systems and processes.

Under guidance from the Ministry of Education and Culture, CSC developed MPASS, an electronic identification solution for school children. Pilot use began in late 2015. CSC provided consulting services to the Population Register Centre in the national service architecture identification project, whose beta version beta.suomi.fi was launched in December. In the international AARC project, CSC defined preliminary requirements for reliable electronic identification that will be used to improve the interoperability of research infrastructures.

The Ministry of Finance increased its cooperation with CSC by extending the JulkICTLab project to the end of 2015. Implementation of the project, expert services, developer's tools and capacity services were acquired from CSC as an end-to-end delivery. The Ministry also decided to put the JulkICTLab into production in early 2016. JulkICTLab is a central resource in the development of a number of projects, such as the national service architecture programme (KaPA), components in the Kuntatieto programme, and a package of interoperability services for public administration (a priority project in the Government Programme).

The Elmer software suite was adapted for use in electromechanical modelling as part of the SEMTEC project, which was financed with a combination of TEKES and corporate funding. CSC, VTT, seven Finnish companies in the electromechanical industry, and three university research laboratories are involved in this joint project. It seeks to take a huge step forward by harnessing heavy 3D computing to create a competitive edge for Finland's electromechanical industry.

The Ministry of Education and Culture's Open Science and Research Initiative launched an Open Science Expert Training Programme in autumn 2015.

2016

Growth in CSC's business is expected to slow in 2016. The estimated growth rate for 2016 is about 1.0 per cent. Changes in CSC's operating environment and ownership structure will generate both new challenges and new opportunities. We will address these changes by boosting the efficiency of our operations and processes.

New factors will affect CSC's operating environment in 2016, such as the research institution reform, the Strategic Research Council's activities, the continuation of efficiency programmes in public administration, and developments in the ICT sector. The Finnish Government's strategic policies and the priority projects planned to implement them also contain areas that relate to CSC's operating environment: digitalisation, harnessing big data, and deregulation will all affect CSC. Progress in the EU's Horizon 2020 programme, the development of the EU Digital Single Market, and updates to the European Strategy Forum on Research Infrastructures (ESFRI) Roadmap will also have an impact on our operating environment. The Finnish Research Infrastructure (FIRI) Roadmap published in 2014 will continue to dictate CSC's future. Key strategies, plans and programmes drawn up by the Ministry of Education and Culture and other ministries will also exert a background influence.

PERSONNEL

CSC was extremely successful in raising its visibility as an employer. Investments were made through many channels. We measured our corporate image by participating in Universum's student survey, and achieved our best ranking to date (19th). In recruiting and job markets, the general economic situation caused large variations in the number of applicants.

We completed the SpacePilot premises project that was launched in late 2014. We needed more space to accommodate the increasing number of employees, so we decided to plan a new multi-functional space without permanently assigned workstations. We also wanted to meet the changing requirements of expert tasks. The new solutions have strengthened our sense of community, increased dialogue, created a new group work culture, and increased the flexibility of our premises.

As CSC's service offering grows and changes, CSC encourages internal job rotation and learning by providing the necessary training and orientation, and using numerous methods to support on-the-job learning.

Every other year, CSC conducts a well-being at work survey to analyse workplace atmosphere and personnel satisfaction. A programme of measures was planned on the basis of the 2014 survey and implemented during 2015. These measures included better communication of the grounds for decision-making and decisions, wider introduction of online tools for group work, improving information flow between units, and developing our working environment to meet the demands of modern working life.

The number of employees rose slightly during 2015. CSC had 285 employees on 31 December 2015. The average number of employees was 281 and the number of person-years 277. CSC's age distribution has remained good, with an average age of 41.

Key indicators	2015	2014	2013	2012
number of personnel	285	266	254	251
permanent	263	247	235	227
fixed-term	22	19	19	24
men	74%	75%	74%	74%
women	26%	25%	26%	26%
Age distribution	2015	2014	2013	2012
under 30	6%	6%	4%	7%
30-39	41%	43%	44%	47%
40-49	34%	34%	36%	30%
over 50	19%	18%	16%	16%
average age	41	41	41	40
Training	2015	2014	2013	
basic and vocational	18%	18%	19%	
university of applied	14%	13%	14%	
sciences				
university	49%	50%	48%	
post-graduate degrees	19%	19%	19%	

THE ENVIRONMENT

Business flights and the electricity consumed by the Espoo and Kajaani datacenters account for the majority of CSC's environmental loading. CSC's electricity consumption rose in 2015 due to increased capacity at our datacenters. The energy efficiency of our datacenters remained at the previous year's good level, and we have already exceeded our target. We are seeking continual improvements in energy efficiency (PUE value).

CSC's energy consumption for 2015 totalled 14.8 GWh, 98 per cent of which was accounted for by our datacenters. Electricity consumption rose by 19 per cent on the previous year. 14.6 GWh of electricity was consumed by our datacenters and 310 MWh by our offices. This rise in energy consumption was due to increased capacity and new equipment at the Kajaani datacenter.

All of the electricity used at the Espoo and Kajaani datacenters and offices was environmentally friendly, origin-certified (Finextra Oy) hydroelectric power generated at hydroelectric power plants in Svartisen, Nor-way.

On a global scale, the energy efficiency of CSC's datacenters is excellent. Energy efficiency (PUE) at CSC's Espoo datacenters remained at the same level as in the previous year, standing at 1.58 (1.57 in 2014) and 1.47 (1.45). Although total energy efficiency fell slightly at the Kajaani Datacenter (a PUE of 1.21 compared to 1.17 in 2014), its first modular container (MDC) achieved a world-class PUE of 1.03 (1.04). Overall energy efficiency fell slightly, as a new UPS system to ensure an uninterrupted power supply was installed at the Kajaani Datacenter to improve reliability.

CSC's greatest sources of carbon dioxide emissions are air travel and the district heating used to heat office premises in Espoo. In our material procurements, we consider environmental perspectives whenever possible.

THE BOARD OF DIRECTORS' PROPOSAL FOR THE DISTRIBUTION OF PROFIT

The Board proposes that no dividend be paid and the company's profit for the financial year (EUR 350,283.31) be transferred to retained earnings.

BALANCE SHEET BOOK, 1 JAN 2015-31 DEC 2015

INCOME STATEMENT

	1 Jan-31 Dec 2015	1 Jan-31 Dec 2014
EUR		
Net sales	35,675,122.76	32,688,759.76
Other operating income	2,555,494.76	3,882,685.96
Personnel expenses		17,554,294.40
Depreciation		
Other operating expenses	17,903,063.60	18,120,606.93
Operating profit/loss	367,210.17	212,914.93
Financial income and expenses	71,771.52	3,018.88
Profit before extraordinary items	438,981.69	215,933.81
Direct taxes	-88,698.38	-44,731.21
Profit/loss for the financial year	350,283.31	171,202.60

BALANCE SHEET

Assets	31 Dec 2015	31 Dec 2014
EUR		
Non-current assets		
Intangible assets	12,513.68	4,406.44
Tangible assets	4,706,824.21	5,334,305.57
Investments	255,522.82	255,522.82
	4,974,860.71	5,594,234.83
Current assets		
Current receivables	6,235,866.19	9,088,796.94
Financial securities	988,941.05	2,008,478.07
Cash and cash equivalents	7,563,469.38	3,040,559.48
	14,788,276.62	14,137,834.49
	19,763,137.33	19,732,069.32
Liabilities	31 Dec 2015	31 Dec 2014
EUR		
Shareholders' equity		
Share capital	1,000,000.00	1,000,000.00
Unrestricted invested shareholders' equity	200,000.00	200,000.00
Retained earnings	802,972.69	631,770.09
Profit/loss for the financial year	350,283.31	171,202.60
Total shareholders' equity	2,353,256.00	2,002,972.69
Liabilities		
Non-current liabilities	17,409,881.33	17,729,096.63
-	19,763,137.33	19,732,069.32

CASH FLOW STATEMENT

	2015	2014
EUR		
Cash flow from operating activities		
Cash flow from sales	36,650,292.19	28,957,064.76
Operating expenses	-33,037,362.60	-31,612,064.85
Cash flow from operating activities before financial items and taxes	3,612,929.59	-2,655,000.09
Interest and other financial expenses incurred from operating activities	71,756.56	-8,095.07
Interest received from operating activities	14.96	11,113.95
Direct taxes paid	-88,698.38	-44,731.21
Cash flow from operating activities	3,596,002.73	-2 696,712.42
Cash flow from investments		
Investments in tangible and intangible assets	-92,629.85	-414,500.92
Cash flow from investments	-92,629.85	-414,500.92
Change in liquid assets	3,503,372.88	-3,111,213.34
Liquid assets at beginning of year	5,049,037.55	8,160,250.89
Liquid assets at year-end	8,552,410.43	5,049,037.55

NOTES TO THE FINANCIAL STATEMENTS, 31 DEC 2015

ACCOUNTING POLICIES

Non-current assets and planned depreciation

Fixed assets have been capitalised at the direct acquisition cost. Planned depreciation has been calculated on the basis of the economic life of the fixed asset items. Planned depreciation has been presented in the Financial Statements of 31 December 2015 as follows. Machinery and equipment: 25 per cent of the expenditure residue from the date of acquisition (inclusive). Other long-term expenses are depreciated on a straight-line basis over a period of ten years.

Pensions

Pension cover is provided by an insurance company. The Managing Director's pension benefits are no different to those enjoyed by other personnel.

Financial assets

Financial assets are valued at their acquisition cost or market value, whichever is lower.

Notes to the Cash Flow Statement

EUR		
Net sales	2015	2014
Net sales in Finland	35,675,122.76	32,688,759.76
Other operating income	2015	2014
Research grants from the EU,		
TEKES and Academy of Finland	2,555,494.76	3,882,685.96
Notes on Personnel	2015	2014
Number of people employed during the financial year		
Number of employees at 31 Dec	285	266
Average number of employees	281	261
Personnel expenses	2015	2014
Wages and salaries	15,535,420.10	14,286,733.68
Pensions expenses	2,869,171.81	2,445,615.19
Other statutory personnel expenses	843,747.87	821,945.53
Total	19,248,339.78	17,554,294.40
Management salaries and remuneration	2015	2014
Board of Directors and Managing Director	269,048.91	266,177.49
Auditor's fees	2015	2014
Audits	6,748.00	4,025.34
Other statements	6,581.15	7,615.00
	13,329.15	11,640.34
Other operating expenses	2015	2014
IT expenses, equipment and software maintenance	7,488,480.79	8,693,861.75
Other expenses	10,414,582.81	9,426,745.18
	17,903,063.60	18,120,606.93
Financial income and expenses	2015	2014
Other interest and financial income from others	83,335.35	11,113.95
Interest and financial expenses to others	-11,563.83	-8,095.07
Total interest and financial expenses	71,771.52	3,018.88
Tax itemisation	2015	2014
Income tax on operations	-88,698.38	-44,731.21
Change in deferred tax assets	0,00	0.00
Total	-88,698.38	-44,731.21
Notes to the Balance Sheet

Non-current assets	Intangible assets	Tangible assets	
		Machinery and	
	Intangible rights	equipment	Total
Acquisition cost, 1 Jan	84,210.57	7,920,170.38	8,004,380.95
Increases	11,910.00	80,719.85	92,629.85
Acquisition cost, 31 Dec	96,120.57	8,000,890.23	8,097,010.80
Accumulated depreciation, 1 Jan	79,804.13	2,585,864.81	2,665,668.94
Depreciation for the financial year	3,802.76	708,201.21	712,003.97
Accumulated depreciation, 31 Dec	83,606.89	3,294,066.02	3,377,672.91
Book value, 31 Dec	4,406.44	5,334,305.57	5,338,712.01
Book value, 31 Dec	12,513.68	4,706,824.21	4,719,337.89
Holdings in other companies		2015	2014
Shareholdings			
Otaverkko Oy	EU	holding, % / no.	holding, % / no.
Acquisition cost, 1 Jan	2,522.82	5.3 / 75	5.3 / 75
Acquisition cost, 31 Dec	2,522.82	5.3 / 75	5.3 / 75
Book value, 31 Dec	2,522.82	5.3 / 75	5.3 / 75
Digile Oy/ ICT SHOK		holding, % / no.	holding, % / no.
Acquisition cost, 1 Jan	10,000.00	0.9 / 100	0.9 / 100
Acquisition cost, 31 Dec	10,000.00	0.9 / 100	0.9 / 100
Book value, 31 Dec	10,000.00	0.9 / 100	0.9 / 100
SalWe Oy/ T&H SHOK		holding, % / no.	holding, % / no.
Acquisition cost, 1 Jan	10,000.00	0.9 / 100	0.9 / 100
Acquisition cost, 31 Dec	10,000.00	0.9 / 100	0.9 / 100
Book value, 31 Dec	10,000.00	0.9 / 100	0.9 / 100
	10,000.00	0.5 / 100	0.57 100
NORDUnet A/S		holding, % / no.	holding, % / no.
Acquisition cost, 1 Jan	233,000.00	17.9 / 2000	17.9 / 2000
Acquisition cost, 31 Dec	233,000.00	17.9 / 2000	17.9 / 2000
Book value, 31 Dec	233,000.00	17.9 / 2000	17,9 / 2000

Financial securities

Financial securities		
Danske Invest Neutral K and Yhteisökorko K		
Book value	988,941.05	
Market price	1,090,386.57	
Difference	101,445.52	
Current receivables	2015	2014
Accounts receivable	2,680,527.94	3,577,704.96
Prepayments and accrued income	3,555,338.25	5,511,091.98
Total	6,235,866.19	9,088,796.94
Shareholders' equity	2015	2014
Share capital, 1 Jan	1,000,000.00	1,000,000.00
Share capital, 31 Dec	1,000,000.00	1,000,000.00
Unrestricted invested shareholders' equity, 1 Jan	200,000.00	200,000.00
Unrestricted invested shareholders' equity, 31 Jan	200,000.00	200,000.00
Retained earnings, 1 Jan	802,972.69	631,770.09
Transfer to share capital		,
Retained earnings, 31 Dec	802,972.69	631,770.09
Profit/loss for the financial year	350,283.31	171,202.60
Total shareholders' equity	2,353,256.00	2,002,972.69
Distributable funds, 31 Dec	2015	2014
Retained earnings	802,972.69	631,770.09
Profit for the financial year	350,283.31	171,202.60
Unrestricted invested shareholders' equity	200,000.00	200,000.00
Total	1,353,256.00	1,002,972.69
Breakdown of share capital by type of share	2015	2014
Shareholders have 1 vote per share	10,000 shares	10,000 shares
Current liabilities	2015	2014
Advance payments received	11,421,575.40	11,761,883.22
Accounts payable	915,426.61	1,057,990.08
Other short-term debts	868,584.27	415,745.38
Accruals and deferred income	4,204,295.05	4,493,477.95
	17,409,881.33	17,729,096.63

Liabilities

Leasing liabilities		
To be paid during the following financial year	917,908.32	1,039,034.33
To be paid during the coming financial year	1,569,645.07	1,583,343.03
Rent liabilities		
To be paid during the following financial year	2,746,063.92	2,703,012.60
To be paid during the coming financial year	11,389,799.13	13,805,133.30

Key indicators	2015	2014	2013	2012
- Operating profit, %	1.03	0.65	0.66	0.24
- Return on equity	16.08%	8.93%	6.25%	5.28%
- Return on capital invested	20.69%	11.68%	10.35%	6.34%
- Quick ratio	2.5	2.4	2.8	2.8
- Equity ratio	28.21%	25.13%	26.42%	28.15%

CSC - IT Center For Science

Financial Statements and Report of the Board of Directors, Signatures

Espoo, day of March 2016

Minami Laitinen

Anu Harkki

Pentti Heikkinen

Kaija Pöy

Turo Kilpeläinen

Mari Walls

Heikki Mannila

Kimmo Koski Managing Director

Auditor's Report An auditor's report was issued today. Espoo, day of March 2016

PricewaterhouseCoopers Oy Authorised Public Accountants

Leena Puumala Authorised Public Accountant

List of accounting books for the financial year 1 Jan 2015–31 Dec 2015

Cash book Journal General ledger Lists of accounts receivable Lists of accounts payable Sales invoices Purchase invoices Purchase invoices Memoranda Payroll summaries Payroll receipts Payment receipts VAT receipts

AUDITOR'S REPORT

TO THE ANNUAL GENERAL MEETING OF CSC - IT CENTER FOR SCIENCE

We have audited the accounting records, financial statements, report of the Board of Directors, and the administration of CSC – IT Center for Science for the financial year 1 January 2015–31 December 2015. The financial statements comprise the balance sheet, income statement, cash flow statement, and notes to the financial statements.

RESPONSIBILITY OF THE BOARD OF DIRECTORS AND THE MANAGING DIRECTOR

The Board of Directors and the Managing Director are responsible for the preparation of the financial statements and the report of the Board of Directors, and for ensuring that they present a true and fair view in accordance with the laws and regulations governing the preparation of financial statements and reports of the Board of Directors in Finland. The Board of Directors is responsible for the appropriate arrangement of the company's accounts and financial management. The Managing Director ensures that the company's accounts are in compliance with the law and that its financial affairs have been arranged in a reliable manner.

AUDITOR'S RESPONSIBILITY

Our responsibility is to express an opinion on the financial statements and the report of the Board of Directors based on our audit. The Auditing Act requires that we comply with the requirements of professional ethics. We conducted our audit in accordance with good auditing practice in Finland. Good auditing practice requires that we plan and perform the audit to obtain reasonable assurance of whether the financial statements and the report of the Board of Directors are free from material misstatement, and whether the members of the Board of Directors or the Managing Director are guilty of an act of negligence that may result in the company being liable for damages or whether they have violated the Limited Liability Companies Act or the company's Articles of Association.

An audit involves procedures to obtain accounting evidence on the figures included in the financial statements and the report of Board of Directors and the other information presented in them. The procedures selected are left to the discretion of the auditor, and include an assessment of the risks of material misstatement, whether due to fraud or error. When assessing these risks, the auditor takes internal control into account, as it plays a significant role within the company in ensuring that the financial statements and the report of the Board of Directors provide a true and fair view. The auditor assesses internal control in order to plan appropriate auditing procedures, but not for the purpose of presenting an opinion on the effectiveness of the company's internal control. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of the accounting estimates made by management, as well as evaluating the overall presentation of the financial statements and the report of the Board of Directors.

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

OPINION

In our opinion, the financial statements and the report of the Board of Directors give a true and fair view of the company's financial position and performance in accordance with the laws and regulations governing the preparation of financial statements and reports of the Board of Directors in Finland. The information in the report of the Board of Directors is consistent with the information in the financial statements.

Helsinki, 9 March 2016 PricewaterhouseCoopers Oy Authorised Public Accountants

Leena Puumala Authorised Public Accountant

CSC'S MANAGEMENT GROUP – PERSONAL INFORMATION WITH RESPONSIBILITIES AND OUTSIDE INTERESTS

CSC'S MANAGEMENT GROUP

Managing Director **KIMMO KOSKI** (b. 1964)

D.Sc. (Tech.)

Employment history summary:

- CSC, Managing Director, 2004-
- Nokia Technology Platform Engineering Environment, Strategy and Roadmaps Manager, 2004
- Nokia Research Center, IT Manager, 2000–2003
- CERN, Switzerland, Scientific Associate, 1996–1997
- CSC, positions as Manager and Specialist, 1989–2000

Board member since:

• Secretary of the CSC Board of Directors 2004

Summary of concurrent confidential posts:

- European Data Infrastructure (EUDAT), Coordinator
- Open Science and Research Initiative (ATT), Strategy Group, Member

Director, Information Management Services

JANNE KANNER (b. 1973)

M.Sc.

Employment history summary:

- CSC, Director, 2007-
- CSC, Technology Director, 2004–2007
- CSC, Development Manager, 2002–2004
- CSC, Specialist, 1999-2002
- University of Jyväskylä, 1998–1999
- Vapo Oy (part-time), 1992-1998

Summary of concurrent confidential posts:

- NORDUnet A/S Board member, 2004-
- Chairman of the Board, 2008–2010
- Vice-chairman of the Board, 2010-2012
- Otaverkko Oy, Board member, 2009–2015
- TIVIT Oy, Board member, 2010–2013
- TERENA, President, 2009-2011

Vice Managing Director

TIINA KUPILA-RANTALA (b. 1963)

Ph.D., Master of Business Administration

Employment history summary:

- CSC, Vice Managing Director, 07/2011-
- CSC, Director, Business and Operational Development, 2010-06/2011
- CSC, Development Manager, 2002–2010
- Nokia Networks, Project Manager, 2001
- CSC, Systems Specialist, 1996-2001
- University of Helsinki, Department of Physics, Assistant, Scholarship Researcher (Jenny and Antti Wihuri Foundation, Magnus Ehrnrooth Foundation), 1992–1996
- Nokia Telecommunications, System Analyst, 1990–1991

Director, Marketing and Communications

MINNA LAPPALAINEN (b. 1967)

M.Sc. (Econ.)

Employment history summary:

- CSC, Director, Marketing and Communications, 06/2014–
- Taaleritehdas Oyj, Marketing Manager, 2012–2014
- Vattenfall Sähkönmyynti Oy (B2C Sales Nordic), Manager, Sales and Customer Relationships 2010–2012
- Digi TV Plus Oy, Marketing Manager 2007–2010
- A-lehdet Oy, Marketing Manager, 2005–2006
- Sanoma Magazines Finland Oy, Product Manager 1999–2005
- TietoEnator Oyj, positions as Manager and Specialist, 1995–1999

Director, Services for Research

PEKKA LEHTOVUORI (b. 1973)

Ph.D.

Employment history summary:

- CSC, Director, Services for Research, 2013-
- CSC, positions as Manager and Specialist, 2001–2013
- FBD Ltd. Senior Scientist, 2002-2005
- University of Jyväskylä, Researcher, 1997–2001

Summary of concurrent confidential posts:

- NeIC (Nordic e-Infrastructure Collaboration), Board of Directors chairman 2015-
- Scientific Computing Collaboration Forum, Specialist
- NeIC (Nordic e-Infrastructure Collaboration), Board Member
- European Grid Initiative (EGI) Council, vice representative for Finland
- ELIXIR Finland, Deputy Head of Node

Director, Customer and Service Integration

KLAUS LINDBERG (b. 1958)

M.Sc. (Tech.)

Employment history summary:

- CSC, Director, Customer and Service Integration, 2013-
- CSC, Director, Information Management Services, 2002–2013
- CSC, positions as Manager and Specialist, 1989–2002
- Helsinki University of Technology, Research Assistant, 1984–1989

- JullCTLab steering group, Specialist Member nominated by Ministry of Finance
- OpIT working group nominated by the Ministry of Education, Member

Director, Interoperability Services for Education and Research

ANTTI MÄKI (b. 1978)

Master of Social Sciences

Employment history summary:

- CSC, Director, Interoperability Services for Education and Research, 2015–
- CSC, Development Manager, 2013–2014
- CSC, Project Manager, 2012–2013
- CSC, Specialist, 2010–2011
- University of Helsinki, IT-services, Project Manager, 2009–2010
- University of Helsinki, IT Department, Specialist, 2007–2009
- University of Helsinki, Faculty of Social Sciences, Project Secretary, 2002–2006

Summary of concurrent confidential posts:

- Joint admission system for Higher Education, Steering Group Member, 2014-
- Project group leader for the development of Information System for Steering Finnish Vocational Education, 2014–
- Steering group for the National data warehouse for Higher Education and Data harvesting by the Ministry of Education and Culture, Secretary, 2014–2015
- SADe project, Services for Learner, Cluster Group Member, 2014–2015

Financial Director

KIMMO NIITTUAHO (b. 1966)

M.Sc. (Econ.)

Employment history summary:

- CSC, Financial Director, 2011-
- CSC, Financial Manager, 2003–2011
- Pirelli Oy, Controller, 2001–2003
- LM Ericsson Oy, Business Controller, 2000–2001
- AKB Services, Controller, 1995–2000

Summary of concurrent confidential posts:

• Toppi Oy, Board member, 2013-

HR Director JARI RAJALA (b. 1971)

M.A. (Education)

Employment history summary:

- CSC, HR Director, 2011–
- CSC, HR Manager, 2007-2011
- CSC, Administrative Director, 2004–2007
- CSC, positions as Manager and Specialist, 1997-2004

Application Specialist, Personnel Representative in Administration ATTE SILLANPÄÄ (b. 1972)

Ph.D.

Employment history summary:

- CSC, Application Specialist, 2005-
- University of Naples Federico II, Italy, Researcher, 2004–2005
- University of Oulu, Researcher, 1997-2004

Summary of concurrent confidential posts:

• CSC, Personnel representative in administration, 2010-

Director, ICT Platforms

TERO TUONONEN (b. 1971)

M.Sc. (Computer Science)

Employment history summary:

- CSC, Director, ICT Platforms, 2010-
- CSC, Manager, Information Management, 2009–2010
- CSC, Development Manager, 2006–2008
- Nokia Technology Platforms, IT Manager/Solutions Manager, 2005–2006
- Nokia Research Center, IT Manager, 2001–2005
- Nokia Research Center, IT Specialist, 1996–2001

Director of partnerships

PEKKA UUSITALO (b. 1964)

M.Sc. Engineering (Telecommunications)

Employment history summary:

- CSC, Director (of partnerships) 2015-
- Juniper Networks, Strategic Alliance Manager, 2008–2015
- Cisco Systems, Account Manager and Regional sales Director, Service provider sales, 1996–2007
- Hewlett-Packard, Product Marketing Manager, 1989–1996

Summary of concurrent confidential posts:

• Member of country management team at Cisco Systems Finland during 2000-2007

Director, Research Infrastructures

PER ÖSTER (b. 1959)

Ph.D.

Employment history summary:

- CSC, Director, Research Infrastructures, 2013-
- CSC, Director, Research Environments, 2010–2013
- CSC, Director, Application Services, 2007-2010
- KTH Royal Institute of Technology, Stockholm, Sweden, Parallelldatorcentrum (PDC), Associate Director, 2001–2007
- KTH Royal Institute of Technology, Stockholm, Sweden, Parallelldatorcentrum (PDC), Associate Director, Research and Customer Relations, 1996–2001
- KTH Royal Institute of Technology, Stockholm, Sweden, Parallelldatorcentrum (PDC), Project Manager, Industrial Applications, 1994–1996
- Volvo Data AB, Gothenburg, Sweden, Consultant, Applied Mathematics, 1992–1994
- Volvo Data AB, Gothenburg, Sweden, System Analyst and Product Manager, Technical Computing, 1990–1992
- Chalmers University of Technology and University of Gothenburg, PhD grant and PhD research position, 1984–1990

- EUDAT 2020 Executive Board, chair 2015-
- EGI.eu Foundation, Executive Board Member, 2013-2015
- EGI.eu Foundation Executive Board, Chairman, 2010–2012
- European Grid Initiative (EGI) Council, Chairman, 2009–2012
- Finnish Graduate School in Computational Sciences (FICS), Strategic Committee Member, 2010–2014

BOARD OF DIRECTORS

MIRJAMI LAITINEN (b. 1948)

Master of Administrative Sciences, University of Tampere

Employment history summary:

- Sitra, senior adviser, 2013–2015
- Finnish Tax Administration, general director 2007–2012
- Finnish Tax Administration, chief director 1997–2007. Worked also previously in different management positions and as the senior inspector.
- The writer of the series of Business guidance books concerning the withholding taxes, published by WSOY, 1984–2007

Board member since: 2015

Summary of concurrent confidential posts:

- Prime minister office, mentor in civil servant training program 1.9.2015-17.5.2016
- Advisory Board in Finnish Customs, chairman 1.4.2015-31.3.2017
- In the years 2013–2015 as a member of the follow-up group of the Finnish ICT improvement, established by the Finnish government
- Member in the follow-up group of the following up the government digitalisation program (Digitalisation 2020)

Director Business Solutions, Natural Resources Institute Finland (NRIF)

ANU HARKKI (b. 1951)

Doctor of philosophy, docent, MBA

Employment history summary:

- NRIF, Director Business Solutions, 2015-
- MTT, Research Director, 2010–2014
- Sitra, Program Director 2005-2009
- LSM, Managing Director 2002-2005
- Noviant Ltd, Research Director 1999–2001
- Cultor Food Science (New York), VP Prod. tech. dev. and VP Strat. Marketing 1996–1999
- Cultor Oyj several positions 1990–1996
- VTT, research scientist, 1986-1989

Board member since: 2014

- Muuvit health and learning gmbh, chairman of the board, 2011–2015
- Finnish Organic Research Institute, chairman of the board, 2013-
- Evira, member of the science council, 2012-

CEO, Gateway Technolabs Finland Oy

PENTTI HEIKKINEN (b. 1960)

M.Sc. (Econ.), University of Jyväskylä

Stanford Executive Program diploma, Stanford Graduate School of Business

Employment history summary:

- Gateway Technolabs Finland Oy, CEO, 2008-
- TietoEnator Corp., President and CEO, 2006–2007
- TietoEnator Corp., Chief Operating Officer, 2004–2005
- TietoEnator Corp., Telecom & Media Division, President, 2001–2003
- TietoEnator Corp., Services Division, President, 1999–2000
- Tieto Corp., Public Administration Division, President, 1996–1998
- VTKK Government Systems Ltd, Managing Director, 1994–1995
- CapGemini Finland, Director, 1991–1993
- VTKK Group, Director, 1987–1990
- VTKK, Management Consultant, 1985–1986

Board member since: 2012

Summary of concurrent confidential posts:

- Basware Oyj, Member of the Board, 2009–2015
- Tecnotree Oyj, Member of the Board, 2009-

Senior Partner

KAIJA PÖYSTI (b. 1959)

Master of Science (Tech)

Employment history summary:

- Serial entrepreneur, over 30 years of experience as an entrepreneur
- Consultant
- Angel investor

Board member since: 2015

Summary of concurrent confidential posts:

- VTT Ventures investment committee, Member
- Schilds&Söderströms, Member of the Board
- Flockler Oy, Member of the Board

President of the Academy of Finland

HEIKKI MANNILA (b. 1960)

Ph.D. in computer science

Employment history summary:

• Academy of Finland, president 2012-

- Aalto University, vice president of academic affairs, 2009–2012
- Aalto University, an academy professor 2004–2008
- University of Helsinki and Helsinki University of Technology, professor
- Worked as a researcher of industry in US, as a visiting professor in Technical University of Vienna and visiting researcher at the Max Planch Institute for computer science in Saarbrücken

Board member since: 2015

Rector, Kajaani University of Applied Sciences

TURO KILPELÄINEN (b. 1980)

Ph.D. (econ.)

Employment history summary:

- Kajaani University of Applied Sciences, rector, 2010-
- Kajaani University of Applied Sciences, principal lecturer, 2008–2009
- Accenture, consultant, 2007-2008
- University of Jyväskylä, researcher, planner 2003–2006

Board member since: 2014

Summary of concurrent confidential posts:

- Rectors' Conference of Finnish Universities of Applied Sciences ARENE, member of board, 2012-2014
- Several confidential posts related to the development of the higher education sector

President and CEO, Professor, Natural Resources Institute Finland (NRIF)

ANNA-MARI WALLS (b. 1961)

Ph.D., Docent

Employment history summary:

- President and CEO, Natural Resources Institute Finland, 2015-
- Finnish Environment Institute, Marine Research Centre, Director, Professor, 2009–2014
- MTT Agrifood Research, Research Director, 2008–2009
- MTT Agrifood Research, Environmental Research, Programme Director, 2006–2007
- University of Turku, Professor (acting), 2004–2005
- University of Turku and Academy of Finland, FIBRE Programme Director, 1997–2003
- Maj and Tor Nessling Foundation, head of Research, 1995–1997

Board member since: 2010

- University of Oulu, Member of the Board 2016-2019
- Finnish Meteorological Institute, Chairman of the Board, 2015-
- University of Eastern Finland (UEF), Member of the Board, 2015-
- Research Council for Biosciences and Environment at the Academy of Finland, Member, 2010–2015
- Finnish Forest Research Institute (Metla) Board member, 2012–2015
- Finnish Game and Fisheries Research Institute (RKTL), Board member, 2012–2015
- WWF Finland, Board member, 2010–2014

Professor, Director of Helsinki Institute for Information Technology (HIIT) SAMUEL KASKI (b. 1968)

D.Sc. (Tech.) (Chair since 2012)

Employment history summary:

- TKK/Aalto University, Professor, 2005–
- University of Helsinki, Professor, 2004–2005
- Academy Research Fellow, 2001–2004

Board member since: 2012 (-4/2015)

Summary of concurrent confidential posts:

• Finnish Centre of Excellence in Computational Inference Research, Director

- Biocentrum Helsinki, Board member
- Institute for Molecular Medicine Finland FIMM, vice member of Board

Counsellor of Education, Ministry of Education and Culture

ERJA HEIKKINEN (b. 1964)

Ph.D., Docent

Employment history summary:

- Ministry of Education and Culture, Counsellor of Education, 2005-
- Tekes, Technology Specialist, 2001–2005
- University of Helsinki, Adjunct Professor, 2001-
- CSC Scientific Computing Ltd, Biosciences Specialist, 1997–2001
- Academy of Finland Junior Researcher at the University of Tübingen (Germany) and University of California, Davis (USA), 1992–1995
- Biocenter Oulu, Coordinator, 1995–1997
- Board member since: 2008 (-4/2015)

Director General, National Archivist, National Archives Service of Finland

JUSSI NUORTEVA (b. 1954)

Dr.Theol., Phil.Lic., Docent

Employment history summary:

- Director General, National Archives Service of Finland, 2003-
- University of Helsinki, Docent, 1998-
- Finnish Literature Society, Secretary General, 2000–2003

Academy of Finland, Secretary General of the Research Council for Culture and Society, 1998–2000
Board member since: 2007 (Deputy Member), 2008 (Member) (–4/2015)

Summary of concurrent confidential posts:

- The Chancery of the Orders of the White Rose of Finland and of the Lion of Finland, Vice Chancellor
- National Board of Heraldry, chair

• Finnish National Commission for UNESCO, Vice Chair

- Academy of Finland, Finnish Research Infrastructures Committee, member
- University of Helsinki, Scientific Advisory Board at the Centre for European Studies, Chair
- Riksbankens Jubileumsfond (Sweden), Research Infrastructures Advisory Group, member

Appendix 1

Stakeholder analysis

Stakeholders and their expectations of CSC	How we analyse stakeholder expecta- tions and measure our performance	How we meet their expectations	Examples of dialogue and action in 2015
Customers			
A reliable and secure provider Good customer rela- tions and professional service Cost-effective services and customer support Communications that customers can under- stand Supporting open science through the Ministry of Education and Culture's Open Science and Research Initiative (ATT project)	Customer satisfaction surveys Customer feedback Quality conferences	Personal meetings Customer events, training Technical support Responding to cus- tomer queries Regular quality conferences Networking events Customer extranets and www.csc.fi Targeted customer communications	We took an even more cus- tomer-oriented approach by developing an operating model for customer relation- ship management. This model had defined roles and respon- sibilities, and consistent prac- tices for enhancing customer relationships. Through system- atic customer relationship management, we seek to im- prove both our customer ex- perience and our understand- ing of our customers' require- ments, so that we can develop the right services and solutions to meet their needs. We kept in contact with our customers at a variety of dif- ferent meetings, events, trade fairs, seminars, and training sessions. We arranged numer- ous visits to institutions of higher education all across Finland. We arranged 90 customer training events (125 training days) for a total of 2,781 partic- ipants. We developed new digital channels for customer com- munications: an online maga- zine, blogs, newsletters, and webinars. We actively use social media: Twitter, LinkedIn, Facebook, SlideShare, YouTube.

Personnel			
Open and trustworthy	Well-being surveys	Daily discussion	Management held ten
dialogue		Dogular brief	briefings aimed at all person-
Timely communica-	Competence analyses	Regular briefings from management	nel (approx. once per month) and three for supervisors.
tions	Initiatives	once a month	
			On the basis of the personnel
Equal treatment		Managers' Days twice a year	well-being survey, we launc- hed a project to enhance in-
A motivating			ternal communications and
remuneration system		Personal develop-	boost community spirit. The
Ensuring well-being at		ment discussions twice a year	project's goals included im- proving information flow and
work			increasing the currency, dis-
		Competence development	coverability and usability of in- formation. As a result, we de-
		development	cided to introduce a new so-
		Intranet and other	cial intranet (INTO), and sever-
		internal communi- cations channels	al hundred CSC employees were involved in its develop-
			ment.
		Orientation	M/s durance in the first
			We drew up guidelines for social media, rules for using
			Yammer, and recommended
			channels for internal commu-
			nications to ensure proper eti- quette and best practices.
			In order to mobilise our even more customer-oriented ap-
			proach, we also organised an
			extensive coaching program-
			me in customer relationships for our personnel.
Shareholder			
Carrying out our	Proactively keeping in	Regular meetings	CSC's Board of Directors as-
special mandate	contact	between company	sessed the company's finan- cial and operational success.
a a atta atta ati valu a a a ta			
cost-effectively and to a high standard		management and the Ministry of Edu-	ciarana operational success.
cost-effectively and to a high standard		the Ministry of Edu- cation and Culture,	We reported on our results in
a high standard Healthy finances and		the Ministry of Edu- cation and Culture, which is responsible	We reported on our results in accordance with the agreed
a high standard		the Ministry of Edu- cation and Culture,	We reported on our results in
a high standard Healthy finances and		the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory
a high standard Healthy finances and		the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring Financial State-	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory work for the Ministry of Edu-
a high standard Healthy finances and		the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory
a high standard Healthy finances and		the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring Financial State- ments, Corporate Social Responsibility Report, and Annual	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory work for the Ministry of Edu- cation and Culture's owner-
a high standard Healthy finances and		the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring Financial State- ments, Corporate Social Responsibility	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory work for the Ministry of Edu- cation and Culture's owner-
a high standard Healthy finances and		the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring Financial State- ments, Corporate Social Responsibility Report, and Annual Report Annual General	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory work for the Ministry of Edu- cation and Culture's owner-
a high standard Healthy finances and social impact		the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring Financial State- ments, Corporate Social Responsibility Report, and Annual Report	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory work for the Ministry of Edu- cation and Culture's owner-
a high standard Healthy finances and social impact Suppliers (Partners)	Feedback from	the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring Financial State- ments, Corporate Social Responsibility Report, and Annual Report Annual General Meeting	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory work for the Ministry of Edu- cation and Culture's owner- ship strategy.
a high standard Healthy finances and social impact	Feedback from suppliers	the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring Financial State- ments, Corporate Social Responsibility Report, and Annual Report Annual General Meeting Regular meetings and quality con-	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory work for the Ministry of Edu- cation and Culture's owner-
a high standard Healthy finances and social impact Suppliers (Partners) Long-term, open partnerships	suppliers	the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring Financial State- ments, Corporate Social Responsibility Report, and Annual Report Annual General Meeting Regular meetings and quality con- ferences/ develop-	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory work for the Ministry of Edu- cation and Culture's owner- ship strategy. We complied with legislation on public procurement.
a high standard Healthy finances and social impact Suppliers (Partners) Long-term, open partnerships Corporate	suppliers Price and other	the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring Financial State- ments, Corporate Social Responsibility Report, and Annual Report Annual General Meeting Regular meetings and quality con-	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory work for the Ministry of Edu- cation and Culture's owner- ship strategy. We complied with legislation on public procurement. We are a reliable partner in
a high standard Healthy finances and social impact Suppliers (Partners) Long-term, open partnerships Corporate responsibility	suppliers	the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring Financial State- ments, Corporate Social Responsibility Report, and Annual Report Annual General Meeting Regular meetings and quality con- ferences/ develop- ment meetings Long-term	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory work for the Ministry of Edu- cation and Culture's owner- ship strategy. We complied with legislation on public procurement. We are a reliable partner in projects funded by the EU, Academy of Finland, Tekes,
a high standard Healthy finances and social impact Suppliers (Partners) Long-term, open partnerships Corporate responsibility Equal treatment in	suppliers Price and other	the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring Financial State- ments, Corporate Social Responsibility Report, and Annual Report Annual General Meeting Regular meetings and quality con- ferences/ develop- ment meetings	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory work for the Ministry of Edu- cation and Culture's owner- ship strategy. We complied with legislation on public procurement. We are a reliable partner in projects funded by the EU,
a high standard Healthy finances and social impact Suppliers (Partners) Long-term, open partnerships Corporate responsibility	suppliers Price and other	the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring Financial State- ments, Corporate Social Responsibility Report, and Annual Report Annual General Meeting Regular meetings and quality con- ferences/ develop- ment meetings Long-term	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory work for the Ministry of Edu- cation and Culture's owner- ship strategy. We complied with legislation on public procurement. We are a reliable partner in projects funded by the EU, Academy of Finland, Tekes,
a high standard Healthy finances and social impact Suppliers (Partners) Long-term, open partnerships Corporate responsibility Equal treatment in	suppliers Price and other	the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring Financial State- ments, Corporate Social Responsibility Report, and Annual Report Annual General Meeting Regular meetings and quality con- ferences/ develop- ment meetings Long-term agreements Participation in industry activities	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory work for the Ministry of Edu- cation and Culture's owner- ship strategy. We complied with legislation on public procurement. We are a reliable partner in projects funded by the EU, Academy of Finland, Tekes,
a high standard Healthy finances and social impact Suppliers (Partners) Long-term, open partnerships Corporate responsibility Equal treatment in	suppliers Price and other	the Ministry of Edu- cation and Culture, which is responsible for ownership stee- ring Financial State- ments, Corporate Social Responsibility Report, and Annual Report Annual General Meeting Regular meetings and quality con- ferences/ develop- ment meetings Long-term agreements Participation in	We reported on our results in accordance with the agreed annual schedule. We participated in preparatory work for the Ministry of Edu- cation and Culture's owner- ship strategy. We complied with legislation on public procurement. We are a reliable partner in projects funded by the EU, Academy of Finland, Tekes,

Research infrastructure	e financiers		
Responsible cost monitoring and result reporting	Success measured by the number of projects and their monetary value	Keeping in regular contact Reporting as agreed High-quality applications CSC's website	CSC submitted grant applica- tions to the Academy of Finland (FIRI) and the EU (Horizon 2020). CSC was one of the major Finnish compa- nies that received funding from the Horizon 2020 framework programme in 2015 (EUR 6.7 million).
Authorities, association	ns, local communities and	l other organisations	
Complying with legis- lation and regulations Paying taxes Maintaining good co- operation Providing information to facilitate decision- making Open dialogue and cooperation Datacenter security and considering envi- ronmental perspec- tives A good employer	Active involvement in community dialogue and the activities of various organisations Open dialogue with authorities and decision-makers Diverse cooperation on development	Regular meetings and other close contact, such as through working groups and events CSC's website Annual Report and Corporate Social Responsibility Report Statements Bulletins Cooperation with local authorities Participating in as- sociations' activities Interviews, answer- ing queries Open days	CSC exerts wide influence on political decision-makers and officials. We provided expert opinions by, for example, is- suing statements on projects and proposed developments relating to science and re- search. CSC set targets relating to the Government Programme: to promote Finland's competi- tiveness and ensure the success of Finnish science. We issued open and proactive communications about our operations in, for example, Kajaani, and cooperated with representatives from local as- sociations. We organised several visits to the Kajaani Datacenter and Espoo office. We actively participated in recruitment fairs all across Finland. We offered placements to a large number of trainees and those working on dissertation: and theses.
Media			
Open and timely communications Reaching the right audience Providing expert opinions	Systematic media tracking Active contact with media representatives	Bulletins Proactively considering the interests of the media: interviews, answering queries, media conferences, briefings CSC's website Social media channels: Twitter, Facebook, LinkedIn	We actively reported on topical issues relating to CSC through, for example, our website and social media channels.

General public			
Social responsibility	Following public debate	CSC's website	We aim for openness, a good presence, and intelligibility.
		Social media	
			CSC was involved in arranging
			a Science Days event aimed at school children in Kajaani on
			10–11 November. During the
			two-day event, over 600
			students aged 14–17 attended
			lectures and workshops on
			science and technology,
			including study and employ-
			ment opportunities.

Appendix 2

Materiality Analysis 2015



Financial responsibility

- 2. Financial targets and their achievement
- 4. Financial support from the State (Lottery funding)
- 8. Cash flow

Personnel responsibility

- 11. Remuneration system and remuneration Number of personnel
- 12. Competence development and training
- 14. Equality: gender breakdown, equality plan
- 15. Personnel satisfaction
- 16. Occupational health

Environmental responsibility

- 7. Energy
- 9. Key environmental impacts of operations
- 17. Environmental management
- 19. Key environmental responsibility indicators

Social responsibility

- 5. Compliance with competition law
- 6. Compliance with legislation and regulations
- 18. Measures and practices to combat bribery

Service responsibility

- 1. Customer service and customer satisfaction
- 3. Protecting customer data and privacy
- 13. Sustainable development

Human righ

20. Human rights issues relating to operations

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10. Procurement principles and policies

Appendix 3

Statistics 2015

Students: 1,375,629	
Degrees: 10,87,384	
Achievements: 63,195,878	
Oldest single achievement: 1 Dec 1902	
Oldest date of birth: 22 Sep 1870	
Oldest degree: 27 May 1922 (M.A.)	



Availability of computing and application servers in 2015 (including maintenance and unexpected breaks)

NOTE: Clusters are considered to be available if the login node and part of the cluster is in use.



Usage level of computing and application servers in 2015 (compared to maximum capacity)

Usage of processor time by organisation in 2015



Computing usage by discipline 2015 (includes Sisu, Taito and cPouta usage)





Logins to Haka services 2011-2015

Number of visits to Scientist's User Interface (SUI) 2011–2015





Courses and events 2011–2015



Includes roaming outside user's home organisation.



Includes Sisu ja Taito usage.

CSC – IT Center for Science Ltd. is a non-profit, state-owned company administered by the Ministry of Education and Culture.



