



Sustainability report

2024



CSC – IT Center for Science Ltd.

Content

Managing Director's review	3
General information	5
Environmental information	20
Climate change	21
Biodiversity and ecosystems & Resource use and circular economy	26
Social information	27
Own workforce	28
Workers in the value chain	35
Consumers and end-users	36
Governance information	38
Business conduct	39
CSC's impact	43



Managing Director's review

As a company entrusted with special state assignment, CSC is uniquely placed to make a positive impact on society from the perspectives of environmental, economic and social responsibility alike. In 2024, we listened to our stakeholders, added detail to our material sustainability themes, and strengthened our sustainability programme. Our goal is to minimise our footprint and maximise our positive handprint in close cooperation with our customers and partners.

The European LUMI supercomputer proved its significance for both science and society. LUMI has been widely used in such areas as climate change research, digital twins development and research in new AI models. So far, its computing power has been tapped by more than 2,000 research projects. Towards the end of the year, a decision was made to place a new European supercomputer and the European Union's AI Factory in Finland, which reinforces Finland's position as a global pioneer in the field of research infrastructures and AI development.



Finland is additionally procuring a new national computing and data management environment, which will also be located in Kajaani. This new environment will consist of the new supercomputer Roihu, a data management system and cloud computing capacity. Investments in high-performance computing pay off. A study conducted by Taloustutkimus in early 2024 found that one euro invested in CSC's HPC services creates direct economic benefits of EUR 25–37 to society.

A CSC-led consortium was selected to supply EuroHPC Joint Undertaking's common Federation Platform for quantum and supercomputers. This cooperation will provide users with uniform access to EuroHPC computers located in different European countries, supporting both scientific and business-related research.

Demand for the processing and analysis of sensitive data has continued to grow, and we have developed our services to meet our customers' needs. The use of digital preservation services also grew in line with the targets.

The higher education institutions' digital transformation made headway through the Digivisio 2030 programme and our digital services. CSC was again selected as the service integrator of Digivisio. Our customers continue to be highly satisfied with CSC's digital services. A customer survey conducted in 2024 found that universities of applied sciences, universities and research institutes value especially CSC's expertise and smooth cooperation.

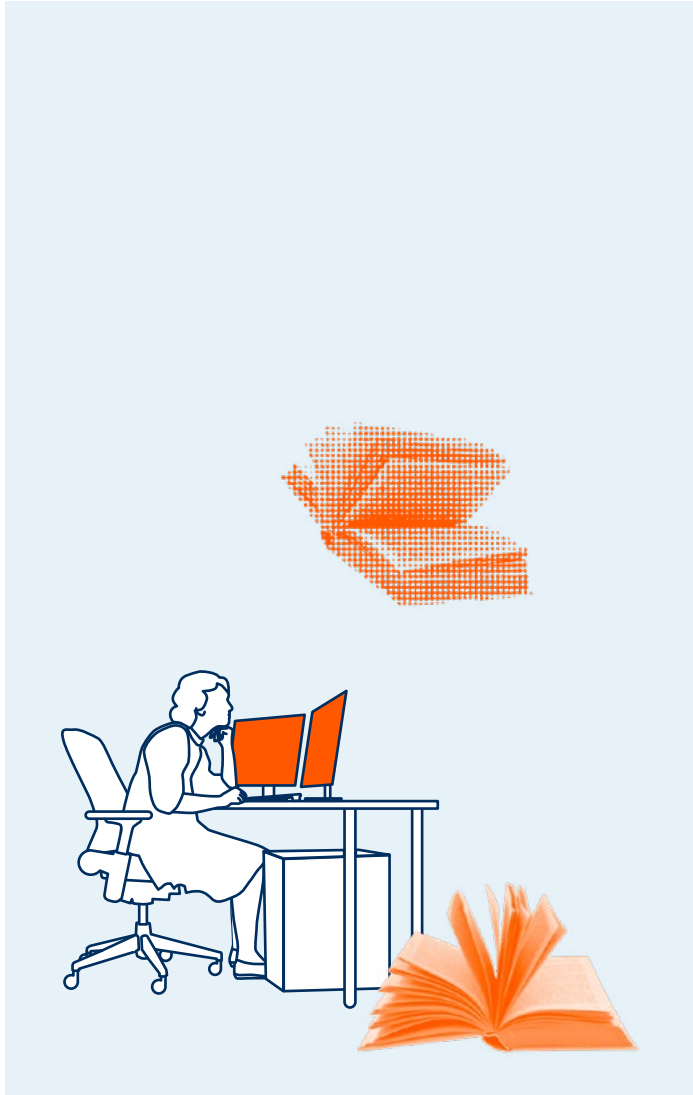
While the global security situation was challenging in 2024, CSC's operations remained stable. We develop information security and risk management in close cooperation with our customers and stakeholders. We are committed to ensuring the security of our services in a constantly changing operating environment.

Year 2024 was marked by growth in terms of both business and personnel. We continued to develop our premises to support hybrid work and the well-being of our personnel. The Keilaniemen Portti site under construction will be completed in 2026. It will meet the requirements of BREEAM and WELL certifications. This investment supports our long-term sustainability strategy.

CSC's success is founded on our skilled and thriving personnel. The results of our personnel survey were once again good in 2024.

Kimmo Koski

CEO



General information

Basis for preparation

General basis for preparation of sustainability statements

The content and structure of the Sustainability report for 2024 were aligned with the EU Corporate Sustainability Reporting Directive (CSRD) and the European Sustainability Reporting Standards (ESRS) associated with it. The directive will be applicable to CSC from 2025 onwards. The sustainability statement was prepared at CSC level, focusing on the company's business and sustainability. The reported themes and information are based on CSC's double materiality assessment, which was carried out in two phases in 2023–2024. For a description of the materiality assessment, see the section "Description of the process to identify and assess material impacts, risks and opportunities".

Some of the topics identified to be material have not been fully included in the Sustainability report for 2024, including in cases where data are not available. CSC will include these topics in its report for 2025, with the exception of the reporting requirements for which CSC uses the phase-in option.

The Sustainability report covers sustainability information relating to CSC's own operations and partly to the upstream and downstream value chain. For the upstream value chain, especially equipment suppliers have been identified as material actors, as well as workers in the value chain, particularly those working under a consultancy contract. In the downstream value chain, end-users of our services have been identified to be material.

Governance

The role of the administrative, management and supervisory bodies

Board

Members of the Board of Directors have extensive experience relevant to CSC's field and services. According to the Articles of Association, the Board of Directors consists of four to seven ordinary members.

Composition and gender diversity of the Board

	Male		Female		Total Number
	Number	%	Number	%	
Executive members	0	0%	0	0%	0
Non-executive members	4	57%	3	43%	7
Total members	4	57%	3	43%	7
Ratio of female and male members (women/men)					0.75:1

In 2024, the Ministry of Education and Culture appointed five members to the Board of Directors, while two members were appointed by the higher education institutions.

According to the Government Resolution on the State Ownership Policy, the State appoints to companies' boards members whose expertise creates added value for the companies and who are familiar with the objectives of the State. In this Government Resolution, competence in sustainability is one of the key selection criteria for board members.

In addition to public servants working for the ministries, the head of a research institute's business area and the director of a state-owned special assignment company, the members also include rectors and professors of higher education institutions who have a broad view of the higher education field, including computational and data-intensive fields.

CSC's Board of Directors is appointed for a term of one year, and it meets at least five times a year. In 2024, CSC's Board of Directors consisted of the following members:

- Jukka Mönkkönen, PhD, Rector of the University of Eastern Finland (CSC Board Member 2019–, Chair 2021–)
- Riitta Autere, MA, Ministerial Adviser at the Ministry of Finance's Public Sector ICT Department, whose tasks include information policy, steering of ICT development in public administration and open data (CSC Board Member 2021–)
- Laura Eiro, L.M., Director General of the Data, Safety and Security Department, Ministry of Transport and Communications (CSC Board Member 2022–)
- Tua Huomo, PhD, MBA, member of executive leadership team at VTT Technical Research Centre of Finland (CSC Board member 2020–)
- Hannu Kempainen, Lic. Sc. (Tech.), Executive Director (Strategic Performance Management) and Management Group member at Business Finland (CSC Board Member 2021–)
- Petri Myllymäki, PhD, Professor of Artificial Intelligence and Machine Learning at the University of Helsinki (CSC Board Member 2021–)
- Petri Raivo, PhD, President and CEO of Karelia University of Applied Sciences (CSC Board Member 2023–).

The share of independent Board members is 100%.

CSC's Board of Directors promotes the company's interests and supervises its accounts, financial management, profit development and governance.

The Board discusses all matters with far-reaching consequences for CSC's operations, including strategy, action plan, budget, significant investments, and risk management principles. The Board of Directors is responsible for sustainability at CSC.

The Board monitors sustainability management, its implementation and risk management in accordance with its rules of procedure.

Managing Director and Management Group

The Managing Director is assisted by a Management Group whose members' competence and expertise cover CSC's business, partnerships, public affairs and finances. The Management Group draws on the expertise of the company's sustainability function for identifying, managing and developing sustainability issues. The personnel have a representative in the Management Group.

In 2024, CSC's Managing Director was Kimmo Koski, PhD (Tech.), who has been in CSC's service since 2004. The other members of the Management Group were:

- Tiina Kupila-Rantala (PhD, MBA, Vice Managing Director of CSC since 2011, in CSC's service since 1996)
- Janne Kanner (M.Sc., Director, Services for Data Management; in CSC's service since 1999)
- Teemu Kiviniemi (M.Sc. (Tech.), Director, Shared ICT Solutions, in CSC's service since 2008)
- Irina Kupiainen (M.Soc.Sc., eMBA, Director, EU Affairs, Policy and Business Development, in CSC's service since 2012)
- Damien Lecarpentier (PhD, Director, International Collaborations and Partnerships, in CSC's service since 2009)
- Kimmo Niittuaho (M. Sc. (Econ.), CFO, in CSC's service since 2003)
- Hanna-Mari Puuska (PhD, Director, Digital Service Ecosystems, in CSC's service since 2010)
- Mari Walls (PhD, Professor, Director, Research Organization Collaboration and Academic Partnerships, in CSC's service since 2023)
- Per Öster (PhD, Director of Advanced Computing Facility, in CSC's service since 2007)
- Tomasz Malkiewicz (PhD, Senior Application Specialist, personnel representative, in CSC's service since 2011).

Gender diversity of Management Group members

	Number	Share
Male	7	64%
Female	4	36%
Total	11	100%

The Managing Director is responsible for directing CSC's business operations and the attainment of its objectives in compliance with the Limited Liability Companies Act, other applicable legislation as well as the Board's instructions and the adopted strategy. The Managing Director is responsible for the organisation of accounting and financial management, operational management and operational decisions.

Council

In addition to the administrative and management bodies referred to in the Limited Liability Companies Act, CSC's owners (the State 70%, Finnish higher education institutions 30%) have arranged their cooperation by drawing up a shareholder agreement and setting up a joint advisory council. The Council promotes the owners' interests, and its main task is to draw up an ownership strategy for the company and monitor its implementation. The Council is elected for two years at a time. The State appoints five members to the Council, while the higher education institutions

jointly appoint another five. The chair of the Council is also appointed by the State.

The ownership strategy prepared by the Council for 2023–2024 notes that the company must promote the realisation of equality, equity, accessibility and sustainability in its operation.

Practical organisation of sustainability work

Sustainability management and the coordination of work take place through CSC's general management system. The Director of Communications and Sustainability is responsible for the organisation and development of sustainability work. The Sustainability Manager is responsible for the implementation of CSC's sustainability programme, sustainability work and the development and implementation of sustainability reporting. The Sustainability Manager is supported by a sustainability team working under the Director. The Director of Communications and Sustainability reports to the Vice Managing Director, who is a member of the Management Group.

Information provided to and sustainability matters addressed by the undertaking's administrative, management and supervisory bodies

The Board of Directors discusses sustainability matters when this is topical and appropriate. The topics can

be presented to the Board either as part of the Managing Director's review or as separate items on the agenda.

During the reporting period, the Board of Directors has discussed the following sustainability topics:

- Outcomes of materiality assessment phase 1
- People Agenda prepared to support HR management
- Sustainability programme
- Personnel survey results
- Performance bonus criteria and awarding of performance bonuses
- Results of the Reputation & Trust survey for the heads of higher education institutions and research institutes
- Risk management plan and strategic risks in 2024 with residual risk.

Phase 1 of the double materiality assessment carried out in 2023–2024 was approved by CSC's Management Group in autumn 2023. Some Management Group members also participated in internal stakeholder events organised as part of the materiality assessment. In phase 2 of the materiality assessment in 2024, the Management Group was consulted separately to add detail to the company's material sustainability topics. In this context, the Management Group members were informed of the new reporting requirements applicable to the company.

During the reporting period, the Management Group has discussed the following sustainability topics:

- Science Based Targets initiative from CSC's viewpoint
- People Agenda
- Personnel survey results
- Pay system development
- Risk management policy update
- Information security policy update
- Customer survey results
- Management system reform.

Integration of sustainability-related performance in incentive schemes

The incentive bonus system is compliant with the Government Resolution on Ownership Policy (8 April 2020) and based on the annual decision of CSC's Board of Directors on the distribution of incentive bonuses. The determination of the incentive bonus for the personnel and management is influenced by the achievement of the company's objectives and personal performance targets. Creating a Sustainability programme for the company was one of CSC's company-level performance targets for 2024 in the area Competent, accommodating and responsible CSC.



Strategy

Strategy, business model and value chain

Business model

CSC is a company entrusted with special state assignment owned by the State of Finland (70%) and the Finnish higher education institutions (different shareholdings totalling 30%). CSC develops and provides expert ICT services of a high international standard for research, education, culture, public administration, and enterprises. The company plays an important role as an instrument of the education, science and cultural policy steering and development by the Ministry of Education and Culture, and its international activities serve the vitality of the Finnish research community and education system.

CSC's services comprise the FUNET data network and its services, digital education services, expert services, data warehouse services, and data management and scientific computing services, including open research data, digital preservation and sensitive data services. CSC additionally provides services for the joint Digivisio 2030 programme of 37 Finnish higher education institutions and is the host organisation of the LUMI ecosystem under a mandate from the Ministry of Education

and Culture and selected by the EuroHPC Joint Undertaking of the EU and its Member States.

During the reporting period, the company's total revenue was EUR 95.5 million.

Value chain

CSC plays a key role in supporting the digital infrastructure of Finnish research, education and public administration. CSC frequently develops its services in extensive cooperation, also as part of various networks. In competitive funding projects, the company often works together with foreign partners as well as national customers.

The data center ecosystem in Kajaani facilitates the provision of competitive data management and computing services and the development of partnerships. As proof of their exceptional security and reliability, CSC's Kajaani data centers have been awarded international ISO/IEC 27001 certification.

CSC selects hardware suppliers on the basis of competitive tendering. As a rule, contracts are multiannual and include not only equipment purchases but also services, such as consulting, installation and maintenance contracts. This applies to both equipment intended for the company's own

activities and the infrastructure offered to customers. Consulting agreements are resorted to especially in the development and provision of education services and in the work of the Digivisio programme office. CSC also uses off-the-shelf, commercial IT services as part of its own activities as well as the services offered to customers. Compiling and analysing data concerning such aspects as emissions and human rights impacts in the upstream value chain requires further development.

Key end-user groups comprise researchers at higher education institutions and research institutes, teachers and students, public administration actors including ministries and government agencies, and companies. The compilation and analysis of data concerning emissions generated from service use in customer environments will require further development.

One of CSC's key resources is expertise. Means of securing adequate expertise include:

- satisfied and competent personnel
- persons working in projects under consultancy contracts
- cooperation, networks and partnerships.

At the end of the reporting period, CSC employed 670 people.

Strategy and sustainability

Based on the materiality assessment conducted in 2023, CSC has created a Sustainability programme based on the material sustainability topics for CSC. The highest level describes CSC's contribution to and positive impact on society, especially through providing support for research and education. The core describes the way in which CSC looks after the environment and its personnel. CSC's foundation, ethical business, guides all operations of the company.

Sustainability is a cross-cutting part of the objectives in the company's strategy for 2025–2030:

- We provide the most impact generating HPC and data ecosystem in the world
- We are a pacesetter for responsible adoption of artificial intelligence
- We bridge silos to enhance our customers success.

Sustainability is a cross-cutting theme in the strategy for 2025–2030 that must be accounted for in efforts to achieve all objectives. The main priorities are:

1) sustainability in our value chains (business ethics,

human rights), 2) social responsibility (employer role, diversity), 3) green transition and biodiversity. These topics have also been identified as important in the ownership strategy prepared by the Council.

Through its strategic objectives, CSC promotes enhancing the impact of research, creation of synergies and the progress of the digital transformation. This is an integral part of CSC's Sustainability programme. The Sustainability programme supports the implementation of the strategy as it has been formulated around themes identified as being material for CSC.

CSC's Sustainability programme

CSC offers its customers and owners cost-effective, safe and interoperable research environments as well as services that enable smooth everyday research, learning and teaching. CSC's services enable the use of science in decision-making. CSC's expertise, networks and experts help to secure RDI funding for areas of national importance. Together with its customers and partners, CSC develops critical technologies and new practices – such as artificial intelligence, data analytics and quantum computing.

For CSC's value creation model, see the chapter on CSC's impact.

Interests and views of stakeholders

Open and active interaction with stakeholders is particularly important for CSC's operations. Through dialogue, we can strengthen stakeholder relations and understand the expectations and wishes placed on CSC, enabling us to respond to them better together.

CSC updated its strategy in late 2024. The updated strategy pays more attention to the customer centricity of activities as well as to service users. The cross-cutting themes of the strategy are: Security and resilience, Customer centricity and Sustainability

Sustainability programme



Our contribution



CSC for research and education

We enable impactful research, innovation and digitalisation for higher education, research and cultural organisations by providing access to data, tools and expertise.



Our core

CSC for our planet

We minimise our environmental footprint throughout the value chain, improve resource efficiency, and promote the circular economy.

CSC for our people

We ensure our personnel's holistic well-being, embed diversity and inclusion in our culture and practices, and enable continuous learning for our employees.

Our foundation

CSC for ethical business

We uphold high standards and good corporate governance. We expect our partners and suppliers to commit to the same values. We ensure compliance, data security and privacy and foster transparency.

Interaction with key stakeholders

Stakeholders and engagement	Owners	Customers	Personnel	Service end-users	Project and network partners	Suppliers of equipment, goods and services	Research infrastructure funders	Authorities, local communities and other organizations	The public
Organisation	<ul style="list-style-type: none"> Owners as CSC's customers Council CSC management's meetings with the Ministry of Education and Culture 	<ul style="list-style-type: none"> Customer steering and steering co-operation between higher education and research ICT Customer events and training Customer satisfaction surveys, incl. T-Media's Reputation & Trust survey for rectors of higher education institutions and heads of research institutes 	<ul style="list-style-type: none"> Dialogue between the employee and the supervisor Annual development discussions Annual personnel survey Cooperation with personnel representatives (incl. CSC dialogue) Information events for personnel four times a year 	<ul style="list-style-type: none"> Service use, training and technical support Annual survey addressed to data management and computing service users User surveys, feedback and mapping of user experience regarding other services 	<ul style="list-style-type: none"> National and international networks Joint projects 	<ul style="list-style-type: none"> Price and other negotiations Regular quality/development and other meetings, feedback from suppliers Consultants as CSC team members 	<ul style="list-style-type: none"> Commenting on the preparation of EU funding programmes Regular contacts with funders Reporting as agreed 	<ul style="list-style-type: none"> Statements for preparation of national and European decisions Expert role in committee hearings Open dialogue with authorities, decision-makers and local communities Data center visits for stakeholders 	<ul style="list-style-type: none"> Active contact with media representatives Systematic media tracking CSC.fi website Social media channels
Objective	<ul style="list-style-type: none"> Carrying out our special assignment cost-effectively and to a high standard Healthy finances, sustainability and social impact 	<ul style="list-style-type: none"> Ensuring cost-effective services and customer support that meet the needs Understanding customer needs 	<ul style="list-style-type: none"> Competence development, good management and ensuring well-being at work Consultation of personnel about decisions concerning them Open, topical and trustworthy interaction 	<ul style="list-style-type: none"> Developing competence in more efficient service use Understanding user needs 	<ul style="list-style-type: none"> Mapping new funding and cooperation opportunities Development of competence, services and infrastructure Supporting cooperation between Finnish and international researchers 	<ul style="list-style-type: none"> Open cooperation Long-term agreements Equal treatment Sustainability throughout the value chain 	<ul style="list-style-type: none"> Promoting aspects that are essential for customers in funding programme wordings Success in projects Responsible cost monitoring and reporting of results 	<ul style="list-style-type: none"> Making the digitalisation needs of RDI and education visible for the benefit of customers and the whole country Cooperation with local community representatives in Kajaani 	<ul style="list-style-type: none"> Open and timely communications Availability Providing expert opinions Following and participating in public debate
Addressed in the strategy and business model	<ul style="list-style-type: none"> The company strategy implements the ownership strategy prepared by the Council Owners' representatives were interviewed in connection with the materiality assessment 	<ul style="list-style-type: none"> Service and development activities are based on interaction and working together Use of feedback in strategy work Customer representatives were interviewed in connection with the materiality assessment 	<ul style="list-style-type: none"> CSC's People Agenda prioritises personnel-related themes and supports the implementation of the company's strategy The personnel were engaged in materiality assessment workshops 	<ul style="list-style-type: none"> User-centric service development 	<ul style="list-style-type: none"> International cooperation enables us to provide services that we could not develop alone 	<ul style="list-style-type: none"> CSC uses framework agreements put out to tender by Hansel Essential information security requirements are included in the invitation to tender The procurement guidelines instruct purchasers to examine environmental factors over the full life cycle of the product or service 	<ul style="list-style-type: none"> New funding opportunities help secure high-quality services for higher education institutions and research institutes 	<ul style="list-style-type: none"> Ensuring operating conditions significant for the company's activities 	<ul style="list-style-type: none"> Bolstering the company's public image Reinforcing trust

Material impacts, risks and opportunities and sustainability topics, sub-topics and sub-sub-topics

Impacts, risks and opportunities	Sub-topic	Sub-sub-topic
E1 Climate change		
<ul style="list-style-type: none"> CSC's supercomputers as enablers of climate research Demand for CSC's services will increase 	Climate change adaptation and mitigation	
<ul style="list-style-type: none"> Negative impacts of data center energy use Energy efficiency and renewable energy use as a competitive advantage Changes in energy prices and availability Positive impacts through introducing green IT practices and sharing them with customers Availability and price of critical components 	Energy	
E4 Biodiversity and ecosystems & E5 Resource use and circular economy		
<ul style="list-style-type: none"> Enabling research 		
S1 Own workforce		
<ul style="list-style-type: none"> Good employer reputation Preserving and acquiring critical competence 	Working conditions	
<ul style="list-style-type: none"> Employees' holistic well-being 		Work-life balance Health and safety
<ul style="list-style-type: none"> Positive impacts related to promoting diversity, equity and inclusion Rich and diverse work community as a resource 	Equal treatment and opportunities for all	Diversity
<ul style="list-style-type: none"> Comprehensible and transparent remuneration criteria 		Gender equality and equal pay for work of equal value
<ul style="list-style-type: none"> Investing in continuous learning and development 		Training and skills development

Impacts, risks and opportunities	Sub-topic	Sub-sub-topic
S2 Workers in the value chain		
<ul style="list-style-type: none"> Reputation as an attractive partner will increase the availability of competence 	Working conditions Equal treatment and opportunities for all	Work-life balance Gender equality and equal pay for work of equal value
S4 Consumers and end-users		
<ul style="list-style-type: none"> Centralised and easily accessible teaching materials for teachers Enabling location-independent studying Positive societal impacts Efficient data management and open data will bring savings and benefits to partners 	Information-related impacts for consumers and/or end-users	Access to (quality) information
<ul style="list-style-type: none"> Offering services that are secure, reliable and societally relevant 		Privacy
<ul style="list-style-type: none"> Positive impact on researchers' and employees' workflows Digital preservation of cultural heritage for the benefit of Finns Streamlining of higher education institutions' application processes 	Social inclusion of consumers and/or end-users	Access to products and services
G1 Business conduct		
<ul style="list-style-type: none"> Promoting research cooperation Reputational risk in case of misconduct in the value chain Reputation based on reliability and transparency 	Corporate culture	
<ul style="list-style-type: none"> Stakeholder engagement and support for decision-making 	Political influence and lobbying activities	

Impact, risk and opportunity management

Description of the process to identify and assess material impacts, risks and opportunities

CSC's materiality assessment was conducted in two phases in 2023–2024. In phase 1 carried out in 2023, we identified our impacts on people and the environment and assessed the business risks and opportunities associated with sustainability. The analysis included a stakeholder consultation, the aim of which was to learn about key stakeholders' expectations regarding CSC's sustainability work. Phase 1 outcomes of the materiality assessment were used to support the creation of CSC's sustainability programme.

In phase 2 of the materiality assessment in 2024, the assessment of impacts, risks and opportunities was expanded to cover sub-topics and sub-sub-topics of the EU sustainability reporting standards and to take into account the directive's guidance on prioritising impacts, risks and opportunities. In phase 2, the analysis was further developed and CSC's Management Group was engaged to the process. As

part of the work carried out in 2024, an assessment scale and materiality thresholds were defined.

The following methods were used in the assessment:

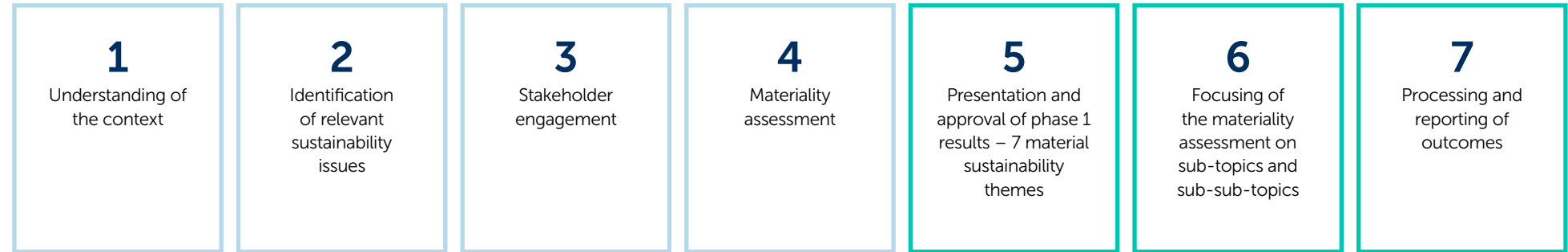
- background study
- internal workshops
- interviews
- survey addressed to the Management Group.

To identify CSC's material impacts, risks and opportunities, CSC's characteristics as an IT company on the one hand and as a company entrusted with special state assignment on the other were taken into consideration.

The Director of Communications and Sustainability is responsible for the process to identify, assess and manage impacts, risks and opportunities. At CSC, the same unit is responsible for both the process to identify, assess and manage impacts and risks and the general risk management process. Knowledge and understanding of the risks are transferred between the processes in both directions. Risk profiles and risk management processes highlight material sustainability risks in the risk descriptions. The risk management process is used as a source of information for defining material sustainability issues.



Phases of CSC's double materiality assessment conducted in 2023–2024



The double materiality assessment identified CSC's impacts, both in its own operations and in upstream and downstream value chain. The process did not focus on specific activities, business relationships, geographical areas or other factors that increase the risk of adverse effects. CSC's owners and customers are important stakeholders in terms of the company's operations and sustainability work, which is why their representatives were interviewed during the process to understand their expectations regarding sustainability at CSC. The members of the Board, Council and strategy sparring group were deemed to provide a sufficient understanding of external stakeholders' expectations, as many of them play a role not only as members of the bodies in question but also as CSC's owners and customers.

Phase one of the analysis was conducted with Impaktly Oy. In this phase, a background study was carried out based on existing internal materials, including CSC's strategy documentation, previous sustainability reports, and personnel surveys, complemented with identification of the typical impacts, risks and opportunities of the sector. Internal and external stakeholders' views of realised and potential impacts, risks and opportunities were collected through interviews and workshops. In workshops, the likelihood and scale of the impacts were assessed. These workshops were attended by CSC experts, managers and directors. Members of CSC's Board of Directors, Council and strategy sparring group were interviewed as part of the process.

Based on the collected views and background data, the impacts, risks and opportunities were assessed and prioritised. The prioritisation was based on double materiality; in other words, CSC's impacts on the environment, society, personnel and other stakeholders as well as the qualitative and financial risks and opportunities associated with sustainability matters were addressed. The prioritisation was based on the likelihood and scale of the impact, risk or opportunity.

Impacts

The impacts were assessed on the basis of their relative severity and likelihood. In the assessment of severity, the scale, scope and irremediable character (for negative impacts only) of the impacts were taken into account and assessed on a five-step scale (very low, low, moderate, high, very high). Likelihood was assessed on a five-step scale (very unlikely–actual).

In phase two, a scoring system was created for the first-phase assessment scale, and a numeric materiality value was calculated for individual impacts on this basis. The assessments made in the first phase were not altered. The threshold for materiality of impacts was set at 20/25.

Risks and opportunities

In the context of financial materiality, risks and opportunities related to CSC's business were identified. The risks and opportunities were assessed based on a background study, interviews and a workshop. Strategic risks identified in CSC's risk management process were also taken into account in the identification of risks.

The following sustainability risks were identified in CSC's risk management programme:

- Key environmental risks are associated with the energy consumption of CSC's data centers as well as recycling and other waste management when hardware is decommissioned.
- As CSC's service provision is highly dependent on personnel resources, the availability of competent and motivated personnel is a prerequisite for growth and high-quality operations.

The likelihood, scale and nature of risks and opportunities were assessed on the basis of the likelihood and size of the financial effects. Likelihood was assessed on a five-step scale (very unlikely–actual). The size of the financial effects was assessed on a five-step scale (very low, low, moderate, high, very high), taking into account the magnitude and nature of effects.

In phase two, a scoring system was created for the first-phase assessment scale, and a numeric materiality value was calculated for individual risks and opportunities on this basis. The assessments made in the first phase were not altered. The threshold for the materiality of risks and opportunities was set at 12/25.

Outcomes

The first-phase outcomes of the materiality assessment, in which seven key sustainability themes were identified, were approved by CSC's Management Group. Material impacts, risks and opportunities are presented in the section "Material impacts, risks and opportunities and their interaction with strategy and business model". This was CSC's first materiality assessment. The analysis will be reviewed annually as the annual report is prepared.



Disclosure requirements in ESRS covered by the undertaking's sustainability statement

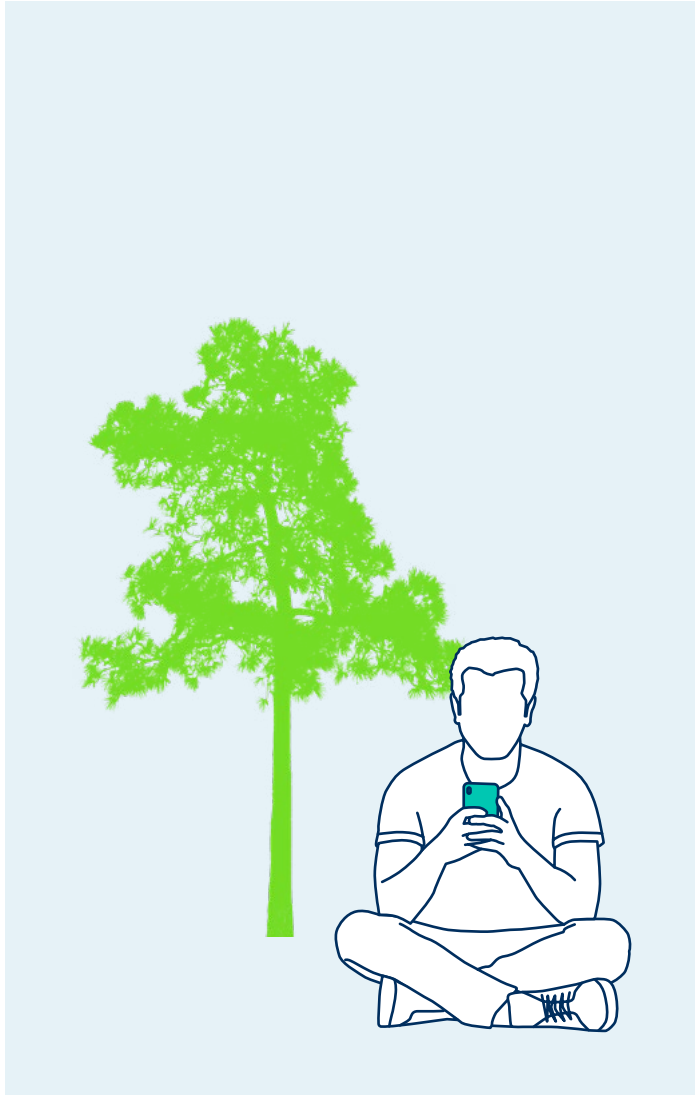
This section explains which disclosure requirements were included in the report and where the information can be found in the report. The reported sustainability matters are based on a double materiality assessment. On the basis of the analysis, key topics, sub-topics and more detailed sub-sub-topics were identified, which are presented in the section "Material impacts, risks and opportunities and their interaction with strategy and business model". The flowchart in Annex E of the European Standards for Sustainability Reporting (ESRS) was used to select the relevant data points.

List of fulfilled disclosure requirements

Standard	Disclosure requirement	Sustainability statement section
ESRS 2 General disclosures	ESRS 2 BP-1	Basis for preparation
	ESRS 2 BP-2	Basis for preparation, (E1): Metrics and targets; (S1): Metrics and targets
	ESRS 2 GOV-1	Governance
	ESRS 2 GOV-2	Governance
	ESRS 2 GOV-3	Governance
	ESRS 2 GOV-4	Will be reported in the future
	ESRS 2 GOV-5	Will be reported in the future
	ESRS 2 SBM-1	Strategy
	ESRS 2 SBM-2	Strategy
	ESRS 2 SBM-3	Strategy (General information and in connection with each topic)
	ESRS 2 IRO-1	Impact, risk and opportunity management
ESRS 2 IRO-2	Impact, risk and opportunity management	
ESRS E1 Climate change	ESRS E1 GOV-3	For a full disclosure on integration of sustainability performance into incentive schemes, see the Governance chapter (ESRS 2).
	ESRS E1-1	CSC does not yet have a transition plan for climate change mitigation
	ESRS E1 SBM-3	Will be reported in the future
	ESRS E1 IRO-1	Will be reported in the future
	ESRS E1-2	(E1) Impact, risk and opportunity management
	ESRS E1-3	(E1) Impact, risk and opportunity management
	ESRS E1-4	CSC has not defined climate targets
	ESRS E1-5	(E1) Metrics and targets
	ESRS E1 entity-specific disclosure	(E1) Metrics and targets
	ESRS E1-6	(E1) Metrics and targets
ESRS E1-9	Will be reported in the future	

Standard	Disclosure requirement	Sustainability statement section
ESRS E4 Biodiversity and ecosystems		Environmental information
ESRS E5 Resource use and circular economy		Environmental information
ESRS S1 Own workforce	ESRS S1 SBM-2	For full information on stakeholders, see the Strategy chapter (ESRS 2)
	ESRS S1 SBM-3	(S1) Strategy
	ESRS S1-1	(S1) Impact, risk and opportunity management
	ESRS S1-2	(S1) Impact, risk and opportunity management
	ESRS S1-3	(S1) Impact, risk and opportunity management
	ESRS S1-4	(S1) Impact, risk and opportunity management
	ESRS S1-5	No targets have been defined for CSC's own workforce
	ESRS S1-6	(S1) Metrics and targets
	ESRS S1-7	(S1) Metrics and targets
	ESRS S1-8	(S1) Metrics and targets
	ESRS S1-9	(S1) Metrics and targets
	ESRS S1-10	(S1) Metrics and targets
	ESRS S1-11	(S1) Metrics and targets
	ESRS S1-13	(S1) Metrics and targets
	ESRS S1-14	(S1) Metrics and targets
	ESRS S1-15	(S1) Metrics and targets
	ESRS S1-16	Will be reported in the future
ESRS S1-17	No data available	

Standard	Disclosure requirement	Sustainability statement section
ESRS S2 Workers in the value chain	ESRS S2 SBM-2	For full information on stakeholders, see the Strategy chapter (ESRS 2)
	ESRS S2 SBM-3	(S2) Strategy
	ESRS S2-1	Phase-in
	ESRS S2-2	Phase-in
	ESRS S2-3	Phase-in
	ESRS S2-4	Phase-in
	ESRS S2-5	Phase-in
	Phase-in as set out in ESRS 1 Annex C	(S2) Strategy
ESRS S4 Consumers and end-users	ESRS S4 SBM-2	For full information on stakeholders, see the Strategy chapter (ESRS 2)
	ESRS S4 SBM-3	(S4) Strategy
	ESRS S4-1	Phase-in
	ESRS S4-2	Phase-in
	ESRS S4-3	Phase-in
	ESRS S4-4	Phase-in
	ESRS S4-5	Phase-in
	Phase-in as set out in ESRS 1 Annex C	(S4) Strategy
ESRS G1 Business conduct	ESRS G1 GOV-1	For full information on the role of administrative, management and supervisory bodies, see the Strategy chapter (ESRS 2)
	ESRS G1 IRO-1	Will be reported in the future
	ESRS G1-1	(G1) Impact, risk and opportunity management
	ESRS G1-2	(G1) Impact, risk and opportunity management
	ESRS G1-5	(G1) Metrics and targets



Environmental information

Climate change

Material impacts, risks and opportunities related to climate change

Impacts	Risks and opportunities for CSC	Management
Climate change adaptation and mitigation		
<p>CSC's supercomputers as enablers of climate research <i>Downstream value chain</i></p> <ul style="list-style-type: none"> CSC's experts and services are able to support multidisciplinary research in which large datasets are combined, helping to understand the mechanisms of climate change and to mitigate its impacts. By enabling research, CSC's services can support the attainment of national and European climate targets. CSC's services and development work help customers transfer, calculate, compile, describe, store, analyse, combine and apply data, creating new understanding for building a better future. The impact will increase over the long term. 	<p>Demand for CSC's services will increase <i>Downstream value chain</i></p> <ul style="list-style-type: none"> As the demand for climate research grows, CSC's ability to enable research internationally will increase the demand for CSC services. The impact will increase over the long term.. 	<ul style="list-style-type: none"> CSC leads and participates in international projects which develop digital twins and use LUMI supercomputer. CSC offers its services for climate research.
Energy		
<p>Negative impacts of data center energy use <i>Own operations</i></p> <ul style="list-style-type: none"> The data centers consume large amounts of energy, contributing to increasing greenhouse gas emissions. The data centers play a key part in performing CSC's special assignment. The impact will increase over the long term. 	<p>Energy efficiency and renewable energy use as a competitive advantage <i>Downstream value chain</i></p> <ul style="list-style-type: none"> The need for energy-efficient and zero-emission solutions will drive the demand for CSC's efficient services relying on renewable energy. CSC's low-carbon solutions will support the achievement of national targets and the European Green Deal. The impact will increase over the long term. <p>Changes in energy pricing and availability <i>Own operations</i></p> <ul style="list-style-type: none"> The risk factors include volatility in energy availability and price and any changes to CSC's energy taxation. The impact will increase over the long term. 	<ul style="list-style-type: none"> CSC's data centers only use renewable energy with Guarantees of Origin. Efforts are made to improve the energy efficiency of data centers and supercomputers. The waste heat produced by LUMI data center is reused in the City of Kajaani's district heating network. CSC introduced guidelines on environmental criteria in procurements in 2024.
<p>Positive impacts through green IT practices <i>Downstream value chain</i></p> <ul style="list-style-type: none"> CSC can work to improve efficiency relating to data, code and software, making it possible to get more out of the same resources. Through energy efficiency, optimisation also has strong links to costs and, for example, maximising the efficiency of supercomputer capacity use. Green IT practices that drive positive impacts include improved efficiency of data use, reducing and reusing code, improving software efficiency, planning good mechanisms for resource management in the enterprise architecture, and minimising user errors in interface design. The impact will increase over the long term. 	<p>Sharing of green IT practices with customers <i>Downstream value chain</i></p> <ul style="list-style-type: none"> CSC can help its customers reduce emissions and improve energy efficiency. The impact will increase over the long term. 	
	<p>Availability and price of critical components <i>Upstream value chain</i></p> <ul style="list-style-type: none"> This applies particularly to data centers and their components and hardware. This risk has already been realised, and it is also very likely to be realised in the future due to the limited number of component suppliers. The impact will increase over the long term. 	

Impact, risk and opportunity management

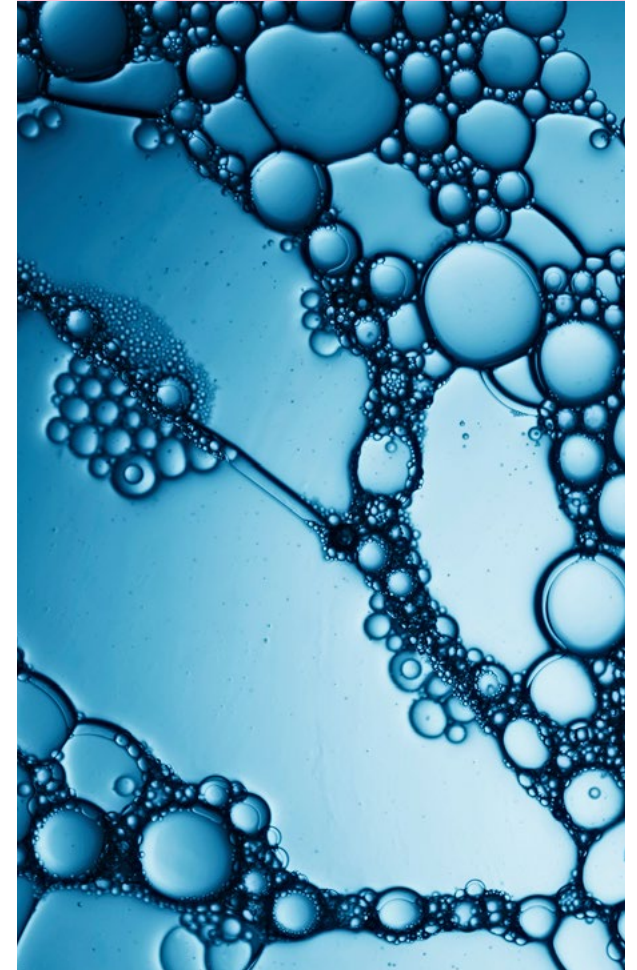
Policies related to climate change mitigation and adaptation

For information on CSC's Sustainability programme, see the section titled "Strategy, business model and value chain" in the General information chapter. In the CSC for our planet section of the programme, our goal is to reduce our environmental footprint throughout our value chain and promote resource efficiency and circular economy.

We will reduce our negative environmental impacts by providing energy-efficient, shared and correctly dimensioned digital services for our customers. We only use certified electricity from renewable energy sources. When procuring data centers and supercomputers, we pay attention to energy efficiency. Waste heat from supercomputer LUMI's data center is circulated into Kajaani's district heating network, reducing the city's carbon footprint.

Actions and resources in relation to climate change policies

Renewable energy use and investments in energy efficiency have been established practices at CSC for a long period. In Espoo, district heating is also certified and renewable. CSC will continue using renewable energy, and the current energy-efficient infrastructures will not require significant additional investments. CSC has introduced guidelines on environmental criteria in procurements, the most essential criteria of which are related to energy efficiency.



Metrics and targets

Energy

Energy consumption and mix

	2023	2024
6) Total fossil energy consumption (MWh)	15.8	15.8
Share of fossil sources in total energy consumption (%)	0.02%	0.02%
7) Consumption from nuclear sources (MWh)		0
Share of consumption from nuclear sources in total energy consumption (%)		0%
8) Fuel consumption from renewable sources, including biomass (also comprising industrial and municipal waste of biologic origin, biogas, renewable hydrogen, etc.) (MWh)		0
9) Consumption of purchased or acquired electricity, heat, steam, and cooling from renewable sources (MWh)	64,682.3	74,764.3
10) Consumption of self-generated non-fuel renewable energy (MWh)		0
11) Total renewable energy consumption (MWh) (calculated as the sum of lines 8 to 10)	64,682.3	74,764.3
Share of renewable sources in total energy consumption (%)	99.98%	99.98%
Total energy consumption (MWh) (calculated as the sum of lines 6 and 11)	64,698.1	74,780.2

The total consumption of energy from renewable sources includes metered consumption at CSC's data centers and offices and the share of Espoo offices in the metered district heating consumption of the property. No heat consumption figures are available for the property in Kajaani. Fossil energy is consumed in a backup generator, whose consumption figure is a calculated estimate.

Energy efficiency of data centers

As of 2024, CSC publishes and reports significant energy efficiency, water footprint and demand response data referred to in Article 12 of the Energy Efficiency Directive (EED) to the EU Data Centre Database.

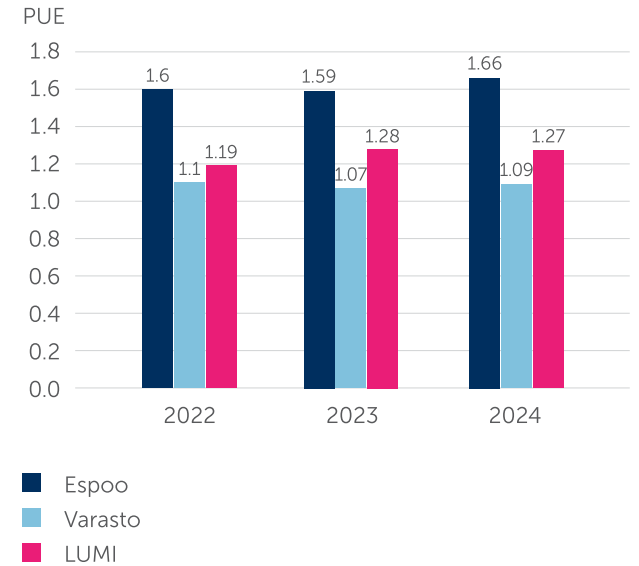
Energy efficiency of data centers in 2024

	PUE	ERE	Energy produced for district heating network (MWh)
EuroHPC (LUMI data center)	1.27	0.54	32,382.364
Varasto (national data center, Kajaani)	1.09		
Pohja (Espoo data center)	1.66		

Energy efficiency is measured as a PUE value (Power Usage Effectiveness). The PUE value does not provide a complete picture of energy efficiency, as the data center's utilisation rate should be accounted for. As PUE is the most common internationally used metric, it was chosen as an indicator due to its comparability: $PUE = (\text{total energy}) / (\text{IT systems})$.

Another indicator, Energy Reuse Effectiveness (ERE), takes into account waste heat recovery: $ERE = (\text{total energy} - \text{reuse}) / (\text{IT systems})$.

CSC's data centers' energy efficiency in 2022–2024



Gross Scopes 1, 2, 3 and total GHG emissions

The emissions were calculated in accordance with the GHG Protocol Corporate Standard, GHG Protocol Scope 2 Guidance, and GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Scope 3 categories 8, 9, 10, 12, 13 and 14 are not applicable to CSC's operations. In the current calculation method, category 4 is included in category 1 and 2 emissions. Category 11 and 15 will be developed in the future.

GHG intensity based on net revenue

GHG intensity per net revenue	2024 (tCO ₂ eq/EUR million)
Total GHG emissions (location-based) per net revenue	191.70
Total GHG emissions (market-based) per net revenue	128.18
Net revenue used to calculate GHG intensity	78,139,688.68

Gross Scopes 1, 2, 3 and total GHG emissions

	2023	2024
Scope 1 GHG emissions		
Gross Scope 1 GHG emissions (tCO ₂ eq)	4.41	4.41
Percentage of Scope 1 GHG emissions from regulated emission trading schemes (%)	0	0
Scope 2 GHG emissions		
Gross location-based Scope 2 GHG emissions (tCO ₂ eq)		4,963.03
Gross market-based Scope 2 GHG emissions (tCO ₂ eq)	0	0
Significant Scope 3 GHG emissions		
Total Gross indirect (Scope 3) GHG emissions (tCO ₂ eq)	2,083.96	10,011.88
1 Purchased goods and services		6,289.15
2 Capital goods		892.80
3 Fuel and energy-related activities (not included in Scope 1 or Scope 2)	1,694.6	1,831.48
5 Waste generated in operations	0.96	17.34
6 Business travel	236.7	818.68
7 Employee commuting	151.83	162.43
Total GHG emissions		
Total GHG emissions (location-based) (tCO ₂ eq)		14,979.31
Total GHG emissions (market-based) (tCO ₂ eq)	2,088.92	10,016.28

The figures for 2023 and 2024 are not comparable. The figures for 2024 are more accurate and cover more categories.

Methodologies, significant assumptions and emissions factors and reporting boundaries

<p>Scope 1</p>	<p>The calculations are based on estimated consumption, and indirect sources have been used in the calculation. Annual consumption was estimated based on equipment supplier's consumption figures and the estimated operating time. More accurate consumption data are not available with the current tools, and additional investments are not justified as the emissions are small and will be eliminated after 2026.</p> <p>Emission factors: DEFRA 2024, Gas oil</p>	<p>Scope 3: 5 Waste generated in operations</p>	<p>The figures for waste are based on waste management companies' reports and the share allocated by the properties to CSC (mass-based data).</p> <p>Emission factors: Y-HILLARI (2022) Julia2030 project</p>
<p>Scope 2</p>	<p>The calculations are based on consumption figures in electricity and district heating bills. The total district heating consumption of Espoo premises has been allocated to the offices based on their surface areas. The district heating data for Kajaani are not included in the calculation.</p> <p>100% of the electricity purchased by CSC and district heating in Espoo has Guarantee of Origin.</p> <p>Emission factors: Statistics Finland, Finland's average emission factor, energy method Paikallisvoima, District heat emissions calculator, Emissions from the district heating network, Fortum Power and Heat Oy, energy method</p>	<p>Scope 3: 6 Business travel</p>	<p>Emissions related to business travel were calculated based on both the travel agency's emissions report and travel claim calculations. Business travel includes flights, domestic train travel, travel by public transport (Helsinki Region Transport), journeys taken by taxis and private cars, and hotel stays. The figures do not include public transport use abroad.</p> <p>Emission factors: VR Annual Report 2023, Passenger train services in Finland Traficom, Commissioned passenger cars, average CO₂ emissions in Finland (NEDC) Helsinki Region Transport, Sustainability report 2023</p>
<p>Scope 3: 1 Purchased goods and services</p>	<p>The figures are based on Hansel's Hankintapulssi emission calculations (spend-based data). Hankintapulssi calculation is based on purchase invoice data and a calculation model developed by the Finnish Environment Institute. Measurement uncertainty is associated with emission factors relating to spend-based data, as they are based on average data and consequently do not reflect suppliers' actual emissions. The monetary amounts used in the calculation are accurate.</p>	<p>Scope 3: 7 Employee commuting</p>	<p>Emissions from commuting were estimated based on a commuting survey conducted in 2024 (distance-based data). The estimate of total emissions is based on the average number of employees in 2024.</p> <p>Emission factors: VTT LIPASTO, VR, HSL, Finnish Information Centre of Automobile Sector, VTT 2017, DEFRA.</p>
<p>Scope 3: 2 Capital goods</p>	<p>See 1 Purchased goods.</p>		
<p>Scope 3: 3 Fuel and energy-related activities (not included in Scope1 or Scope 2)</p>	<p>See Scope 2.</p> <p>Emission factors: IPCC (2014), Hydropower upstream emissions DEFRA (2024), Gas oil upstream emissions, WWT Finnish Energy, district heating transfer losses Fingrid, power grid transfer losses</p>		

Biodiversity and ecosystems & Resource use and circular economy

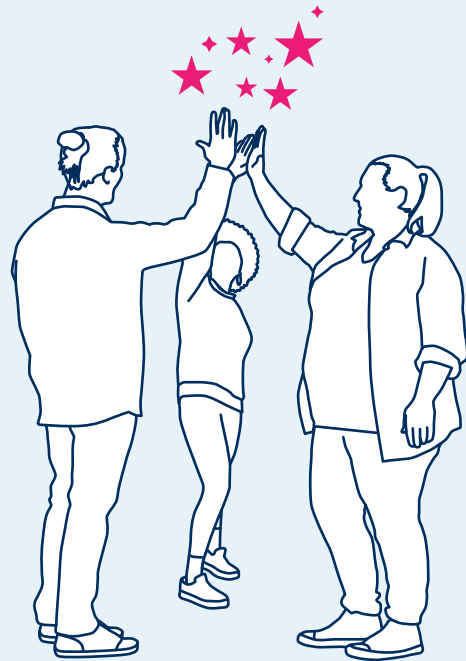
CSC's materiality assessment found that Biodiversity and ecosystems (ESRS E4) and Resource use and circular economy (ESRS E5) are material in the downstream value chain. For both topics, a material opportunity was identified associated with enabling research in CSC's downstream value chain. Biodiversity research requires large data volumes, data processing and identification of complex interdependencies. Circular economy research offers plenty of opportunities for data use and it can, for example, be applied to innovative materials. An increasing demand

for data and research related to both biodiversity and the circular economy is likely to create demand for CSC's services. This opportunity is expected to increase over the long term. By being active and working together with the ministry, CSC may also be able to increase the recognisability of its services in this area.

No material impacts or risks were identified in the context of biodiversity and ecosystems or circular economy.

Material impacts, risks and opportunities related to biodiversity and ecosystems, resource use and the circular economy

Impacts	Risks and opportunities for CSC	Management
Biodiversity and ecosystems		
	Enabling research	As part of its special assignment, CSC offers data management and computing services for research.
Resource use and circular economy		
	Enabling research	As part of its special assignment, CSC offers data management and computing services for research.



Social information

Own workforce

Material impacts, risks and opportunities related to own workforce

Impacts	Risks and opportunities for CSC	Management
Working conditions		
<p>Employees' holistic well-being <i>Sub-sub-topics: Work-life balance; Health and safety</i></p> <p>Both positive and potential negative impacts are associated with the employees' engagement and holistic well-being: offering meaningful work, supporting a balance between work and family life, a healthy and safe work environment, and providing opportunities for growth and development. As a whole, these topics have a positive impact on the well-being of all CSC employees.</p>	<p>The employees play a critical role in CSC's business and strategy implementation. Without skilled, thriving and motivated personnel, CSC's operating conditions will deteriorate. <i>Sub-topics: Working conditions & equal treatment and opportunities for all</i></p> <p>Good employer reputation A good reputation and offering meaningful and challenging work will strengthen CSC's ability to attract skilled workforce.</p> <p>Retaining and attracting critical competence CSC competes with the private sector and risks being unable to obtain the needed highly educated and competent workforce. Competition is expected to become tougher due to increased data intensity in many sectors. This risk will increase in the long term.</p>	<p>CSC invests in personnel well-being in many ways, including training and personnel benefits. CSC strives to attract and retain skilled personnel by developing its ability to identify strategic, critical and core competence and competence needs. CSC develops its employer image, offers opportunities for continuous learning and career development, and strengthens its competence in managing work ability and well-being at work.</p>
Equal treatment and opportunities for all		
<p>Positive impacts related to promoting diversity, equity and inclusion <i>Sub-sub-topics: Diversity</i></p> <p>Promoting diversity, equity and inclusion can influence the well-being of all CSC employees, for example through an increased sense of inclusion and, consequently, job satisfaction and mental well-being. This will enable us to attract and retain skilled workforce.</p>	<p>Rich and diverse work community as a resource <i>Sub-sub-topics: Diversity</i></p> <p>CSC has a rich and diverse work community. Understanding diversity and inclusion in leadership plays a key role in harnessing the benefits of diversity and avoiding risks related to lack of inclusion.</p>	<p>CSC has an internal Code of Conduct as well as an equality and non-discrimination plan that is reviewed and updated regularly.</p>
<p>Comprehensible and transparent remuneration criteria <i>Sub-sub-topics: Gender equality and equal pay for work of equal value</i></p> <p>The fairness, comprehensibility and transparency of the remuneration criteria have as a whole a positive impact on the motivation and commitment of CSC employees. In recent years' personnel surveys, fair remuneration was identified as one of CSC's strengths. Transparency of pay is not currently experienced as adequate, and employees have at times emphasised pay gaps compared to other companies. These factors may have a negative impact on the personnel's engagement.</p>		<p>CSC will develop its remuneration and performance management models</p>
	<p>Investing in continuous learning and development <i>Sub-sub-topics: Training and skills development</i></p> <p>Investments in competence development and well-being will lead to savings in recruitment costs as well as increased productivity and longer careers. Good leadership and supervisory work are important for experts.</p>	<p>An annual personal development plan is drawn up for each employee. Employees have an opportunity to pursue complementary studies that support their personal development, using their weekly working hours on this. The amount of training intended for managers will be increased to align competence development with strategic priorities and to harmonise leadership.</p>

All material impacts, risks and opportunities related to own workforce are associated with CSC's own operations in the value chain.

Impact, risk and opportunity management

Policies related to own workforce

CSC's policies related to its own workforce aim to promote the employees' holistic well-being, competence development, diversity and equity as well as to prevent harassment and unethical activities.

Code of Conduct

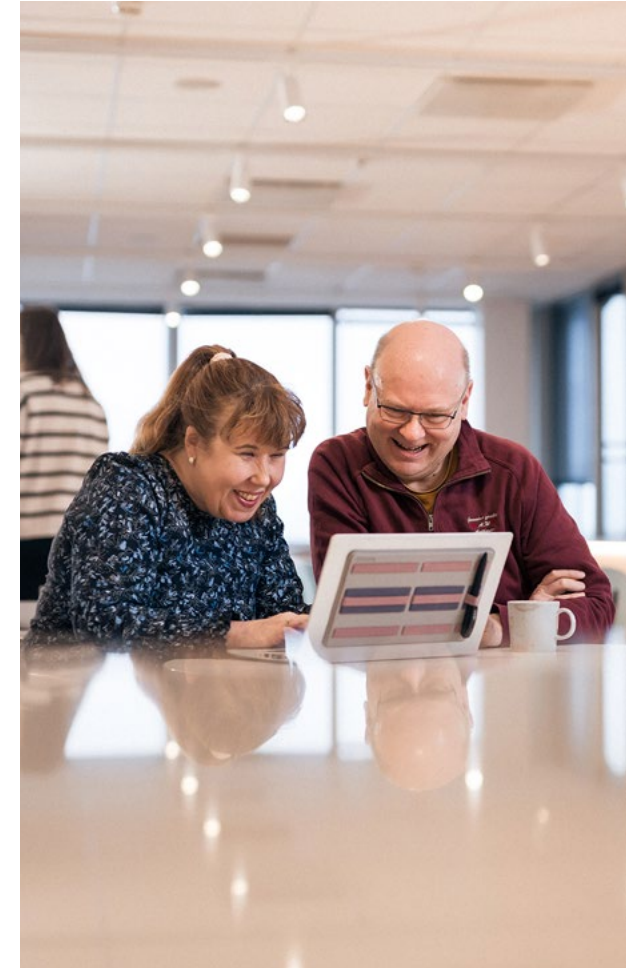
CSC's Code of Conduct defines the organisation's principles and ethical rules for good conduct of business. It guides the current and future actions of CSC's management and employees towards the selected goals. As part of its Code of Conduct, CSC is committed to upholding internationally recognised human rights, including those cited in the UN Universal Declaration of Human Rights and the standards on labour rights defined in International Labour Organization (ILO) conventions as well as to respecting the ten principles of the UN Global Compact.

Every new employee starting at CSC completes Code of Conduct online training as part of their induction. Each employee additionally discusses the Code

of Conduct with their supervisor as part of the annual development discussion known as the CSC discussion. In addition to the organisation's intranet, the Code of Conduct has been published on CSC's website.

Harassment and inappropriate behaviour

CSC has zero tolerance for harassment and inappropriate behaviour. Our Code of Conduct requires everyone to report any inappropriate behaviour or harassment they observe. They can be reported to the supervisor or a personnel representative (personnel representative in administration, shop steward, occupational safety representative) or employment manager (HR). CSC also has a Whistleblower channel compliant with the EU directive, through which reports can be made anonymously if preferred. For more information on the Whistleblower channel, see the "Business conduct policies and corporate culture" section in the Governance information chapter. Any doubts expressed in good faith regarding the breach of the Code of Conduct will be investigated in an objective and confidential and the necessary measures following the investigation will be taken.



Promotion of equity, equality and diversity

CSC is committed to promoting equity, equality and diversity in its work community. CSC accepts no discrimination in the work community. CSC has an equality and non-discrimination plan based on current legislation. The equality and non-discrimination plan pays particular attention to and provides measures for equality related to gender, origin, nationality, language, different employment relationships, age, family relationships and private life. In facilities development, the objective is to promote accessibility and equity.

Support for well-being at work

The general objectives of CSC's occupational health activities and cooperation include supporting the personnel's work ability and functional capacity proactively, promoting well-being at work, and offering high-quality and extensive medical care, with an emphasis on occupational health. The occupational health care action plan is updated annually in cooperation between the employer, occupational health care services, occupational safety and health manager and occupational safety and health representatives. The content of the action plan is directed by occupational health risks identified in a workplace assessment and the occupational health needs jointly identified by the company and occupational health care services. Based on these,

annual targets are set for occupational health cooperation, measures related to them are planned, and indicators are determined.

CSC has an early intervention model aimed at supporting the work ability and coping of its personnel, consequently influencing the well-being at work of the entire work community. The early intervention model includes instructions, forms and support material for conducting an early intervention discussion and supporting return to work after a long absence. One of the priority areas in the development of supervisors' competence in recent years has been work ability management, and coaching and training tailored for CSC focusing on this theme have been organised for supervisors and managers.

The occupational safety and health programme and plan are drawn up in cooperation by the Occupational Safety and Health Committee. The aim is comprehensive, long-term and systematic promotion of health and safety in the workplace. The occupational safety and health programme defines the roles, responsibilities and operating methods of occupational safety and health.

As part of preparing for the move into new facilities, CSC is preparing for WELL certification. WELL is a

certification system that focuses on the well-being and health of users of a property or facility.

CSC offers employee benefits that support well-being at work and recreation in a package that includes sports, culture, commuting and well-being benefits as well as lunch and bicycle benefits. Extensive health insurance and remote work insurance complement the comprehensive occupational health care services. CSC additionally organises well-being and work community events intended for the entire personnel.

The objective of CSC's practices regarding remote work and flexible working hours is to support well-being at work, job satisfaction and work-life balance. CSC has issued remote work instructions and offers a remote work agreement that defines the general principles and practices of working remotely. Employees can work remotely subject to agreement with their supervisor, and this agreement is updated as necessary. The aim is that employees are able to flexibly select the most suitable mode of work within the requirements of their current tasks. Flexible working hours make it possible to allocate working time flexibly according to the work situation.

Competence development

Continuous renewal and competence development pave the way for securing CSC's success and operating conditions. CSC's competence development and renewal models are based on the 70-20-10 model for on-the-job learning and personal development, the purpose of which is to help identify and use diverse means of competence development and practices of sharing and developing competence. In this model, 70% of learning and development takes place at work, for example while solving challenges related to tasks, 20% is based on interaction with colleagues and networks, and 10% takes place through different types of training.

CSC's development discussion model creates a framework for identifying competence needs and competence management, and a coaching approach to leadership supports development in everyday work. The development discussion model ensures that all CSC employees have equal opportunities to discuss their competence development needs with their supervisor. Employees are encouraged to identify and bring up development needs. An annual personal development plan is drawn up for each employee.

CSC invests in the induction training of new employees. An individual induction plan is drawn up

for each person, and a personal tutor is appointed for them. An online induction course that can be completed independently of time and place enables flexible onboarding. Internal training is available for the personnel, and they can also take the initiative in organising competence and information sharing events for the entire workforce. Personnel members can additionally participate in external training as set out in their personal development plans.

The HR Business Partner model encourages supervisors to focus on the themes and practices of competence development and, if necessary, supports them for example in planning performance appraisal discussions.

Processes for engaging with own workers and workers' representatives about impacts

CSC conducts CSC dialogues four times a year. It is a co-operation forum based on the Act on Co-operation within Undertakings. The CSC dialogue helps to ensure that employees have an opportunity to influence decisions affecting them and that their views are heard. The objectives of the dialogue also include improving information flows in the workplace, promoting employee well-being and improving the functioning of the work community. The employer's representatives in the CSC

dialogue are the Managing Director, Vice Managing Director, HR Director, Employment Manager and the Occupational Safety and Health Manager. The shop steward and occupational safety and health representatives participate in the dialogue as personnel representatives. The personnel representative in the management group is also entitled to attend the meetings.

CSC conducts an annual survey addressed at the entire personnel where they can express their views. Four times a year, CSC organises a personnel event where the personnel are informed of topical issues concerning them and where they can ask questions about or express their views of these issues. CSC's personnel are kept informed in Finnish and English through different channels. These channels include the intranet, information events for the personnel, email and instant messaging.

Processes to remediate negative impacts and channels for own workers to raise concerns

CSC's personnel can raise their concerns and bring up their needs by contacting their supervisors, shop stewards, occupational safety and health representatives or the HR Manager, by responding to the annual personnel survey, or by using CSC's Whistleblower channel. CSC encourages employees

to bring up issues with their supervisors. If an employee feels that they would prefer to remain anonymous, CSC's Whistleblower channel offers an opportunity for this.

Taking action on material impacts on own workforce, and approaches to managing material risks and pursuing material opportunities related to own workforce, and effectiveness of those actions

CSC's People Agenda prioritises themes identified as material prerequisites for success from the personnel's viewpoint. The main themes of the People Agenda are:

- Leadership for visibility, meaningfulness and shared goals
- Competence for building our future
- Inclusion for inspiration, belonging and attractiveness
- Safe space for wellbeing, empowerment and the joy of experimenting.

The aim is to set a common direction for CSC's HR management and to strengthen themes identified as material prerequisites for our success from the personnel's viewpoint.

Leadership

In 2024, CSC invested in developing supervisory work by offering an extensive leadership development programme and by coaching supervisors in work ability management and bringing up issues. An HR Business Partner model was additionally introduced to provide supervisors with more targeted support for their supervisory work. In 2025, supervisors will be trained especially in coaching approach to leadership.

CSC started planning the development of its pay system in late 2024. The objective of the pay scheme development is to create a clear and transparent model for personnel's pay that supports engagement and motivation. The planned regime also aims to give visibility to different career paths within CSC.

Competence

To maintain and acquire critical expertise, CSC systematically works to uphold its good employer reputation, both internally and externally. Cooperation with higher education institutions has been developed methodically since 2023. The aim is to secure expertise by developing recruitment cooperation and identifying opportunities for collaboration in competence development.

Inclusion

CSC is committed to complying with the principles of inclusion and safe space in HR management, which have been highlighted as some of the main themes of the People Agenda. The processes and channels of inclusion will be developed.

CSC employs international experts from almost 30 different countries. CSC's official working languages are English and Finnish to ensure that all employees receive the necessary information and are able to participate.

CSC started developing its hybrid work practices in 2024. Updated instructions are to be introduced in 2025. The goal of the update is to provide consistent practices and instructions for hybrid work that will support the activities of CSC's teams and personnel well-being.

Safe space

In 2024, CSC updated its guidelines on intervening in inappropriate treatment and harassment based on personnel feedback. Supervisors have been provided with training on work ability management.

Metrics and targets

Characteristics of the undertaking's employees

The data concerning employees are based on the situation at the end of the financial year on 31 December. The average number of employees during the year was 674, calculated as the average on the last day of each month. During the financial year, 40 permanent employment relationships ended, with a turnover of 6.4%.

Employee head count by gender

Gender	Number of employees (number of persons)
Male	424
Female	245
Other	1
Not reported	0
Total employees	670

Gender reported by the employee.

Employees by contract type, broken down by gender

	Female	Male	Other	Not reported	Total
Number of employees (head count)	245	424	1	0	670
Number of permanent employees (as number of persons)	223	397	-	0	620
Number of temporary employees (as number of persons)	22	27	-	0	49
Number of non-guaranteed hours employees (as number of persons)	0	0	-	0	0
Number of full-time employees (as number of persons)	220	389	-	0	609
Number of part-time employees (as number of persons)	25	35	-	0	60

Gender reported by the employee. As the number of persons in the category "Other" was low, no detailed information is provided to protect their privacy.

Characteristics of non-employees in the undertaking's own workforce

CSC only has employee workers.

Collective bargaining coverage and social dialogue

All CSC employees are covered by collective agreements.

Diversity metrics

Distribution of employees by age group

	Number of employees	%
Under 30	92	14%
30 to 50	400	60%
Over 50	178	26%

Adequate wages

CSC always complies with at least the minimum wages specified in the collective agreement.

Social protection

CSC complies with a model of sick pay that is based on but slightly exceeds that specified in the collective agreement. At the end of paid sick leave specified in the collective agreement, everyone is entitled to sickness allowance paid as part of public social security scheme in Finland. A person may receive unemployment security through membership in an unemployment fund. Everyone is entitled to the general unemployment allowance paid as part of the Finnish public social security scheme. All employers in Finland must take out statutory occupational accident insurance that covers each employee for the treatment costs and loss of income caused by

accidents at work. CSC complies with the collective agreement provisions concerning paid family leave for both the birthing and non-birthing parent. Finnish public social security scheme additionally provides support for parents during family leaves. All employees are covered by the mandatory Finnish Employee Pensions Act (TyEL), the costs of which are shared by the employer and the employee.

Training and skills development metrics

Development needs are discussed in personal performance appraisal discussions. For a description of this model, see the section “Policies related to own workforce”.

Health and safety metrics

All members of CSC’s own workforce are covered by an occupational health and safety management system based on legal requirements and/or recognised standards or guidelines.

Work-life balance metrics

All members of CSC’s own workforce are entitled to family leaves.

Training and regular performance and career development reviews of employees

		Male	Female	Other	Total
Percentage of employees that participated in regular performance and career development reviews	%	100%	100%	–	100%
Average hours of training completed per employee	Hours per person	15.75	9.75	–	13.5

The figures were calculated based on hours recorded in the working time monitoring system with the code for personnel training. This code is also used to record personnel information sessions that do not involve actual training. Personnel training may sometimes be registered as normal working hours, in which case these hours are not included in the number of personnel training hours shown in the Table. As the number of persons in the category “Other” was low, no detailed information is provided to protect their privacy.

Workers in the value chain

Workers in the value chain (ESRS S2) have been assessed to be material in CSC's materiality assessment. As a rule, CSC concludes consultation agreements through Hansel's DPS framework agreements. Hansel conducts a sustainability analysis when selecting contract suppliers. Consultants are largely subject to the same work and supervisory practices as CSC's own workforce. The tasks must be clear and supervisory work appropriate, predictable and accessible. For CSC's general operating principles, see the section on "Policies related to own workforce" in the Own workforce chapter.

CSC has issued internal guidelines on procuring IT consulting services, which include a description of guidance for consultants. The topics covered include induction, work guidance, communication, face-to-face meetings and feedback. These guidelines are provided for all CSC managers and service owners who procure consultant services. Regular quality meetings are also organised with suppliers, at which issues related to well-being at work, coping at work and job satisfaction are also discussed.

Material impacts, risks and opportunities related to workers in the value chain

Impacts	Risks and opportunities for CSC	Management
Working conditions; Equal treatment and opportunities for all		
	<p>Reputation as an attractive partner will increase the availability of skills</p> <p><i>Own operations</i> <i>Sub-sub-topics: Work-life balance; Gender equality and equal pay for work of equal value</i></p> <p>CSC is an attractive partner for outsourced experts, which strengthens the available expertise. These experts make up a flexible pool of resources, allowing for temporary increases in personnel or access to specialist expertise. External experts are typically selected based on their CVs and interviews. The selection criteria include the persons' qualifications, competence and prior experience of similar tasks.</p> <p>Securing sufficient expertise is critical to CSC's operations..</p>	<p>External experts are equal members of CSC's service teams, which promotes their inclusion in the teams' work.</p> <p>Clear assignments and responsible supervision have a direct link to employees' well-being at work.</p>

Consumers and end-users

Consumers and end-users (ESRS S4) have been assessed to be material in CSC’s materiality assessment.

The identified impacts are related to CSC’s role as a company entrusted with special state assignment. In the strategy 2025–2030, the theme of Customer focus is cross-cutting in the strategy objectives:

- We provide the most impact generating HPC and data ecosystem in the world
- We are a pacesetter for responsible adoption of artificial intelligence
- We bridge silos to enhance customer success.

The first one of these objectives relates, in particular, to end-users of CSC’s data management and computing services. This report describes the targets, policies, measures and metrics related to them. In years to come, the reporting will be extended to cover end-users of services provided to higher education institutions and the public administration.

Material impacts, risks and opportunities related to consumers and end-users

Impacts	Risks and opportunities for CSC	Management
Information-related impacts for consumers and/or end-users		
Positive impacts on teachers’ ability to plan and deliver high-quality teaching as well as improved cooperation between educational institutions. <i>Sub-sub-topic: Access to (quality) information</i>		<i>Part of CSC’s special assignment</i> Centralised and easily accessible teaching materials, digital learning solutions and support for cooperation
Supporting regional equity relating to education and lifelong learning. <i>Sub-sub-topic: Access to (quality) information</i> <i>Also sub-topic: Social inclusion of consumers and/or end-users</i>		<i>Part of CSC’s special assignment</i> CSC’s services provide students with location-independent access to materials and study opportunities, for example through hybrid and distance learning solutions.
Access to reliable research and data <i>Sub-sub-topic: Access to (quality) information</i>		<i>CSC’s services enable the sharing of research and data.</i>
High level of information security, reliability and resilience <i>Sub-sub-topic: Privacy</i>		<i>Part of CSC’s special assignment</i> Offer of secure, reliable and socially relevant services
	Efficient data management and open data will bring savings and benefits to partners <i>Sub-sub-topic: Access to (quality) information</i>	
Social inclusion of consumers and/or end-users		
Positive impact on researchers’ and government organisation employees’ workflows <i>Sub-sub-topic: Access to products and services</i>		<i>Part of CSC’s special assignment</i> The efficient and intuitive digital services, infrastructures and tools provided by CSC improve the efficiency of data management, analysis and use, speed up research processes and facilitate cooperation, enabling more streamlined work for researchers and central government employees.
Digital preservation of cultural heritage content for the benefit of Finns <i>Sub-sub-topic: Access to products and services</i>		<i>Part of CSC’s special assignment</i> We provide Digital Preservation Service for Cultural Heritage for the Ministry of Education and Culture.
Streamlining the process has a positive impact on higher education applicants and decision-makers by promoting efficient process design and providing a digital platform for entrance exams.		<i>Part of CSC’s special assignment</i> CSC provides Metropolia’s Vallu entrance examination system for universities.

All material impacts, risks and opportunities related to consumers and end-users are realised in the downstream value chain. “Customer and service user centricity” is a cross-cutting theme of CSC’s strategy 2025–2030. Material impacts are positive.

In 2024, CSC's Board of Directors set the company performance targets related to data management and computing services' end-users. In particular, the targets were to provide good user experience for the academic and business users of the LUMI supercomputer, as well as to expand the use of sensitive data services. Objectives related to usability and utilisation rate are defined in agreements with customers.

The general terms of service use available on CSC's website specify by whom, how and for what purpose the services may be used. The general terms are complemented by data processing agreements and service descriptions as well as any terms of use and policies for an individual service. The policy on free use determines who and on what terms may use the services free of charge under an agreement between CSC and the Ministry of Education and Culture.

In all operations, CSC complies with the Act on the Control of Exports of Dual-Use Goods, provisions on sanctions and CSC's contractual commitments. CSC's internal export restriction policy provides instructions regarding practices and security processes arising from legislation and contractual obligations and describes how they are taken into consideration in CSC's internal processes.

CSC receives regular feedback on its services for science through the Scientific Customer Panel. The panel consists of end-users, and its feedback has an important effect on the way CSC's services are developed. The panel's tasks also include the scientific evaluation of applications with particularly large needs for computing and data management resources. The panel is convened four times a year.

The Department for Higher Education and Science Policy of the Ministry of Education and Culture and CSC sign an annual agreement, under which CSC will maintain, provide and develop services to meet the needs of research, education, culture and public administration. CSC reports openly on the delivery of data communication, data management and computing services as set out in this agreement and on the use of the services.

CSC monitors the usability and utilisation rate of its data management and computing services, the diversity and range of its user base, and user satisfaction. A user survey is conducted annually to assess satisfaction with CSC's services in general and the user experience and development needs of individual services.

Net Promoter Score of CSC's services

	2020	2021	2022	2023	2024
NPS	68	69	67	59	61
Avg.	9.0	9.0	8.9	8.7	8.8

A question addressed to users of data management and computing services in CSC's annual survey: "How likely would you recommend CSC's services to your colleagues?" Scale 0 (not at all likely)–10 (very likely). The Net Promoter Score (NPS) is calculated by subtracting the share of detractors (score of 0 to 6) from the share of promoters (score of 9 to 10). NPS index and the average of responses are presented in the table. The number of respondents has varied from 232 to 572.



Governance information

Business conduct

Impacts, risks and opportunities related to business conduct

Impacts	Risks and opportunities for CSC	Management
Corporate culture		
<p>Promoting research cooperation <i>Own operations, downstream value chain</i></p> <p>We promote and strengthen national and global research cooperation and its capabilities. CSC offers its services to researchers in Finland and their international partners.</p>		<p>International cooperation has a large role in CSC's current strategy and contributes to achieving its strategic objectives.</p>
	<p>Reputational risk in case of misconduct in the value chain <i>Entire value chain</i></p>	<p>CSC's procurements are made in compliance with the company's in-house procurement guidelines and the Act on Public Procurement and Concession Contracts (1397/2016).</p> <p>The procurement guidelines, ethical guidance of suppliers and Supplier Code of Conduct are being developed.</p>
	<p>Reputation based on reliability and transparency <i>Downstream value chain</i></p> <p>Reliability and transparency enable CSC's reputation as a leading, highly reliable partner, which can create new business opportunities.</p>	<p>CSC operates transparently, fairly and lawfully.</p>
Political influence and lobbying activities		
	<p>Stakeholder engagement and support for decision-making <i>Downstream value chain</i></p> <p>CSC provides impartial expert information to decision-makers. CSC supports actors of societal significance in decision-making through expert advice and expertise</p>	

Impact, risk and opportunity management

Business conduct policies and corporate culture

All employees, the Managing Director and members of the Board of Directors must comply with our Code of Conduct, which guides us towards responsible and ethical action. For more detailed information on the Code of Conduct, see the section titled "Policies related to own workforce" in the Own workforce chapter. CSC's internal business conduct policies serve as guidelines for all our operations.

The company's annual personnel survey also includes indicators for the development of our corporate culture. The survey results are presented to the Board of Directors, and CSC prepares an annual development plan on their basis to promote a healthy and ethical corporate culture.

CSC joined the UN Global Compact in 2024, and the company is committed to promoting the ten principles of corporate sustainability and the UN Sustainable Development Goals, which create a global framework for sustainability work.

CSC uses public funds to make significant procurements. The company puts all procurements out to tender in compliance with EU procedures for and the national act (1395/2016) on public procurement.

Auditors selected in an open tendering process audit CSC's accounts, financial statements and governance annually in compliance with statutes applicable to limited liability companies and issue an auditor's report on the company's operations. EU auditors regularly audit compliance with terms of financing decisions in European projects led by the company.

Whistleblower channel for reporting suspected misconduct

CSC has a Whistleblower system compliant with European Union Directive (EU 2019/1937) and the national Whistleblower Act (1171/2022) based on it. Suspected misconduct can be reported confidentially and anonymously if preferred. By the company's decision, CSC also follows the Whistleblower channel's principles in cases of harassment, threats or abuse of power.

To avoid any conflict of interest, the reports are received and preliminary processed by a third party. Only they can access the information given through

the reporting tool. Based on information provided through the reporting channel, they prepare an initial assessment and summary for internal processing by the company. Persons at CSC appointed to process reports have completed the necessary training with the help of an external consultant to ensure that the reports are processed following the statutory procedure. Two members of CSC's Board of Directors have also been trained to process reports in cases where the persons entrusted with this task within the company are disqualified due to a conflict of interest or other reasons. The reports are reported annually to CSC's Board of Directors.

CSC is committed to investigating all bona fide reports of non-compliance impartially and in confidence and takes any action deemed necessary on the basis of such an investigation. Processing of reports starts at the latest within seven days.

Information security policy

Security-related requirements, roles and principles at CSC are defined in the company's internal information security policy and the guidelines attached to it. The main principles are also described on CSC's website. The company's security management system covers all CSC operations. Ultimate responsibility for security at CSC rests with the top management. CSC's security

management system fulfils mandatory ISO 27001 requirements. The development of security is directed by the Security and Data Protection Steering Group based on customer and business needs. CSC's security rules are included in the personnel's induction training. Customers and subcontractors are informed of these requirements in terms of use, instructions and security and non-disclosure agreements.

AI policy

CSC has a common policy on the principles, recommendations and restrictions related to using generative AI tools. This policy addresses the risks associated with technologies and systems and provides guidance on ensuring their lawful and safe use. The policy applies to all use of generative AI tools, both in CSC's own systems and as a service outsourced to third parties. The AI policy has been approved by CSC's Management Group. The policy refers to the AI guideline of the Finnish Public Sector Digital Security Management Board (VAHTI). The policy addresses the requirements for processing personal data and copyrights associated with training generative AI models. The policy is an internal guideline of the company that is available to the personnel and has been discussed at an information session for the entire personnel.

Risk management policy

The goal of the risk management policy is to help CSC identify and assess risks, agree on measures to prevent them, and reduce their impact if they are realised. CSC's shareholders, the Board of Directors and the State's Ownership Steering Department have contributed to formulating the risk management policy. The Board of Directors reviews the risk management policy if necessary. The Board of Directors examines strategic risks and approves their residual risks annually. The owner of the risk management policy is the Deputy Managing Director.

The risk management process involves continuous work at all levels of the organisation. CSC's Management Group identifies, assesses and manages strategic risks and reports on them to the Board of Directors. While the company's risk management policy has a special focus on managing strategic risks, it also examines operational risks and risks of damage. The company's risk management policy is not currently a public document. In particular, the company discusses risk management issues with parties responsible for state ownership steering and national security.

The risk management policy does not address activities relating to contingency planning and

disaster recovery. Preparedness planning focuses on CSC's resilience in a crisis. Provisions on preparedness planning are laid down in the Emergency Powers Act (FINLEX 1080/1991). The disaster recovery plan complements the risk management programme by defining the procedures to be followed in case a risk is realised. These procedures are presented in separate business continuity plans.

CSC's risk management policy is based on the following standards and recommendations:

- Finnish Acts and Decrees concerning information security, occupational safety, and openness of government activities
- Government Resolution on the State Ownership Policy 23 May 2024
- Act on Information Management in Public Administration (906/2019)
- ISO 27001:2018 standard on Information security management systems
- Katakri 2020 Information Security Audit Tool for Authorities
- Assessment criteria for information security in public administration (Julkri): Recommendation and criteria
- ISO 31000:2018 Risk Management
- Corporate Sustainability Reporting Directive (CSRD).

Lobbying policy

Our mission is to support the operating conditions of Finnish education and research. To achieve this goal, we lend our expertise to supporting decision-making on digitalization, research and innovation policy at the national and European levels. To this end, we have meetings with decision-makers and other stakeholders, participate in commenting rounds and consultations, and take part in public debate, for example through CSC's communication channels. We also analyse the economic and societal impact of our operations and inform our stakeholders about it.

We intend to give visibility to the digitalisation-related needs of RDI, public administration, businesses and education, ensuring that their preconditions are addressed when regulation and society's structures are developed. We keep up with digitalization, research and innovation policy and contribute to discussions from the perspective of digital infrastructures.

CSC engages in open stakeholder cooperation to form a shared understanding of the societal impact of digital RDI tools and the needs relating to it through dialogue and sharing of expertise. The Director of EU Affairs, Policy and Business Development is responsible for CSC's societal dialogue with stakeholders.

CSC's stakeholder engagement is open and transparent. CSC reports on its activities to the Finnish Transparency Register and has registered with the EU Transparency Register.

Management of relationships with suppliers

CSC has a Supplier Code of Conduct that sets minimum sustainability requirements for suppliers and supply chains including also social and environmental requirements. The Supplier Code of Conduct is attached to the company's supply contracts. Separate guidelines for managing relationships with suppliers are also being developed and will be completed in 2025.

CSC has introduced guidelines on environmental criteria in procurements. While these guidelines currently only apply to some of the company's procurement categories, in the future they will cover all categories at CSC.

Metrics and targets

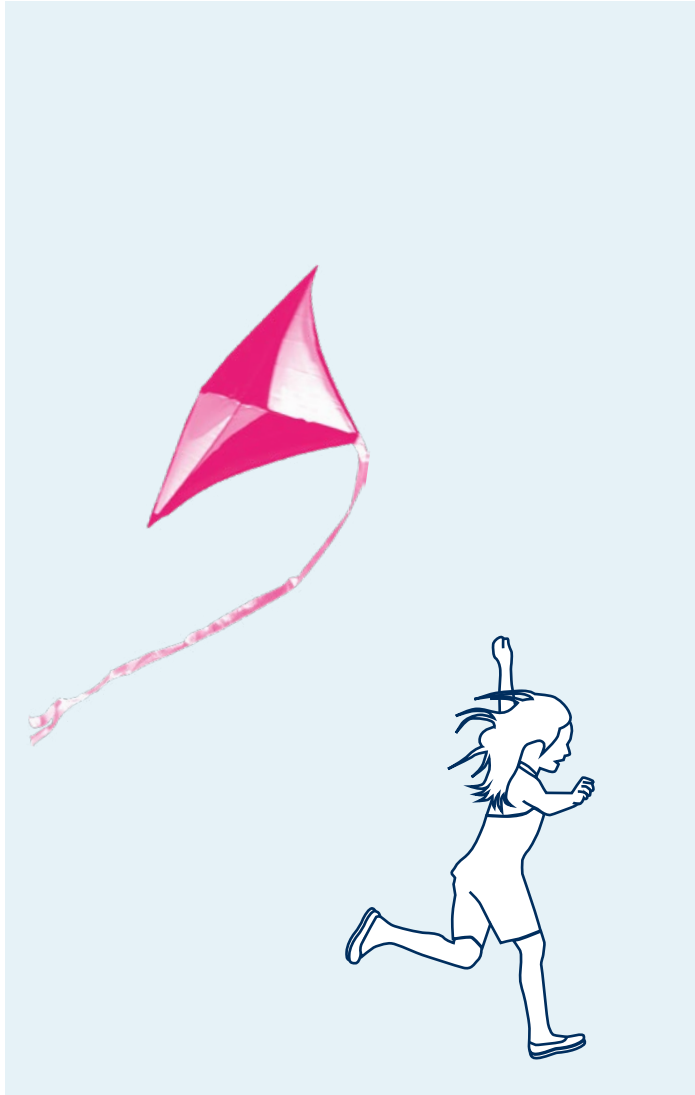
Political influence and lobbying activities

CSC's Director of EU Affairs, Policy and Business Development, who is a member of the Management Group, is responsible for societal dialogue with stakeholders and communications related to it in

cooperation with the Management Group and CSC's Communications unit.

In 2024, CSC participated in parliamentary hearings, national commenting rounds and EU consultations on initiatives essential for CSC, such as HPC development, development and application of new technologies including artificial intelligence, and digital capabilities. CSC also gave a statement to Parliament's Grand Committee on the Finnish Government's objectives in the EU. Key targets for CSC included continuity of high-performance computing and data management infrastructures as part of the national RDI framework, development of expertise through shared research infrastructures, and promoting human-centric AI and continuous learning. Legislative initiatives on these issues were regarded as having strategic significance for CSC and providing an opportunity for greater value creation in CSC's operations. In addition, CSC raised the issue of legislative obstacles to health sector RDI that pose a risk to the exploitation of research infrastructures in society.

CSC is registered with the Finnish Transparency Register (Business ID 0920632-0) and the EU Transparency Register (identification number 098297335667-27).



CSC's impact

CSC's sustainability comprises the company's possibilities of having a positive impact on society through its customers and service users. Helping research and education communities and our partners in the public and private sectors to succeed in their work is at the centre of CSC's operations and sustainability work.

Among other things, the data management and computing service ecosystem offered by CSC can be used for research aiming to promote the green transition and for other socially relevant research and innovation activities. CSC participates in major international collaboration projects on developing data management and computing services for climate and environmental research. CSC promotes the processing and reuse of data following the FAIR principles and ensures the digital preservation of research and cultural heritage data. CSC partners with higher education institutions in developing solutions for the digitalisation of learning.

This section of the Sustainability report contains examples of how CSC, together with its customers and partners, builds solutions for the digitalisation of research, education and innovation, boosting Finnish society's competitiveness.



We create value

OUR CAPITAL

Our strengths are extensive cooperation and sharing of expertise

- Services steered by customers at all lifecycle stages
- CSC operates the Digivision 2030 project office for 37 Finnish higher education institutions
- Through our expertise, we support our customers' cooperations
- Extensive international and national networks

61
EU-funded
RDI projects

66%
of the projects
include a Finnish
higher education
institution or
research institute

We enable research and education

- Digital operating environment for research, education and cultural heritage
- We were chosen to lead the consortium implementing the LUMI AI Factory
- We have expertise in data analytics and AI methods

Data management and
computing service ecosystem
that meets users' needs

Reliable and secure environments

- Critical infrastructures, high resilience
- We are involved in the activities of the National Emergency Supply Agency
- We regularly practice preparing for cyber disruptions

ISO/IEC 27001
certificate from 2013

Sustainable data centers

- Use of waste heat from Kajaani's low-carbon data center in district heating
- We aim to address sustainability over the entire life cycle of our procurements

CSC's carbon
footprint
(market-based)
10,016
tCO₂-eq.

Carbon handprint
(generated district
heating)
1,641
tCO₂-eq.

We are an attractive employer

- Over 600 experts in different fields
- Multicultural and international work community
- Women account for 37%

PeoplePower
Index
74

We are a non-profit company entrusted with special state assignment

- Owners: State of Finland 70%, higher education institutions 30%
- Open and transparent financial management and operations

Turnover
EUR
78.1
million

OUR PURPOSE

Together we build
world-class environments
for research, learning and
innovation



OUR SUSTAINABLE DEVELOPMENT GOALS



WE CREATE VALUE FOR OUR OWNERS, CUSTOMERS AND SOCIETY

Impact of research gets stronger

Solutions for data-intensive computing

- 13,200 users of data management and computing services
- Willingness to recommend CSC's services among national users 8.8/10

Using LUMI
supercomputer, we are
involved in developing
digital twins for the
Earth and biodiversity

We promote the
findability of research
produced in Finland
(Research.fi)

Sensitive data environments

- Services for end users and organisation customers
- For processing, publishing and authorising access to sensitive data

Our services enable
using science in
decision making

A one-euro
investment in our
high-performance
computing services
generated a €25–37
benefit to society
during the years
2018–2023

Digital transformation is advancing

Services that make daily life easier in research, learning and teaching

- 1.3 million Funet-Miitti meetings
- 72,000 applicants took entrance examinations using solutions provided for higher education institutions by CSC
- We develop the Library of Open Educational Resources for the Ministry of Education and Culture: 3,876 sets of e-learning resources

We provide services
based on data analytics
and data hubs for
decision making in
different sectors

Safeguarding cultural
heritage and research
data sets: 27 digital
preservation contracts

Together with our customers and partners,
we develop critical technologies and new
practices – examples include artificial
intelligence, data analytics and quantum
computing

Benefits from synergy are born

We promote service and data portability and interoperability

- National data management solutions (incl. Fairdata and DPS)
- Finnish University and Research Network Funet approx. 430,000 users
- Haka identification provides access to 473 services; 60.7 million logins, approx. 375,000 end users

We share our expertise

- Nearly 100 training events, feedback average 8.6/10
- Learning resources for data management and using computational methods and tools
- Updated website serves customers and users better

Services provided by the
international network
(incl. ELIXIR, EUDAT, EOSC)

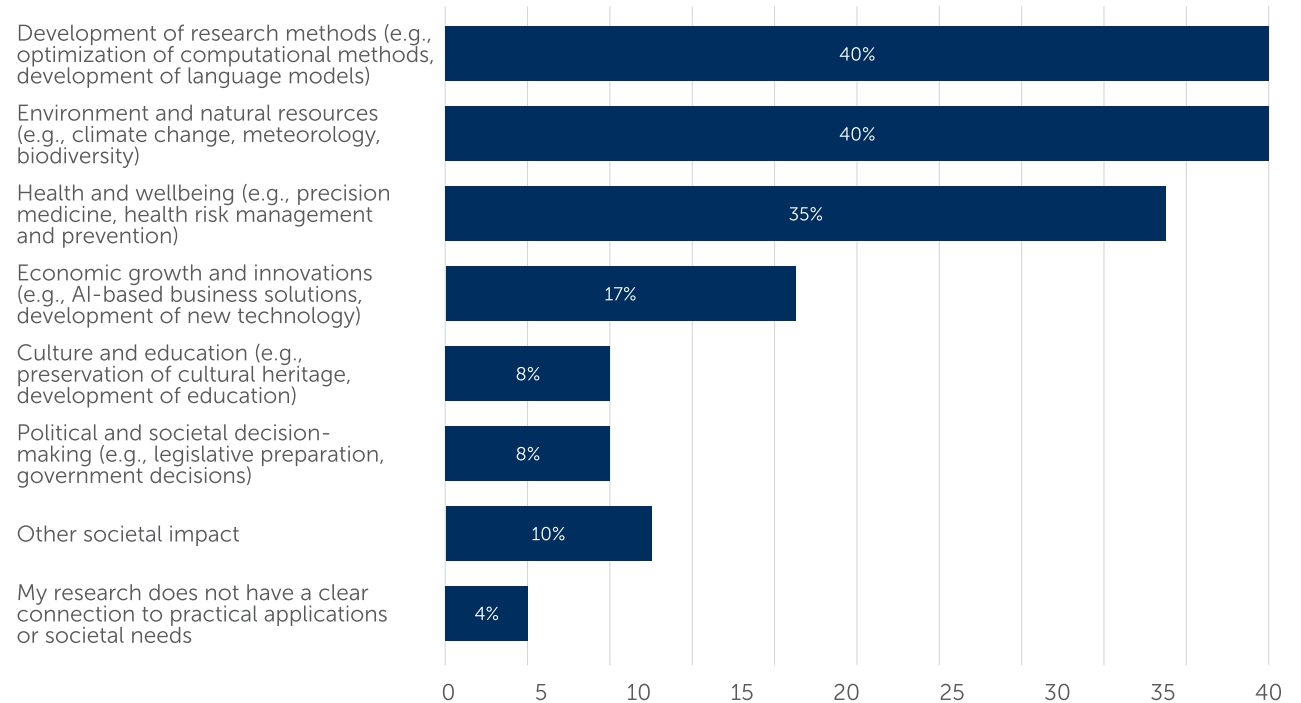
We offer secure
and interoperable
research environments
cost-effectively

The research supported by CSC's computing and data management services has a wide impact on society

Supercomputers are in a key role in solving scientific and industrial challenges, including climate change modelling, pharmaceutical research and the development of new materials. According to Taloustutkimus, investments in CSC's services have produced between EUR 25 and EUR 37 in social benefits for each euro invested in 2018–2023.

In November–December 2024, CSC conducted its annual user survey (N = 575). Of the respondents, 65% conducted basic academic research, 26% conducted applied research, and 20% worked in RDI.

Societal impact of research conducted by users of CSC's services



Those engaged in research or RDI were asked, "Where do the impacts of your research potentially appear?" This question was answered by 448 users, who selected 748 options in total. The option "I don't do research" (14 respondents) was removed from the image.

New investments to support research, education and innovation

The investment decisions made in 2024 will provide Finnish researchers and companies with increasingly versatile computing resources in the future.

A new EuroHPC supercomputer and the European Union's AI Factory will be placed in Finland. Finland heads the LUMI AI Factory consortium led by CSC in cooperation with the Czech Republic, Denmark, Estonia, Norway and Poland. The new LUMI supercomputer will be placed in CSC's data center in Kajaani, which also hosts LUMI supercomputer. The AI Factory will combine state-of-the-art computing power, datasets and expertise, enabling versatile use of AI methods in research and innovations and strengthening Finland's position as a pioneer in high-performance computing and artificial intelligence in Europe.

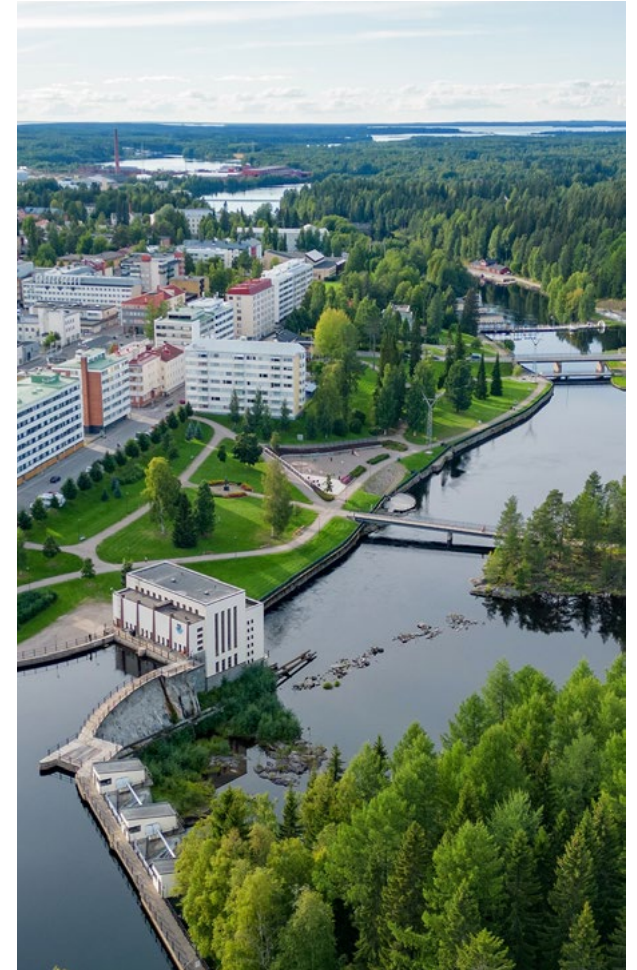
The CSC-led consortium will build a Federation Platform for EuroHPC JU, which will link all 14 EuroHPC JU supercomputers and quantum computers and provide users with smooth and secure access to these resources. The platform will

support single sign-on, uniform user experience and efficient use of computing power and services to meet research and business needs.

CSC is upgrading the national computing and data management environment. The environment acquired is designed and built specifically for the needs of scientists at Finnish universities of applied sciences, universities and research institutes. The new supercomputer, Roihu, will offer versatile computing power for AI use and research. Roihu will also provide an easy-to-use platform for teaching at higher education institutions and support students' access to high-performance computing, securing the expertise of future generations of researchers.

Read more:

- **Significant investment in science: Finland renews its national supercomputer**
- **A new pan-European supercomputer and a European Union AI Factory to be placed in Finland**
- **CSC-led consortium to deliver the EuroHPC Federation Platform**



Digital twins support decision-making

CSC is actively involved in projects that develop digital twins to promote informed decision-making and to improve processes and predictions. The data produced by digital twins can be used extensively in society, for example to support political decision-making. The information can be used in decision-making from the EU level to the local level and from municipal decision-makers to ordinary residents. Data can also be of significant benefit to companies whose business operations depend on biodiversity or are threatened by extreme weather events.

User orientation is important in projects related to digital twins. The projects involve collaboration with data users to ensure the usefulness of the result. In the future, language models can be used to promote openness and equality in science and to enable the use of data even without special expertise in using digital twins.

Digital twins solve major global challenges with unprecedented accuracy. The use of digital twins in environmental sciences and climate research is a growing trend, yet still very unique in biodiversity research.

CSC provides computing resources for projects, but also shares its strong expertise in high-performance computing by helping researchers shape their models to adapt to the LUMI environment. When participating in international projects, CSC aims to ensure that the Finnish scientific community benefits from them as much as possible. In addition to CSC, many projects involve other Finnish partners, which promotes Finnish research expertise and its visibility also internationally.

Read more:

- [Blog: Digital twins supporting decision-making](#)

Current issues in 2024

- In June, an event to launch the Destination Earth project was organised at CSC's Kajaani data center. The event also marked the publication of the Destination Earth service portal.
- The Biodiversity Digital Twin (BioDT) project launched the first prototypes of digital twins with a web-based user interface.
- The Climate Change Adaptation Digital Twin (Climate DT) project went on to its second phase, which will develop a user interface based on AI solutions.
- CSC was selected to lead the new TerraDT project that will complement the climate twin and improve the reliability of climate forecasts.

ELIXIR Finland: Ten years of building bridges for Finnish life sciences in Europe

Life science research, such as understanding rare diseases or studying the effects of climate change, requires enormous amounts of data and advanced tools to manage and analyze it. Hosted by CSC, **ELIXIR Finland** supports life science researchers in Finland by providing access to essential databases, software tools, training materials, and connecting them to supercomputing resources across Europe. It also serves as a link to European supercomputer resources for researchers. ELIXIR Finland is now celebrating a significant milestone: a decade of advancing life science research in Finland.

ELIXIR Finland's journey began in 2013, when the state of Finland signed the Consortium Agreement to join **ELIXIR**, the European infrastructure for life science data. Today, this membership enables Finnish researchers to collaborate with over 240 research organizations across 22 European countries.

In 10 years, ELIXIR Finland has driven significant progress and impact across life sciences. Some of the most important achievement include:

- Driving collaboration through participation in more than 50 EU projects
- Supporting Finnish researchers with the expertise of 160+ CSC specialists
- Securing EUR 13.7 million in international funding since 2019 to drive innovation in life sciences.

The impact of ELIXIR Finland can be seen through the rapid growth of health and biological science projects that use CSC's services. From only tens of projects to over 1,600 in ten years is an impressive start, and the growing field has potential to more than double the number of projects in the next five years.

Read more:

- **[ELIXIR Finland: 10 years of connecting Finnish life sciences to Europe](#)**



Ensuring sustainable preservation of data with digital preservation

CSC produces Finland's national digital preservation services (DPSs) provided by the Ministry of Education and Culture. The use of the digital preservation services has grown ever since the introduction of the Digital Preservation Service for Cultural Heritage in 2015 and the Fairdata DPS service in 2019. In 2024, these services were already used by 20 organisations in total. The services preserve materials related to cultural heritage, arts, linguistics and music, as well as data for research in natural and environmental sciences, social sciences and humanities.

Our cultural heritage data will serve as our society's memory and is part of the foundation of our civilisation. Securing the preservation of research datasets means that future generations of scientists can verify and repeat a specific study without having to collect the same data again. The digital preservation services produced by CSC preserve the integrity,

authenticity and usability of digital cultural heritage and research datasets for future generations until the end of their life cycle – for decades or even centuries.

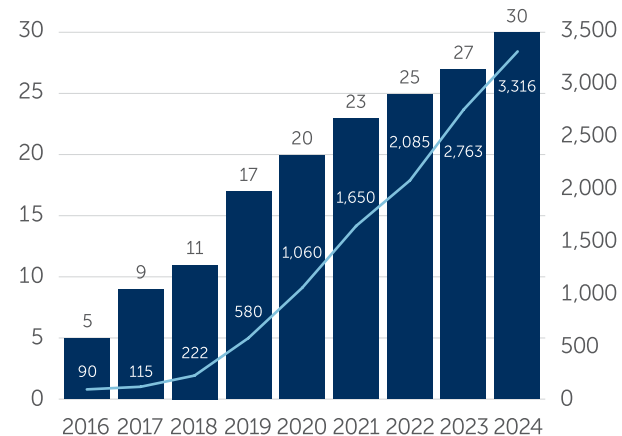
Read more:

- [CSC's digital preservation services see increasing use](#)

Development of the use of Digital Preservation Services

The number of contracts for the use of services

The amount of data (terabytes)



CSC awarded for its carbon footprint model for digital preservation

- The carbon footprint model developed for the digital preservation services was awarded as **best poster** at an international conference in 2024.
- There are also plans to develop the carbon handprint assessment to more precisely evaluate how centralised digital preservation services can reduce organisations' carbon footprint.

Finland's internationally unique exam system gains popularity

CSC's education technology services enable effective and reliable modes of interaction in Finnish higher education institutions' distance and hybrid teaching. The EXAM system has significantly improved students' daily lives and advanced the digitalisation of education and competence assessment. The number of exams taken in the system has increased by an average of 51% each year since 2016. The number of exam visits has increased by an average of 106% a year since their introduction in 2019.

The EXAM system is used in 28 Finnish higher education institutions, covering 88% of the students. CSC maintains and develops the system in collaboration with higher education institutions. The system originated in 2014 when ten higher education institutions decided to create a digital exam solution to meet the requirements of modern study environments, with CSC providing development support. Joint development has proven to be a highly cost-effective way to implement the system.

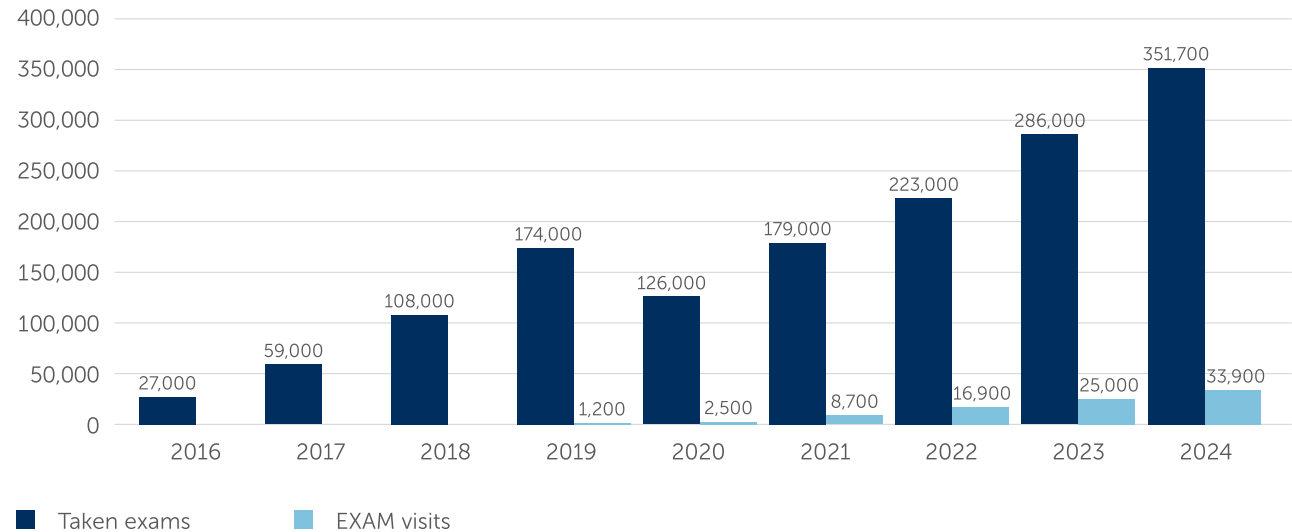
The service has increased the flexibility, efficiency and accessibility of studying. Students can choose the time and location of an exam to suit their needs, as well as take exams at institutions other than their home university. This is particularly useful for students who live far from their higher education institution. Exam visits between higher education institutions are unique internationally.

Electronic exams have accelerated the assessment of exams reducing teachers' workload and making it smoother for students to progress in their studies. The use of computers for exams makes it easier for students requiring special arrangements to participate. Real-time and recording camera surveillance enhances the security and academic integrity of the exams.

Read more:

- [Finland's internationally unique exam system gains popularity](#)

Exams taken using the EXAM service



Feedback from customers and service users drive the development of services and operations

CSC ultimately makes an impact on society through its customers and service users, which is why it is vital that CSC's services help customers do their work. Customer satisfaction is assessed through regular surveys, interviews and targeted user feedback covering everyone from service users to key contacts and the leadership in the customer organisations.

In 2024, CSC conducted an annual survey addressed to data management and computing service users to collect feedback on the services and support provided for their use. In 2024, a survey targeting contact persons for CSC's digital services supporting teaching, learning and research at higher education institutions and research institutes was conducted for the first time. As part of its strategy process, CSC commissioned T-Media's Reputation & Trust study in winter 2023–2024 targeting rectors of higher education institutions and directors of research institutes.

Users of data management and computing services are mostly satisfied with CSC's services

	2020	2021	2022	2023	2024
NPS	68	69	67	59	61
Avg.	9.0	9.0	8.9	8.7	8.8

"How likely would you recommend CSC's services to your colleagues?" Scale 0 (not at all likely)–10 (very likely). The Net Promoter Score (NPS) is calculated by subtracting the share of detractors (score of 0 to 6) from the share of promoters (score of 9 to 10). NPS index and the average of responses are presented in the table. The number of respondents has varied from 232 to 572.

"Thank you for the good service and resources – I could not do my research without them." – User feedback

"CSC is one of the key reasons why Finland is an excellent place to conduct computational research in." – User feedback

Contact persons for digital services supporting learning and research are satisfied with CSC and the collaboration

I find working together with CSC easy	How satisfied are you with CSC as an actor?
avg. 4.3	avg. 4.2

Averages (avg.) of responses in 2024 survey. Scale 1 to 5 (highest score 5). Number of respondents 165.

"CSC is an important actor and partner for several experts and, as a service provider, CSC has succeeded in providing solutions that serve the needs of the university." – Customer feedback

"I have never encountered a situation where I did not get help with my problem." – Customer feedback

Good results in CSC's Reputation & Trust survey for rectors of higher education institutions and directors of research institutes

Rectors of higher education institutions	Directors of research institutes
3.6	3.9

Averages of responses in 2024 survey. Scale 1 to 5 (highest score 5). The respondents comprised 29 rectors of higher education institutions and 5 directors of research institutes.



**ICT Solutions for
Brilliant Minds**



CSC – IT Center for Science Ltd.
P.O. Box 405 FI-02101 Espoo, Finland
Phone +358 9 457 200

www.csc.fi

Images: Adobe Stock, CSC ja LUMI