Annual report

—

2023

simula
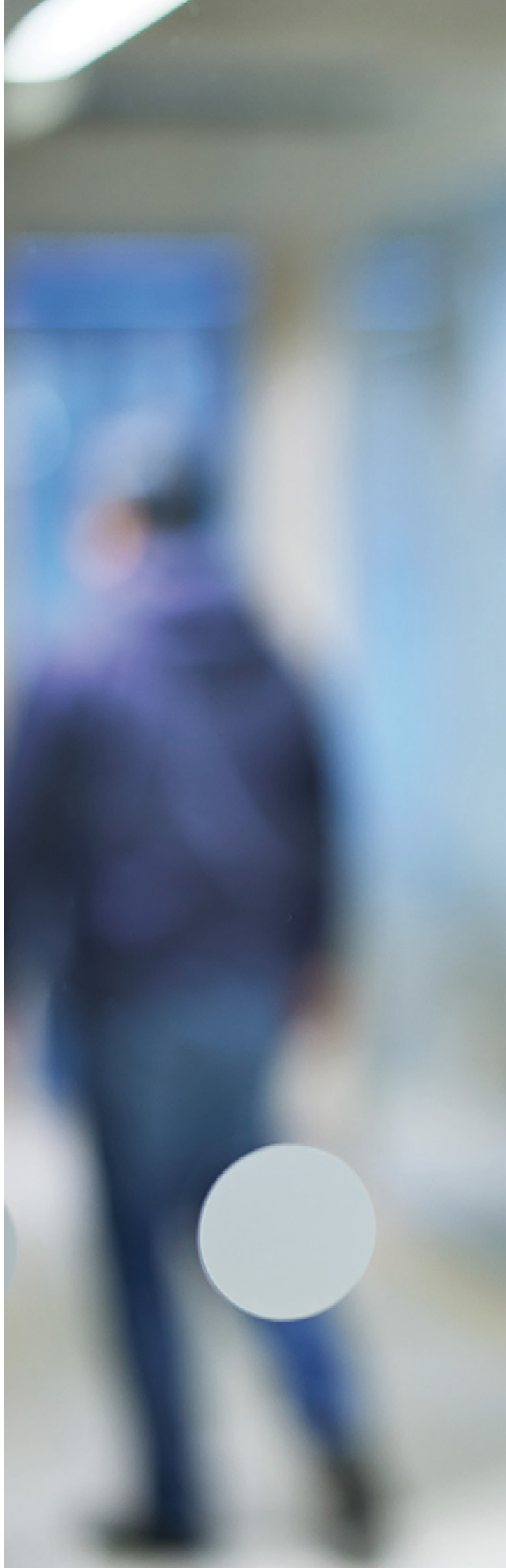
Simula
Annual report
2023

Managing director's report

2023 has been a year of many changes, for Simula and myself. I started as the new Managing Director of Simula in May 2023 and have had the pleasure of getting to know the organisation well throughout the year. Diving deep into the organization to learn more about the various research areas and projects has been both exciting and educational. Simula is an impressive organisation, which shows particularly strong results over time. It is with great joy and humility that I have taken over as Managing Director of Simula.

Lillian Røstad
Managing director

> " 2023 was truly the year in which artificial intelligence went from being a hot topic in the research world, to being the topic everyone was talking about.

While the scientific results are very good, the financial situation has been challenging for Simula in recent years, as for many others in the sector. Through 2023, it has therefore been necessary to implement cost-reducing measures. Among other things, Simula Learning has been discontinued and the Gründergarasjen is no longer part of Simula. Towards the end of 2023, we saw that the implemented measures had the necessary effect.

Although cost-cutting measures have been necessary, it is important to look ahead. Society faces several major challenges that Simula can help solve with our expertise and knowledge. The climate challenge is one of these where technology can play an important role. It was exciting to receive the news that the GASS project, in which Simula is a research partner, was funded by the Green Platform scheme of the Research Council. In the project, Simula will contribute by using artificial intelligence to optimize the travel route for ships, thereby reducing emissions. Through 2023, Simula has been very successful with EU applications and has started several new projects where the use of artificial intelligence (AI) is a central theme.

2023 was truly the year in which artificial intelligence went from being a hot topic in the research world, to being the topic everyone was talking about. The launch of ChatGPT in late 2022 made generative AI accessible to everyone. Simula has worked with machine learning and artificial intelligence for several years, from the development of fundamental models to various areas of application. The projects we are involved in are too numerous to mention by name here, but Simula Consulting contributed its expertise in AI to a particularly gratifying project to develop a fish trap to sort out invasive humpback salmon. This project has received international attention and has been nominated for several prizes in 2023.

Competence is indeed one of society's big challenges. How do we ensure that Norway has sufficient competence to tackle challenges and build the sustainable society of the future? In 2023, Simula entered into an extended cooperation agreement with Oslo Metropolitan University (OsloMet). We have had a long-standing and close collaboration with OsloMet, through the company we own together, SimulaMet. The purpose of the new collaboration agreement is to facilitate an even broader collaboration, and together contribute to the education of highly competent candidates in the field of ICT in Norway.

It is in challenging times that one sees what an organisation is made of, and it is inspiring to see how Simula as a whole mobilizes and works closely with partners in academia and industry. It makes me proud and confident that Simula will continue to succeed.

Report of the board of directors 2023

Simula's mission is to conduct fundamental long-term research in selected aspects of information and communication technologies, thereby contributing to lasting innovation in the business sector.

Administration and Organisation

Simula Research Laboratory (SRL) is organised as a limited company with the Ministry of Education and Research as its owner. The company combines academic traditions with management models known from the business sector. In 2023, SRL had four subsidiaries consolidated into the group accounts. Simula Innovation AS is a wholly-owned subsidiary and manages Simula's investment portfolio. Simula UiB AS is owned by SRL (51%) and the University of Bergen (49%). Simula Metropolitan Center for Digital Engineering AS (SimulaMet) is owned by SRL (51%) and Oslo Metropolitan University (49%). Simula Consulting AS is 100% owned by SRL.

Simula Learning AS was, as a consequence of the strained financial situation, dissolved in spring 2023 and is not consolidated in the group accounts. In May 2023, Simula appointed a new CEO.

The parent company and its subsidiaries collaborate closely. Most of the companies are located in downtown Oslo (Tullinløkka and Bislett). Simula UiB is located in Bergen.

Activities

Simula conducts basic and long-term research in networks and communication systems, scientific computing, software engineering, machine intelligence and cybersecurity. The research focuses on core challenges that combine technological development with utility value for the industry, business, and society at large.

Throughout the year, Simula has particularly fo-cused on developing its research activities in artificial intelligence, the use of technology for improved health, and how to achieve a safer and more reliable digital society. As activities in 2022 were affected by significant changes in external conditions both nationally and internationally, Simula has implemented substantial measures in 2023 to adapt to changes in the framework conditions. We have reduced costs and focused on securing future revenues to achieve sustainable operations, including preparing for the announcement of the "AI Billion" that the government has allocated for research on artificial intelligence. Significant effort has also been put into developing activities aimed at contract research and Simula Consulting. Throughout 2023, Simula has been highly successful with EU applications and has started several new projects where the use of artificial intelligence is a recurring theme.

In 2023, 106 articles were published in international journals, 1 book, 9 book chapters, and 117 peer-reviewed conference papers.

During 2023, Simula's scientific staff supervised 13 candidates to completion of their PhDs and 35 students to completion of their master's degrees. From 2001 to 2023, a total of 182 candidates were guided to PhD completion and 563 students were supervised to master's degree completion at Simula. Additionally, Simula employed 25 students in various project-based internships during the spring and summer of 2023.

The University of Oslo, the University of Bergen, and Oslo Metropolitan University are the main academic collaboration partners and degree-granting institutions for PhD students employed at Simula. In addition, Simula has guided candidates to completion of degrees at Kristiania University College, the Norwegian University of Life Sciences (NMBU), the Norwegian University of Science and Technology (NTNU), the University of Stavanger, UiT The Arctic University of Norway, as well as Technische Universität Berlin and Technische Universität Darmstadt in Germany.

By the end of 2023, Simula Innovation was a co-owner in 37 start-up companies with a total of 420 employees.

Personnel and Health, Safety & Environment

As of the end of 2023, Simula Research Laboratory had a total of 117 employees, of whom 104 were

full-time and 13 were part-time. Of these, 80 were men and 37 were women.

Simula will continue its focus on long-term health, safety, and environment (HSE) work. The sickness absence rate in 2023 was 1.9% for the group and 1.8% for SRL. The group has actively worked to keep the sickness absence rate low, and this effort will continue in the future. This includes close monitoring of both the physical work environment and mental health. No work-related illnesses or accidents were reported during the year.

IT security and training procedures were a key focus in 2023. Employees have been trained in security routines. Simula has also undertaken extensive mapping work to ensure compliance with procedures and directives from the law on the export of knowledge.

HSE is reported at each board meeting, including regular updates about employee welfare, staff surveys, and implemented measures.

Simula's operations do not pollute the external environment beyond what is typical for an office business. Simula is in the process of developing a climate account to highlight Simula's actual climate footprint.

Equal Opportunities and Integration
The Group works to promote the purpose of the Equity and Anti-Discrimination Act by promoting gender equality, ensuring equal opportunities and rights and preventing discrimination in the business. As of the financial year 2020, Norwegian employers and public authorities have a duty to work with equality and non-discrimination and account for this work and the actual situation. The statement is published in Simula's annual report and can be found in the section, "Gender equality report, social responsibility and working environment".

The Simula Group represents 46 different nations, and 54% of the Group's employees come from countries outside Norway. Simula offers Norwegian courses, social events, and support related to visas, taxes, housing, and other administrative matters.

By the end of 2023, the proportion of women researchers - meaning the average of PhD students, postdoctoral fellows and researchers in permanent positions - was 25%. The proportion of women re-searchers in permanent positions in particular was 18%, and among PhD students and postdoctoral fellows, the proportion of women was 30%. In order to reach the target of 40% female employees by 2028, Simula will continue to focus on measures for both the recruitment of new, talented female candidates and the development and adaptation of working situations for qualified women who are already employed at Simula.

Ethics
Simula follows the ethical guidelines as described in "The Simula Code of Ethics" document. This also addresses research ethics, based on the fact that Simula is an institution dedicated to truth and the pursuit of truth. Simula's reputation is dependent on others being able to trust that research results are correct and have been produced in a verifiable and ethically responsible manner. In the event of questions regarding research ethics, Simula's researchers are required to adhere to the guidelines set by the National Committee for Research Ethics in Science and Technology (NENT). In addition, all employees must follow Simula's internal guidelines for scientific publishing, which are based on the Vancouver Convention.

Financial Risk
Simula is exposed to financial risk related to the group's equity investments. The value of the equity portfolio is continuously assessed, and an accounting write-down is made if there is significant uncertainty related to the value of the investments. There is also financial risk associated with surplus liquidity placed in funds and some currency risk associated with the EU projects that Simula participates in. Overall, the board assesses the financial risk as low. Credit risk and liquidity risk are considered low, and the board concludes that the risk to the business is generally low.

Financial Performance
The group's economy weakened in 2022 due to changes in external conditions and a failure in the acquisition of projects financed by the Research Council of Norway (RCN). In 2023, Simula took several measures to reverse the negative trend. Cost-reducing measures have been introduced, with significant focus on securing future revenues. This resulted in the group's annual results being better than budgeted. In 2023, the group had revenues of 295.6 million Norwegian kroner, an increase of 1% from the previous year. Budgeted revenues for the group were 313.8 million. The operating result was

a deficit of 23.2 million kroner, against a budgeted operating deficit of 28.8 million. The annual result is a deficit of 18.2 million, against a budgeted annual deficit of 24.8 million. The total cash flow in the group was −39.6 million.

Operating income for Simula Research Laboratory AS was 183.2 million kroner. External project financing totalled 113.7 million kroner. The year's result was a deficit of 5.6 million kroner, which is covered by other equity. The equity in Simula Research Laboratory AS amounts to 72.8 million kroner, which represents an equity ratio of 53% of total capital.

Operating income for Simula Innovation AS was 0.3 million kroner, net financial items were negative by 3.2 million kroner, and the annual result for 2023 was a deficit of 7.6 million kroner. The equity was 49.7 million, giving an equity ratio of 81%.

Operating income for Simula UiB AS was 31.2 million kroner, and the annual result was a deficit of 3.5 million kroner in 2023. The equity was 10 million, giving an equity ratio of 60%.

Operating income for Simula Metropolitan Center for Digital Engineering AS was 76.7 million kroner, and the annual result was a deficit of 2.5 million kroner in 2023. The equity was 19.4 million, giving an equity ratio of 49%.

Operating income for Simula Consulting AS was 24.3 million kroner, and the annual result was 1.3 million kroner in 2023. The equity was 2.4 million, giving an equity ratio of 25%.

Future Development
The board believes that the annual accounts provide a correct picture of Simula Research Laboratory AS and the group. The equity in the individual companies and in the group is sound even though most companies had an economic deficit in 2023.

At the end of 2023, Simula is active in the management of or as a research partner in 12 EU-funded projects. Simula generally has a good project intake from the EU, but in recent years we have experienced a significant decline in NFR-funded projects.

In accordance with the Accounting Act § 3-3a, it is confirmed that the assumptions about continued operation are present, and this has been assumed in the preparation of the annual accounts.

Board Work
The board is informed that Simula has signed directors' liability insurance limited upwards to 40 million kroner. Information on the main features of the insurance coverage has been provided to all board members.

Oslo, 6 March 2024

Ingvild R. Myhre
Chair of the Board

Ingolf Søreide
Board Member

Pinar Heggernes
Board Member

Lillian Røstad
Managing Director

Hilde B. Nordvik
Board Member

Ada Johanne Ellingsrud
Board Member

Mats A. Lundqvist
Board Member

Maria Korkunc
Board Member

Lasse Olsen
Board Member

Are Magnus Bruaset
Board Member

Income statement 2023

	SRL			Note	SRL Group	
2022	**2023**			**Note**	**2023**	**2022**
		OPERATING REVENUES				
185 238 305	183 156 018	Operating revenues		2	295 665 861	291 891 747
185 238 305	**183 156 018**	**TOTAL OPERATING REVENUES**			**295 665 861**	**291 891 747**
		OPERATING EXPENSES				
119 977 686	122 919 948	Salary and social costs		3,40	220 281 302	214 268 649
1 691 794	2 023 800	Deprication		5	3 083 694	2 715 171
68 159 286	68 859 286	Other operating expenses		6	95 522 454	94 306 718
189 828 765	**193 803 034**	**TOTAL OPERATING EXPENSES**			**318 887 450**	**311 290 538**
−4 590 460	**−10 647 016**	**OPERATING PROFIT**			**−23 221 589**	**−19 398 790**
		FINANCIAL ITEMS				
428 239	1 891 580	Other interest income			2 134 016	593 833
1 079 930	3 302 930	Other financial income			9 554 751	3 381 275
0	0	Write-down of shares			2 958 123	5 541 209
22 604	13 860	Other interest expenses			25 018	50 013
2 171 518	166 213	Other financial expenses			3 669 348	7 125 500
−685 953	**5 014 436**	**NET FINANCIAL ITEMS**			**5 036 279**	**−8 741 614**
−5 276 412	**−5 632 579**	**PROFIT BEFORE TAX**			**−18 185 309**	**−28 140 404**
94 681	0	Tax		7	0	94 681
−5 371 093	**−5 632 579**	**NET PROFIT**			**−18 185 309**	**−28 235 085**
0	0	Minority interest			−2 950 027	−5 118 716
−5 371 093	−5 632 579	Minority interest			−15 235 282	−23 116 369
		ALLOCATION OF THE YEAR'S NET PROFIT				
−5 371 093	−5 632 579	Transferred to othe equity				
−5 371 093	**−5 632 579**	**TOTAL ALLOCATED**				

Balance sheet - assets 2023

SRL				SRL Group	
2022	**2023**	ASSETS	Note	**2023**	**2022**
		FIXED ASSETS			
		Intangible assets			
1 113 535	961 841	Website	5	961 841	1 113 535
1 113 535	**961 841**	**Total Intangible assets**		**961 841**	**1 113 535**
		Tangible fixed assets			
10 382 264	8 872 891	Furniture, fixtures, equipment	5	10 913 653	12 214 695
10 382 264	**8 872 891**	**Total tangible fixed assets**		**10 913 653**	**12 214 695**
		Financial Fixed Assets			
43 305 709	37 332 708	Investments in subsisidiaries	8	1 316 075	1 316 075
0	0	Investments in shares	9	49 276 341	56 450 286
62 012	2 150	Other		2 552	175 661
43 367 721	**37 334 858**	**Total financial fixed assets**		**50 594 968**	**57 942 022**
54 863 519	**47 169 590**	**TOTAL FIXED ASSETS**		**62 470 462**	**71 270 252**
		CURRENT ASSETS			
		Receivables			
10 355 356	11 430 194	Account receivables		24 173 069	18 892 877
31 597 042	34 669 799	Other receiveables		45 424 272	43 481 641
41 952 398	**46 099 993**	**TOTAL RECEIVABLES**		**69 597 341**	**62 374 517**
		INVESTMENTS			
27 083 251	17 148 848	Market-based funds	10	44 505 075	55 231 038
0	0	Market-based bonds	10	1 718 929	1 635 430
27 083 251	**17 148 848**	**Total investments**		**46 224 004**	**56 866 468**
32 418 191	**25 834 829**	**Bank deposits**	11	**44 871 616**	**73 806 730**
101 453 840	**89 083 670**	**TOTAL CURRENT ASSETS**		**160 692 961**	**193 047 715**
156 317 358	**136 253 260**	**TOTAL ASSETS**		**223 163 423**	**264 317 967**

Balance sheet - equity and liabilities 2023

SRL			Note	SRL Group	
2022	2023			2023	2022
		EQUITIES AND LIABILITIES			
		EQUITY			
		Paid-in equity			
1 200 000	1 200 000	Share capital	12,13	1 200 000	1 200 000
1 200 000	**1 200 000**	**TOTAL PAID-IN EQUITY**		**1 200 000**	**1 200 000**
		RETAINED EARNINGS			
77 248 524	71 615 945	Other equity	13	102 705 749	119 519 210
0	0	Minority interests	13	14 457 741	18 176 530
77 248 524	**71 615 945**	**Total retained equity**		**117 163 490**	**137 695 740**
78 448 524	**72 815 945**	**TOTAL EQUITY**		**118 363 490**	**138 895 740**
		LIABILITIES			
		Other long term debt			
0	0	Other long term debt	15	11 007 023	12 001 485
0	**0**	**TOTAL LONG TERM DEBT**		**11 007 023**	**12 001 485**
		CURRENT LIABILITIES			
15 843 000	7 457 983	Accounts payable		7 600 292	19 237 168
8 091 822	7 758 194	Public duties payable		19 535 448	15 814 793
53 934 013	48 221 138	Other current liabilities	16	66 657 170	78 368 780
77 868 834	**63 437 315**	**Total current liabilities**		**93 792 910**	**113 420 742**
77 868 834	**63 437 315**	**SUM TOTAL LIABILITIES**		**104 799 933**	**125 422 227**
156 317 358	**136 253 260**	**TOTAL EQUITY AND LIABILITIES**		**223 163 423**	**264 317 967**

Notes to the financial statements 2023

Note 1 accounting priciples

The financial statement has been prepared in accordance with the regulations of the Norwegian Accounting Act of 1998 and generally accepted accounting principles

General rule for valuation and classification of assets and liabilities
Assets intended for permanent ownership or long-term use have been classified as fixed assets. Other assets have been classified as current assets. Receivables to be repaid within one year are classified as current assets. Similar criteria have been applied to the classification of current and long-term liabilities.

Fixed assets are valued at acquisition cost but written down to fair value for any impairments that are not expected to be temporary. Fixed assets with a limited economic life are depreciated over the useful life of the asset. Long-term liabilities are recognised at nominal value in the balance sheet on the date they are incurred. Long-term liabilities are not revalued to fair value as a result of changes in interest rates.

Current assets are valued at the lower of cost and fair value. Current liabilities are recognised at nominal value in the balance sheet on the date they are incurred. Current liabilities are not appreciated to fair value as a result of changes in interest rates.

Certain items are valued according to other principles, as explained below.

Foreign Currency transactions
Assets and liabilities in foreign currency are converted at the exchange-rates on the balance sheet reporting date.

Tangible fixed assets
Tangible fixed assets are depreciated over the expected economic life of the asset. As a general rule, the depreciation is distributed linearly over the assumed economic life of the asset.

Pensions
Pension obligations are financed through operations. The pension premium is considered a pension cost and is classified together with salary costs. All employees are included in the company's pension scheme.

Receivables
Accounts receivables and other receivables are recognised at nominal value less provisions for anticipated losses from bad debt. Provisions for losses are based on an individual assessment of each receivable. In addition, if necessary, a general provision is made to cover expected losses on other receivables.

Tax
The company is liable for tax on the proportion of turnover that falls under commissioned research.

Principles for revenue recognition
Revenues are recognised when delivery has taken place.

Advances on grants and subsidies are entered as Other short-term liabilities and are entered as income in line with the delivery of the services.

The Group
The consolidated financial statement comprises the parent company Simula Research Laboratory AS (SRL) and the subsidiaries Simula Innovation (SI), Simula Metropolitan Center for Digital Engineering AS (SimulaMet), Simula Consulting AS and Simula UiB. Simula Research Incorporated is owned with 100%, but is not included in the consolidated financial statements. The consolidated financial statements are prepared as if the Group were one economic entity. Transactions and balances between group companies are eliminated. The subsidiary Simula Learning AS was liquidated in 2023 and is not part of the consolidated accounts.

Cash flow statement
The cash flow statement has been prepared using the indirect method.

Note 2 Operating renevue

	SRL		SRL Group	
	2023	**2022**	**2023**	**2022**
Research funding	64 775 000	61 975 000	75 208 000	72 297 000
Subsidies from the RCN, EU, etc.	110 804 451	114 468 896	176 696 435	208 357 623
Other income	7 576 567	8 794 409	43 761 426	11 237 124
Total	**183 156 018**	**185 238 305**	**295 665 861**	**291 891 747**

The projects generally have a duration of between one and five years. All income is mainly earned in Norway.

Note 3 Payroll costs, number of employees, remunerations, employee loans and auditor's fees

	SRL		SRL Group	
Salary and social costs	**2023**	**2022**	**2023**	**2022**
Salary	91 674 392	89 915 985	169 188 240	165 262 074
Social security	14 553 509	13 422 483	27 284 516	24 981 815
Pension costs	9 081 687	8 845 906	17 083 180	16 615 863
Other benefits	5 129 464	5 661 339	6 725 366	7 408 897
Personnel costs re-invoiced group	2 480 896	2 131 973	-	-
Total	**122 919 948**	**119 977 686**	**220 281 302**	**214 268 649**
Number of full-time equivalents	115	109	205	201

Remuneration paid to senior company officers	**Managing director**	**Board of directors**
Salary	1 865 739	616 900
Pension expenses	212 184	-
Other remuneration	9 360	-
Total remuneration	**2 087 283**	**616 900**

Stated benefits for the general manager apply to the existing general manager who was employed until 30 April 2023 and the new general manager who was employed on 1 May 2023.

No loans or guarantees have been granted to the general manager, chairman of the board or other related parties. No loans or guarantees amount to more than 5% of the company's share capital.

Auditor
The auditor's fees break down as follows:

Parent company:	**2023**	**2022**	**Subsidiaries:**	**2023**	**2022**
Statutory auditing services	148 000	128 000	Statutory auditing services	230 300	212 300
Attestation assignment (project audit)	61 700	18 400	Attestation assignment (project audit)	-	11 800
Andre tjenester	83 300	63 600	Other services	98 800	57 400
Total auditor's fees	**293 000**	**210 000**	**Total auditor's fees**	**329 100**	**281 500**

The auditor's fee is stated exclusive of VAT

Note 4 Pension

The Group has a duty to maintain an occupational pension scheme in accordance with the Mandatory Occupational Pension Schemes Act. The company's pension schemes fulfil the requirements of this legislation.

Note 5 Fixed assets

SRL

Fixed assets	Website	Computer	Furnishings, equipment, etc.	Total fixed
Acquisition costs as of 01.01	1 319 304	5 645 480	7 257 757	14 222 541
Additions	144 000	218 734	-	362 734
Disposals	-	-	-	-
Acquisition costs as of 31.12	**1 463 304**	**5 864 214**	**7 257 757**	**14 585 275**
Cumulative depreciation as of 31.12	-501 463	-3 081 751	-1 167 329	-4 750 543
Disposals	-	-	-	-
Book value as of 31.12	961 841	2 782 463	6 090 428	9 834 732
Year's depreciation	**295 694**	**1 103 812**	**624 294**	**2 023 800**

Simula Group

Fixed assets	Website	Computer equipment, etc.	Furnishings,	Total fixed
Acquisition costs as of 01.01	1 319 304	5 691 587	10 387 535	17 398 426
Additionsr	144 000	1 395 908	91 050	1 630 958
Avgang solgte/avskrevne driftsmidler	-	-	-	-
Acquisition costs as of 31.12	**1 463 304**	**7 087 495**	**10 478 585**	**19 029 384**
Cumulative depreciation as of 31.12	-501 463	-3 047 028	-3 605 399	-7 153 890
Disposals	-	-	-	-
Book value as of 31.12	961 841	4 040 467	6 873 186	11 875 494
Year's depreciation	**295 694**	**1 463 422**	**1 324 578**	**3 083 694**

The economic life of operating assets is calculated as:
* Computer equipment   2-5 years
* Furniture, fixtures and equipment   3-15 years

Note 6 Rental and leasing contracts

The company has entered into two leasing agreements concerning photocopiers and coffee machines. This year's cost is NOK 254 068.

The company relocated to Kristian Augusts gate 23 in downtown Oslo in 2021. The lease is for 15 years.

Note 7 Tax

Simula Research Laboratory AS is liable to tax for the part of the business that concerns commissioned research. The subsidiaries Simula Innovation AS and Simula Consulting AS are liable for tax. The subsidiaries Simula Metropolitan Center for Digital Engineering AS and Simula UiB AS are liable to tax for income from commissioned research.

	SRL		Simula Group	
Taxation for the year consists of:	**2023**	**2022**	**2023**	**2022**
Tax payable	-	-	-	-
Change in deferred tax	-	94 681	-	94 681
Total tax expense	**-**	**94 681**	**-**	**94 681**
Tax payable for the year is calculated as follows:				
Profit before tax*	-5 632 579	-5 276 412	-17 642 420	-25 140 404
Permanent differences	5 938 024	6 374 446	14 578 369	18 631 638
Change in temporary differences	-631 307	-1 315 058	-780 441	-1 166 703
Deficit to carry forward	-	-	-	-
Deficits and differences that are not included in the basis	-	-	-	-
Basis for taxable contract research	-325 862	-217 024	-3 844 492	-7 675 469
Taxable income	**-325 862**	**-217 024**	**-3 844 492**	**-7 675 469**
Summary of temporary differences:				
Other differences	-1 650 000	-1 650 000	-2 111 326	-2 207 808
Fixed assets	-707 310	-1 338 617	-1 222 396	-1 906 355
Loss carryforward	-	-217 024	-13 351 247	-13 295 833
Write-down of shares	-	-	-	-1 201 610
Total basis for deferred tax asset	-2 357 310	-3 205 641	-16 684 969	-18 611 606
Deferred tax liability/asset	-518 608	-705 241	-3 670 693	-4 094 553
Unrecognised deferred tax liability	-518 608	-705 241	-3 670 693	-4 094 553
Recognized tax liability	**-**	**-**	**-**	**-**
Tax payable in the balance sheet:				
Tax payable on the profit of the year	-119 435	-	363 868	234 462
Tax payable on group contributions paid	119 435	-	-363 868	-234 462
Total tax payable in the balance sheet	**-**	**-**	**-**	**-**

In 2023, the company will have had income from commissioned research corresponding to 4.1% of turnover.
* The line "Profit before tax expense" contains only profit from taxable entities.

Note 8 Subsidiaries, associates, etc.

	Acquired	Office	Country	Share
Simula Innovation AS	4.5.04	Oslo	Norge	100 %
Simula UIB AS	17.12.15	Bergen	Norge	51 %
Simula Metropolitan CDE AS	21.11.17	Oslo	Norge	51 %
Simula Consulting AS	11.7.19	Oslo	Norge	100 %

	Result		Equity 31.12
Simula Innovation AS	-7 643 321		49 660 777
Simula UIB AS	-3 515 723		10 069 432
Simula Metropolitan Center for Digital Engineering AS	-2 504 742		19 436 161
Simula Consulting AS	1 290 077		2 397 809

Non-consolidated subsidiaries:	Cost	Result	Equity 31.12
Simula Research Laboratory Inc., owned 100 % by SRL	1 316 075	0	USD 150 000

Note 9 Securities and shares in other enterprises, etc.

Other share investments	Quantity	Face value per share	Shareholding	Cost price
Adline Professional AS	11 696	1	7.62 %	2 275 458
Augere Medical AS	29 930	1	11.94 %	4 058 930
Celerway Communications AS	14 664	1	14.71 %	3 008 475
Coupler Holding AS	882	1	2.94 %	1 000 000
Edgefolio UK Limited	5 771	GBP 1	5.19 %	1 451 243
Entire Body AS	111 111	15	9.8 %	3 000 025
EYR Medical AS	22 744	0.3	3.04 %	3 033 440
Fabriscale Technologies AS	19 983	1	26.6 %	4 010 410
Folkeinvest AS	4 131	1,4	0.33 %	499 790
Forzasys AS	33 000	0,34	30 %	1 528 065
Future Ready AS	1 875	1	3.44 %	500 000
Futureworks AS	5 875	1	16.3 %	1 700 410
Imerso AS	891	10	8.17 %	1 615 925
Insilicomed Inc, USA	131 945	USD 1.8		1 220 755
Investory Onlineplattform GmbH	3 337	EUR 1	4.06 %	1 104 440
KVM AS	1 137	3	11.4 %	3 412
LeadX AS	6 690 476	0.001	12.67 %	2 250 000
Leid AS	8 737	1	7.36 %	1 500 000
N-ABEL AS	15 675	1	32.8 %	2 090 000
Organos Inc.	510 000		10 %	22 048
Qbee AS	934	1	15.43 %	2 998 618
Quine AS	5 809	1	9.002 %	700 267
Retailhub AS	2 250	1	6 %	1 499 985
Slipper AS	269 505	0.01	5.98 %	747 070
Spoortz Holding AS	153 922	0,1	1.02 %	1 059 288
Storeshop AS	67 286	1.75	9.06 %	1 849 760
Testify AS	900	1	30 %	1 427 117
Tipio AS	90 498	0,1	6.26 %	1 000 000
Tundra Drone AS	1 745	1	1.28 %	249 946
Unloc AS	331 700	0.01	3.29 %	2 997 349
Vendu AS	2 027 333	0.01	20.98 %	3 200 000
Völur NOR Holdco AS	320 000	0.01	5.64 %	1 000 000
Write-down of shares				16 332 996
Total investment in associations				**38 269 231**

Pre-seed investments on behalf of Innovation Norway AS:

Other share investments	Quantity	Face value per share	Shareholding	Cost price
Adline Professional AS	2 839	1	1,85 %	752 534
Arribatec Group ASA	27 780		0,04 %	500 000
Entire Body AS	3 334	15	2,94 %	500 010
EYR Medical AS	6 521	0,3	0,87 %	1 499 830
Fabriscale Technologies AS	3 223	1	4,3 %	1 999 793
Future Ready AS	638	1	1,17 %	250 000
LeadX AS	1 333 333	0,001	3,18 %	750 000
Leid AS	1 609	1	1,355 %	750 357
Quine AS	825	1	1,278 %	750 750
Slipper AS	91 245	0,01	2,02 %	252 930
Smartbells AS	35 235	0,032	2,54 %	1 001 209
Spoortz Holding AS	76 923	0,1	0,51 %	999 999
Tipio	10 566	0,1	0,73 %	249 992
Tundra Drone	1 745	1	1,28 %	249 946
Unloc AS	63 000	0,01	0,7 %	499 760
Total pre-seed investments				**11 007 110**
Total investments in associates				**49 276 341**

Note 10 Financial instruments

The company has invested surplus liquidity in equity and bond funds. The placements are recorded at fair value as of 31 Dec.

SRL

Type of placement	Accounted value	Share	Cost
Interest fund	12 696 609	74 %	11 693 585
Equity fund	4 452 239	26 %	3 188 976
SUM	**17 148 848**	**100%**	**14 882 561**

The year's positive value change of NOK 1 060 171 is accounted for as Other financial cost in the profit and loss account.

Simula Group

Type of placement	Accounted value	Share	Cost
Interest fund	34 230 453	77 %	32 778 967
Equity fund	10 313 210	23 %	8 390 787
SUM	**44 543 663**	**100 %**	**41 169 754**

The year's positive value change of NOK 3 865 592 is accounted for as Other financial cost in the profit and loss account.

Note 11 Bank deposits

	SRL	Simula Group
Restricted tax withholdings total:	3 909 806	7 979 829

Note 12 Share capital and share holders

Share capital	Quantity	Face value	Capitalized
Ordinary shares	800	1 500	1 200 000
Total	**800**		**1 200 000**

The company's shareholders as of 31.12	Quantity	Share
The Norwegian state represented by the Ministry of Education and Research	800	100 %
Total no. of shares	**800**	**100 %**

Note 13 Equity

SRL		Share capital	Other equity	Sum
Equity as of 1.1	1 200 000	77 248 524	78 448 524	
Profit/loss for the year			-5 632 579	-5 632 579
Equity as of 31.12		**1 200 000**	**71 615 945**	**72 815 945**

Simula Group		Share capital	Other equity	Minority	Sum
Equity as of 1.1	1 200 000	119 519 210	18 176 530	138 895 740	
Capital change in connection with liquidation of SL *		-1 578 179	-768 762	-2 346 941	
Profit/loss for the year	-	-15 235 282	-2 950 027	-18 185 309	
Equity as of 31.12	**1 200 000**	**102 705 749**	**14 457 741**	**118 363 490**

* Simula Learning AS (SL) was liquidated in 2023 and the loss for the year has not been recognised in the group's profit and loss.

Note 14 Balances and transactions between group companies

	2023	2022
Receivable from SI	19 459	0
Receivable from SL	0	293 263
Receivable from SimulaMet	157 003	23 581
Receivable from SC	800 929	690 340
Payable to SI	13 804	4 050
Payable toSimula UIB	240 167	0
Payable to SC	0	0
Payable to SimulaMet	1 057 254	0
Sale of services, etc to SI	614 176	559 210
Sale of services, etc to SL	208 333	950 009
Sale of services, etc to Simula UIB	2 142 942	2 097 186
Sale of services, etc to SimulaMet	5 194 677	4 854 698
Sale of services, etc to SC	6 783 241	6 987 770
Purchases of services, etc from SI	161 364	585 940
Purchases of services, etc from SL	7 824	1 105 500
Purchases of services, etc from Simula UIB	0	144 900
Purchases of services, etc from SimulaMet	12 413 732	13 420 510
Purchases of services, etc from SC	766 146	422 609

Note 15 Receivables and liabilities

	SRL		SRL Group	
Long-term debt due in more than five years	2023	2022	2023	2022
Pre-seed funds from Innovasjon Norge AS	-	-	11 007 110	12 007 110
Total	**-**	**-**	**11 007 110**	**12 007 110**

Note 16 Advance payments of grants and research funding

SRL	2023	2022
Advance, not earned by 31.12.	34 650 727	41 608 885

Simula Group	2023	2022
Advance, not earned by 31.12.	42 300 806	53 368 997

The advances are booked on the account line Other short-term liabilities in the balance sheet.

Received and unpaid pre-financing in connection with an EU project where SRL is the coordinator is booked net in the balance sheet.

Note 17 Financial market risk and currency risk

The group is to a certain extent exposed to financial market risk by investing in start-up companies, and by the fact that surplus liquidity in certain subsidiaries is placed in equity and fixed income funds.

The currency risk the company is exposed to is mainly due to EU-funded research and collaboration with universities in the United States.

Cash flow statement 2023

	SRL			SRL Group	
	2022	**2023**		**2023**	**2022**
			CASH FLOW FROM OPERATING ACTIVITIES		
	-5 371 093	**-5 632 579**	**Net profit for the year**	**-18 185 309**	**-28 235 085**
	1 691 794	2 023 800	Depreciation and write-downs	3 083 694	2 715 171
	-	-	Change in value of shares	2 958 123	5 541 209
	-15 286 645	-4 013 294	Change in receivables	-7 049 715	-3 227 967
	32 848 507	-14 505 959	Change in current liabilities	-19 627 832	21 484 808
	13 882 563	**-22 128 032**	**NET CASH FLOW FROM OPERATING ACTIVITIES**	**-38 821 039**	**-1 721 864**
			CASH FLOW FROM INVESTING ACTIVITIES:		
	-6 285 600	5 973 000	Changes in connection with arrival/disposal	-2 346 941	-285 600
	-4 956 552	-362 733	Net investments in operating assets	-1 630 958	-5 349 273
	-	-	Net investments in/sale of shares	4 215 822	-5 560 673
	-11 242 152	**5 610 267**	**NET CASH FLOW FROM INVESTING ACTIVITIES**	**237 923**	**-11 195 546**
			CASH FLOW FROM FINANCING ACTIVITIES:		
	-	-	Repayment of loans	-994 462	-1 527 383
	-	-	Injected equity	-	-
	94 681	-	Change in deffered tax/tax benefit	-	94 681
	94 681	**-**	**Net cash flow from financing activities**	**-994 462**	**-1 432 702**
	2 735 092	**-16 517 765**	**Net cash flow for the year**	**-39 577 578**	**-14 350 112**
	56 766 350	59 501 442	Cash holdings 1.1	130 673 198	145 023 310
	59 501 442	42 983 677	Cash holdings 31.12	91 095 620	130 673 198
			THIS CONSISTS OF:		
	4 633 389	-6 583 362	Change bank deposits	-28 935 114	5 045 428
	-1 898 297	-9 934 403	Changing financial current assets	-10 642 464	-19 395 540
	2 735 092	**-16 517 765**	**SUM TOTAL**	**-39 577 578**	**-14 350 112**

Audit report

INSIGNIS

Til generalforsamlingen i Simula Research Laboratory AS

Uavhengig revisors beretning

Konklusjon

Vi har revidert årsregnskapet for Simula Research Laboratory AS som består av:

- selskapsregnskapet, som består av balanse per 31. desember 2023, resultatregnskap og kontantstrømoppstilling for regnskapsåret avsluttet per denne datoen og noter til årsregnskapet, herunder et sammendrag av viktige regnskapsprinsipper, og
- konsernregnskapet, som består av balanse per 31. desember 2023, resultatregnskap og kontantstrømoppstilling for regnskapsåret avsluttet per denne datoen og noter til årsregnskapet, herunder et sammendrag av viktige regnskapsprinsipper.

Etter vår mening

- oppfyller årsregnskapet gjeldende lovkrav,
- gir selskapsregnskapet et rettvisende bilde av selskapets finsielle stilling per 31. desember 2023 og av dets resultater for regnskapsåret avsluttet per denne datoen i samsvar med regnskapslovens regler og god regnskapsskikk i Norge, og
- gir konsernregnskapet et rettvisende bilde av konsernets finsielle stilling per 31. desember 2023 og av dets resultater for regnskapsåret avsluttet per denne datoen i samsvar med regnskapslovens regler og god regnskapsskikk i Norge.

Grunnlag for konklusjonen

Vi har gjennomført revisjonen i samsvar med International Standards on Auditing (ISA-ene). Våre oppgaver og plikter i henhold til disse standardene er beskrevet nedenfor under *Revisors oppgaver og plikter ved revisjonen av årsregnskapet*. Vi er uavhengige av selskapet og konsernet i samsvar med kravene i relevante lover og forskrifter i Norge og International Code of Ethics for Professional Accountants (inkludert internasjonale uavhengighetsstandarder) utstedt av International Ethics Standards Board for Accountants (IESBA-reglene), og vi har overholdt våre øvrige etiske forpliktelser i samsvar med disse kravene. Innhentet revisjonsbevis er etter vår vurdering tilstrekkelig og hensiktsmessig som grunnlag for vår konklusjon.

Øvrig informasjon

Styret og daglig leder (ledelsen) er ansvarlige for informasjonen i årsberetningen. Vår konklusjon om årsregnskapet ovenfor dekker ikke informasjonen i årsberetningen.

I forbindelse med revisjonen av årsregnskapet er det vår oppgave å lese årsberetningen. Formålet er å vurdere hvorvidt det foreligger vesentlig inkonsistens mellom årsberetningen og årsregnskapet og den kunnskap vi har opparbeidet oss under revisjonen av årsregnskapet, eller hvorvidt informasjon i årsberetningen ellers fremstår som vesentlig feil. Vi har plikt til å rapportere dersom årsberetningen fremstår som vesentlig feil. Vi har ingenting å rapportere i så henseende.

Basert på kunnskapen vi har opparbeidet oss i revisjonen, mener vi at årsberetningen

- er konsistent med årsregnskapet og
- inneholder de opplysninger som skal gis i henhold til gjeldende lovkrav.

INSIGNIS

Ledelsens ansvar for årsregnskapet

Ledelsen er ansvarlig for å utarbeide årsregnskapet og for at det gir et rettvisende bilde i samsvar med regnskapslovens regler og god regnskapsskikk i Norge. Ledelsen er også ansvarlig for slik intern kontroll som den finner nødvendig for å kunne utarbeide et årsregnskap som ikke inneholder vesentlig feilinformasjon, verken som følge av misligheter eller utilsiktede feil.

Ved utarbeidelsen av årsregnskapet må ledelsen ta standpunkt til selskapets og konsernets evne til fortsatt drift og opplyse om forhold av betydning for fortsatt drift. Forutsetningen om fortsatt drift skal legges til grunn for årsregnskapet så lenge det ikke er sannsynlig at virksomheten vil bli avviklet.

Revisors oppgaver og plikter ved revisjonen av årsregnskapet

Vårt mål er å oppnå betryggende sikkerhet for at årsregnskapet som helhet ikke inneholder vesentlig feilinformasjon, verken som følge av misligheter eller utilsiktede feil, og å avgi en revisjonsberetning som inneholder vår konklusjon. Betryggende sikkerhet er en høy grad av sikkerhet, men ingen garanti for at en revisjon utført i samsvar med ISA-ene, alltid vil avdekke vesentlig feilinformasjon. Feilinformasjon kan oppstå som følge av misligheter eller utilsiktede feil. Feilinformasjon er å anse som vesentlig dersom den enkeltvis eller samlet med rimelighet kan forventes å påvirke de økonomiske beslutninger som brukerne foretar på grunnlag av årsregnskapet.

For videre beskrivelse av revisors oppgaver og plikter vises det til:
https://revisorforeningen.no/revisjonsberetninger

Oslo, 6. mars 2024
Insignis AS

_____
Kristoffer Langva
statsautorisert revisor

Side 2 av 2

Gender equality, social responsibility and working environment 2023

Gender balance at Simula

As of the 31st of December 2023, the Simula group consisted of a total of five companies in Norway: Simula Research Laboratory (SRL), Simula Metropolitan Center for Digital Engineering (Simula Met), Simula UiB, Simula Innovation and Simula Consulting. Additionally, Simula has established a subsidiary in the US, Simula Inc., to handle employment in the US. The group has a total of 209 employees, of whom 193 have Simula as their main position. SRL has a total of 117 employees, of whom 109 have SRL as their main employer. The gender balance in both the Simula Group, SRL, and SimulaMet specifically is shown in Table 1 as the number of male and female employees with main positions in Simula, while Table 2 shows the gender balance according to other working conditions. To preserve the anonymity of the employees, several positions have been grouped so that each category has at least five men and five women at the Group level.

Due to the nature of Simula's work, many employees are hired in temporary or part-time positions. For example, a large part of the workforce is temporary recruitment positions (PhDs and postdocs), and the position category 'adjunct research scientist' comprises part-time employees who have a main position with another employer. Although the exact number of employees in these positions will vary somewhat from year to year, in line with the number of externally funded projects, the total number is relatively stable over time.

Table 1: Gender balance amongst employees that have Simula as their main employer. Job categories with less than five women and five men are not reported and are marked with a dash (-).

Job categories at Simula	Simula Group		SRL		SimulaMet	
	Women	Men	Women	Men	Women	Men
Total	61	132	36	73	19	34
Research positions	13	61	9	30	-	-
Recruitment positions	28	64	15	38	9	17
Administrative positions	20	7	12	5	-	-
Group management	5	6	-	-	-	-

Job categories in Table 1:
- Research positions: includes researcher I, II and III positions (not including adjunct research scientists), and engineers
- Recruitment positions: trainees, PhDs, postdocs
- Administrative positions: HR, finance, communication, IT operations, management
- Group management: includes the CEO, company directors and managers who are part of the management group. Members of group management have their main position

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Table 2: Gender balance in terms of other employment variables

	Temporary staff		Actual part-time		Involuntary part-time		Parental leave	
	Women	Men	Women	Men	Women	Men	Women	Men
Simula Group	31	83	-	18	-	-	27	12
SRL	17	49	-	10	-	-	-	-
SimulaMet	10	25	-	8	-	-	-	-

The groupings in Table 2 are defined as follows:
- Temporary staff: mainly recruitment positions (PhDs and postdocs), adjunct professor positions, interns and assistants/substitutes. Stated in the number of employees.
- Actual part-time: includes both research and administrative employees at Simula. The majority of the employees in this category have positions with other employers that are relevant to the work they perform at Simula (e.g., these are mainly adjunct research scientist positions). Stated in the number of employees.
- Involuntary part-time: we have no employees in part-time positions that wish to work more.
- Parental leave: stated in the number of weeks. The total number of weeks per gender is then divided by the number of women or men who have taken parental leave to show the average withdrawal per person of that gender.

Simula's work for equality and anti-discrimination
Simula relies on the competence and motivation of skilled employees to achieve its goals. By recruiting highly qualified researchers from all over the world, Simula has become an increasingly diverse workplace. Simula's employees currently represent 44 different nationalities and 56 % of the employees come from countries other than Norway (see Figure 1). In total, 30 % of Simula's employees are women (18 % of Simula's academic staff, see Figure 2).

General principles for gender equality and anti-discrimination
Working towards gender equality is firmly anchored in Simula's management approach and in various strategies and guidelines:
• Simula has worked purposefully to recruit and cultivate female research talent for over 10 years. Simula's initial goal to increase the proportion of women in research positions to 25% was achieved in 2013. Simula's aim is to achieve a total proportion of women of 40% of all employees by 2028.
• Extensive work in health, safety and environment (HSE) is carried out regularly. This involves health and safety representatives, the working environment committee, PhD forum, HR and the welfare committee. In addition, employee well-being surveys and broader working environment surveys are conducted regularly.
• The boards of directors in Simula companies receive regular reports on employee welfare, both routinely (for example, HSE reports for each board meeting) and regarding significant issues that may affect employees.
• Simula's culture document clearly describes our core values and expectations for a good and inclusive workplace; this document is published on the company website.
• Simula has clear guidelines to prevent all forms of harassment, with a corresponding notification system in place.

Practical procedures for equality and anti-discrimination
Simula works actively and deliberately with equality and anti-discrimination, which are essential components of Simula's efforts to ensure good working conditions in practice. Responsibility for this work is shared across several functions, including health and safety representatives, the working environment committee, HR, managers at all levels, the management group and the boards of directors. Measures that are decided are implemented by the administration, and in many cases, it is done in cooperation with representatives of the employees (working environment and safety representatives, or trade union representatives). Information flow is ensured via regular meetings between department heads and selected administration functions. In addition, all employees at Simula have an independent responsibility for safeguarding the Simula culture and contributing to an inclusive working environment. Employees also have a duty to make it known if they discover any form of harassment at work.

As a result of this extensive work over many years, Simula has implemented measures that contribute to equality and anti-discrimination. The current measures are described below.

Working environment
Quality assurance and continuous workplace development at Simula is facilitated by means of an internal inspection system that embraces health, safety and the working environment. The working environment committee strives to develop and maintain the quality of the working environment and to follow up on questions related to employee safety, health and welfare. In the autumn of 2022, Simula carried out a new working environment survey across all companies in the Group. The results once again showed that Simula has a very good working environment both compared to previous surveys at Simula and in comparison with the research institute sector in general. Following the survey, we have continued the work of following up in the individual units and in Simula as a whole. We consider this work to be a continuous process without a start or end date. We aim to conduct major work environment surveys every other year. In 2024, we will carry out quarterly pulse surveys.

Facilitation of and opportunities to combine work and family life
Simula facilitates a good balance between work and leisure, including family life. With flexible working hours and arrangements for home office, employees can combine a demanding career with activities and responsibilities outside of work.

With these measures, Simula aims to contribute to being a good workplace for all its employees, regardless of the background and life situation of the individual.
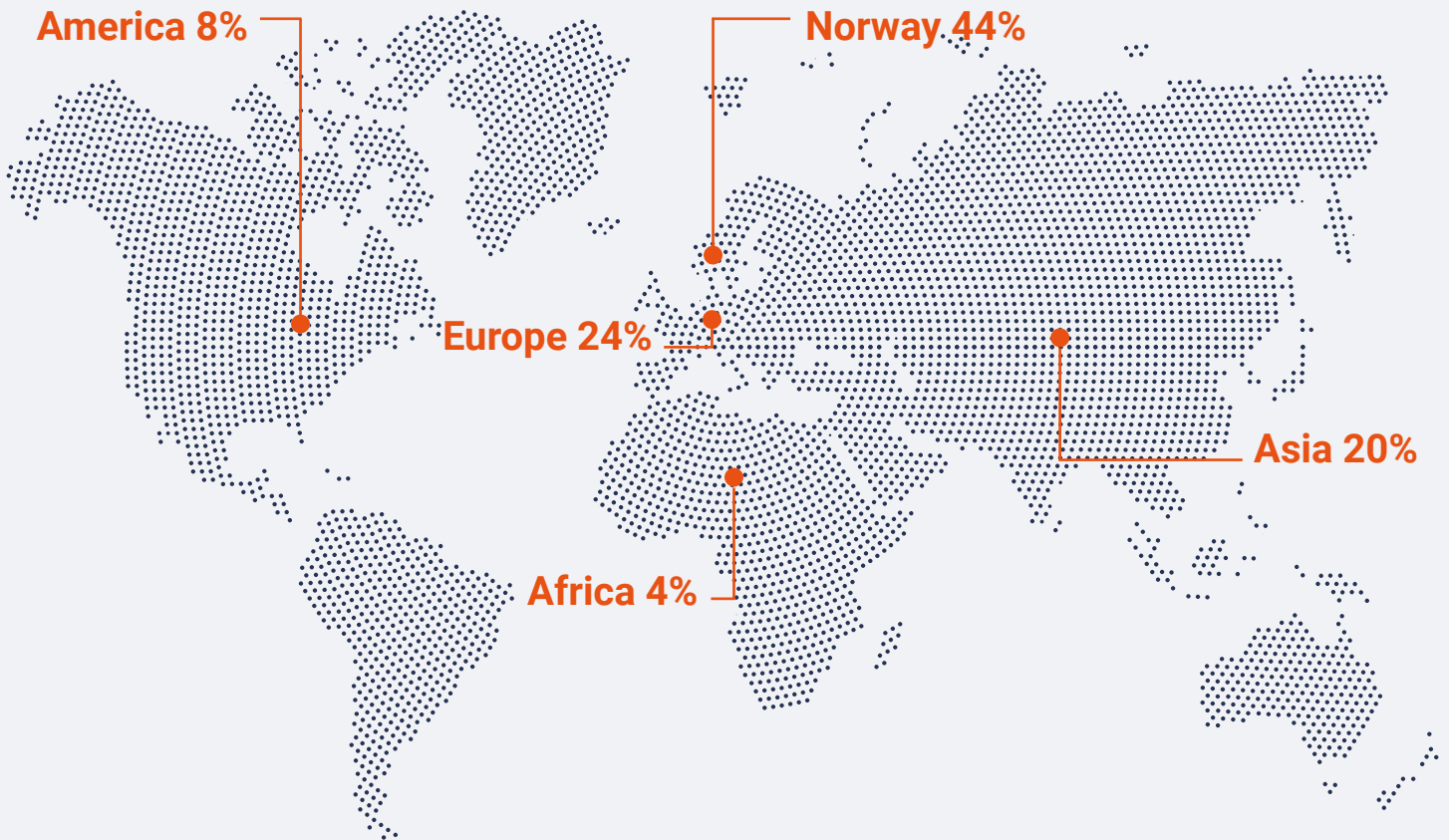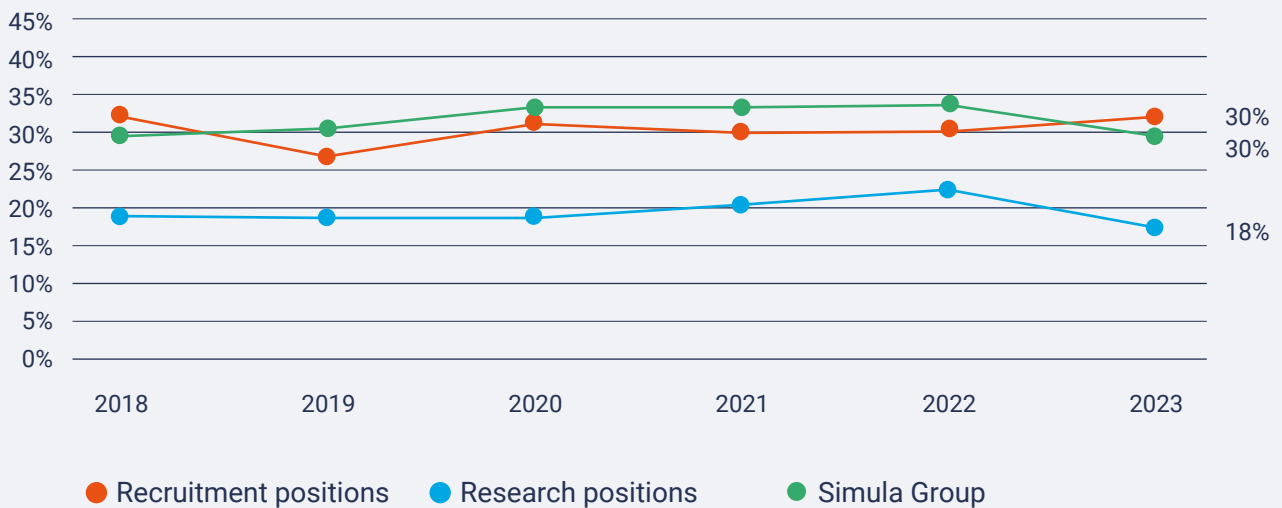
Figure 1: Simula is a diverse workplace. The figure shows the proportion of employees from different continents.

America 8%

Norway 44%

Europe 24%

Asia 20%

Africa 4%

Figure 2: Proportion of scientific positions at Simula held by women.

30%
30%

18%

● Recruitment positions   ● Research positions   ● Simula Group

Recruitment and professional development

Simula continuously works to attract, develop and retain talented researchers of diverse backgrounds. Simula's recruitment guidelines require qualified candidates of both genders to be called in for an interview. The guidelines are regularly communicated to employees responsible for recruiting new researchers at project manager seminars among other occasions. For those recruited from abroad, Simula facilitates a quick and positive transition to the Norwegian workplace through administrative support, social activities and Norwegian language training. Language training is also offered to the spouses/partners of new employees relocating to Norway.

Simula promotes career development by providing access to the professional and administrative resources necessary to establish oneself as a researcher. All employees are encouraged to sign up for courses and training opportunities that can contribute to their development as experts and leaders. Since 2016, several project managers have attended intensive leadership training programmes at internationally recognised institutions such as Stanford University, Harvard, the Wharton School and London Business School. Simula also arranges seminars for supervisors with a focus on relevant and challenging topics and offers courses for PhD students and postdocs to develop their understanding and skills required as a supervisor.

Simula Academy, which works with researcher training and professional development at Simula, organised a wide range of courses and activities for Simula's employees that have direct relevance for a career in research, as well as contribute to an inclusive working environment. In 2022, these activities included career guidance and planning for postdocs and recently hired permanent researchers (Postdoc Career Success Program), an intensive PhD course called Communicating Scientific Research, tailored workshops, and coaching in scientific communication. In addition, the Academy hosted seminars and workshops on leadership development (situation-based management, how to give feedback, and supervision), and a seminar for new employees to clarify expectations and highlight opportunities available to Simula's employees.

Salary structure

Every second year, Simula conducts an evaluation of salary conditions in the organisation. This was most recently conducted in 2023. The goal is twofold: to assess whether salary levels at Simula are competitive (external perspective) and if they reflect the individual's responsibilities and job category (internal perspective). In this evaluation, we consider similar positions (e.g., PhD students) and work of similar administrative contribution (e.g., human resources and communications staff). Additionally, individual assessments related to

Table 3: Average number of years of experience after master's degree

Position categories	Average years of experience after master's degree		Salary differences (Men:Women)
	Women	Men	
Scientific positions			
- Senior level	16 years	20 years	13 %
-Intermediate level	8 years	7 years	4 %
Recruitment positions	5 years	4 years	2 %
Administrative positions	-	-	

such variables as education, experience and individual contribution are conducted, as are any differences according to gender. Deviations that are identified are processed and corrected.

In the overview below, we have used job categories that make it practically possible to classify work of equal value, but even here, we see that it is difficult to present data with large enough groupings within these categories. Therefore, we have used average years of experience post-master's degree as a parameter to provide a more nuanced view of the numbers. In particular, we see that the category 'scientific positions – senior' suggests a gender imbalance. Here too, each individual employee has been evaluated based on the criteria outlined above (experience, contribution, and level of responsibility), and we have assessed the imbalance to be a result of the total category being both small and very heterogeneous.

The administration includes management, IT operations, janitorial services, reception, finance, HR, and communications. In total, the administration consists of 27 employees. It is not prac-tical to present these figures collectively since the variation in the work is significant, and when dividing into similar work of equal value, the number in each category becomes too few. However, a similarly thorough salary analysis has been conducted for the administration as for the rest of the group, and this has shown that each individual's work is compensated according to their experience, contribution, and level of responsibility.

Employees for whom Simula does not determine the salary level are not included in this analysis. This primarily applies to the general manager of the legal entities, where the respec-tive boards determine the salary level.

Promotion
Each year, Simula carries out a process where the scientific staff are assessed according to established job criteria for promotion. Those who meet the requirements are promoted to a higher scientific position.

Absence due to illness
Sick leave is generally low at Simula. In 2023, absence due to illness was 1.9 % across the Group (1.8 % for SRL and 2.4 % for SimulaMet). Simula has measures in place to prevent and reduce ab-senteeism, strengthen job presence, and prevent dropout from the workforce.

Conflict management and work against harassment
Simula aims to ensure a safe and secure working environment in accordance with the Group's principles on culture in the workplace. As such, Simula shows consideration for employees' individual needs and does not accept or tolerate any form of harassment, expulsion or discrimination based on religion, gender, sexual orientation, age, nationality, disability or political views. Simula's guidelines for conflict resolution and notification encourage employees to take an active role in creating a working environment where conflict is handled in an open, honest and constructive way, and in efforts to prevent destructive forms of conflict from arising in the first place.

Ethics
Maintaining high ethical standards is of great importance to Simula as an organization and to our employees. Simula's ethical guidelines have been drawn up to raise awareness of and to comply with the high ethical standards required of each individual employee. The ethical guidelines contain points such as research ethics; working environment and inclusion; gifts, bribes and corruption; confidentiality; and conflicts of interest. Compliance with the guidelines helps to create credibility in cooperation with partners. The guidelines are available to all employees on Simula's intranet.

How Simula works for equality and non-discrimination
Simula's work for gender equality and anti-discrimination is a continuous interaction between several key players in the Group, including the management, the board, the administration, employees and employee representatives. Simula's administration already bases much of its work on a 4-step working cycle:

1. Examine the risk of discrimination and obstacles to equality
2. Analyse causes
3. Implement measures
4. Evaluate results

In recent years, Simula has carried out a targeted process to identify discrimination and gender equality risks and to develop corresponding

measures. Several of the recruitment measures established in the process of this review, such as always interviewing at least one qualified candidate of each gender for a position, are now established practice.

In 2023, Simula has continued to work for equality and anti-discrimination. Selected examples from this work can be found in Table 4.

Table 4: Selected examples of work with risk identification and initiative development

Potential risk	Possible causes	Corresponding measures	Effect of measures
1. Possible risk of slower professional advancement among female researchers.	Female researchers publish less and apply for fewer externally funded projects.	Simula has developed a quality assurance process that supports researchers in preparing project applications. This offer is available to all employees.	Applications have received better evaluation scores; the gender dimension is not yet clear.
2. Possible risk of the "leaky pipeline" known in academia - do we have good enough measures to ensure that we retain talented female researchers at senior levels in the organisation?	Parts of the working environment are not sufficiently adapted to attract and retain the best researchers – regardless of gender, background or life situation.	Simula participates in the Research Council's BalanseHub network with a separate project that supports measures to develop a more inclusive working environment.	The project "Hidden Figures" was a part of the BalanseHub[1] network lasted from 1.1.2021 to 31.01.2023 (see below for details).
3. Possible risk of an incomplete overall picture of the need for competence-developing courses and offers in Simula.	Constantly changing needs and lack of comprehensive overview available in Simula.	A working group assesses which competence-developing courses are to be offered, what exists today, and what is needed in the short and long term.	We will have to assess the effect of this at a later date.
4. Possible risk that employees returning from leave find it difficult to get back on track in their work. Are there unresolved effects of the new home office policy on the working environment and productivity?	After extended leave such as parental leave, employees will need an update on what has happened both professionally and organisationally since the leave started.	Introduced a fixed routine for a conversation between the immediate superior and employee returning from leave. This should facilitate a smoother transition ("re-boarding"). The initiative was launched in autumn 2021.	We plan to evaluate this initiative in 2023.
5. Possible risk that less contact between colleagues could be problematic for certain employee groups.	Increased flexibility as a result of the new home office policy may lead to less professional contact.	After the Covid-19 pandemic, a test period was carried out to try out different home office models. This was done to assess which model is best for our working environment and for professional development. After the end of the test period, a 3:2 model was introduced, in which three days a week are in the office and two days are flexible. The new model was implemented in Sept. 2022.	We will assess the effects of this model continuously over the next few years. This can, for example, be done in a survey or in connection with employee interviews.
6. Possible risk that employees underestimate their own competence and that this has a negative effect on career progression.	Uncertainty about one's own competence and how to make it visible.	Introduced CV review to highlight and emphasise the experience and competence of the individual employee. The review has also been used to identify areas where employees can further develop their own skills. The initiative is intended to help each individual highlight their strengths and relevant experience.	Although it is difficult to measure the effect of this initiative, we have received positive feedback that this raised awareness.

[1] BalanseHub: a network project from the Research Council that supports cultural and structural changes to promote equality and gender balance in research institutions.

Company overwiew 2023

Simula consists of five companies located in three places in Norway. Since the establishment of Simula Research Laboratory AS (SRL) in 2001, several subsidiaries have been created under SRL to organize the company's expanding activities in research, education, and innovation. The companies are summarized below.

Simula Research Laboratory (SRL) AS

Managing Director: Lillian Røstad
Location: Oslo (Tullinløkka)
Ownership: 100% Norwegian Ministry of Education and Research

The departments of the mother company concentrate primarily on research and the education of graduate students within the ICT fields of software engineering and scientific computing. SRL also manages researcher training (Academy).

Director of SRL Research: Joakim Sundnes
Research director: Are Magnus Bruaset

Research departments:
- Dept. of Computational Physiology (ComPhy)
  Dept. Head: Hermenegild Arevalo
- Data Driven Software Engineering Dept. (DataSED)
  Dept. Head: Leon Moonen
- Dept. of Engineering Complex Software Systems (ComplexSE)
  Dept. Head: Shaukat Ali
- Dept. of High Performance Computing (HPC).
  Dept. Head: Xing Cai
- Dept. of Numerical Analysis & Scientific Computing (SCAN)
  Dept. Head: Ada Johanne Ellingsrud
- Dept. of Validation Intelligence for Autonomous Software Systems (VIAS)
  Dept. Head: Arnaud Gotlieb

Other department:
- Simula Academy
  Director: Rachel Thomas

Simula Metropolitan Center for Digital Engineering (SimulaMet)

Director: Olav Lysne
Deputy director: Marianne Sundet
Location: Oslo (Bislett)
Ownership: 51 % Simula Research Laboratory, 49 % Oslo Metropolitan University

SimulaMet's research activities are focused in networks and communications, machine learning and IT management. In addition to conducting research, SimulaMet also educates and supervises PhD and Masters' students at Oslo Metropolitan University and contributes to innovation in society through collaboration projects, startup companies and licensing of research results. SimulaMet is located at Oslo Metropolitan University.

Research Director: Sven-Arne Reinemo

Research departments:
- IT Management
  Dept. Head: Magne Jørgensen
- Data Science and Knowledge Discovery (DataSci)
  Dept. Head: Evrim Ataman
- Centre for Resilient Networks & Applications (CRNA)
  Centre Leader: Haakon Bryhni
- Holistic Systems (HOST)
  Dept. Head: Pål Halvorsen
- Signal and Information Processing for Intelligent Systems (SIGIPRO)
  Dept. Head: Baltasar Beferull-Lozano
- EDOS - Effektiv Digitalisering av Offentlig Sektor
  Centre Leader: Magne Jørgensen

Simula UiB

Director: Carlos Cid
Location: Bergen
Ownership: 51 % Simula Research Laboratory,
49 % Universiy of Bergen (UiB)

Simula UiB specialises in cybersecurity and conducts research and education in cryptography and information theory. Simula UiB is based at the Department of Informatics at the University of Bergen.

Research Director:
Øyvind Ytrehus

Research departments:
- Kryptografi
  Avdelingsleder: Håvard Raddum
- Informasjonsteori
  Avdelingsleder: Eirik Rosnes

Simula Innovation (SI)

Director: Ottar Hovind
Location: Oslo (Tullinløkka)
Ownership: 100 % Simula Research Laboratory

Here, research meets the practical demands posed by society. SI manages Simula's investment portfolio and supports entrepreneurs from the start-up phase.

Simula Consulting (SC)

Director: Holger Hussmann
Location: Oslo (Tullinløkka)
Ownership: 100 % Simula Research Laboratory

Simula Consulting offers high-quality R&D consulting services (research and development) within the core competency areas of Simula.

Simula Research

The bulk of Simula's research is conducted within five main ICT areas: Communication Systems, Software Engineering, Scientific Computing, Machine Learning and Cryptography. Our research is conducted at Simula Research Laboratory, SimulaMet, and Simula UiB, in close collaboration with both national and international partners.

Simula Research Laboratory (SRL)
SRL's research is specialised in Scientific Computing and Software Engineering.

The researchers working within scientific computing develop advanced simulation tools based on mathematical models and supercomputing. Computational models of this type are central tools in all branches of natural science and technology, and Simula works to make the models more accessible, accurate, and efficient. Simula's main interest is to develop models for use in physiology and medicine, with a particular focus on processes in the heart and brain. The models have the potential to be used in patient care and to increase understanding of significant health problems such as heart failure, stroke, and dementia.

Simula is a partner in two major EU projects that have been highly active throughout 2023. The project "Simulation of Cardiac Devices & Drugs for in-silico Testing and Certification (SimCardioTest)" is developing models and software for virtual clinical testing of medical technology and drugs, while "Numerical Modeling of Cardiac Electrophysiology at the Cellular Scale (MicroCard)" is developing the next generation of tools to simulate electrical signals in the heart. Both projects are in their final stages, and in 2023 the focus has been on complet-

ing results and tools and exploring possibilities for further collaboration with the partners in the projects. MicroCard is a project that brings Simula's methods for heart simulations into the new generation of high-performance computing, so-called exascale computing.

Two new projects received external funding approval in 2023, for start-up in 2024. The "Battery Cell Assembly Twin (BatCat)" project, funded by Horizon Europe, will model and simulate battery production with the goal of developing better underlying technology and batteries with longer lifespans. This project represents a new application for Simula, but builds on tools and expertise common to other ongoing projects. Additionally, Simula is a partner in the "K.G. Jebsen Center for Brain Fluid Research," which starts in 2024 and is based on a long-term collaboration between Simula's researchers and medical communities.

Within software engineering, our researchers use methods and tools to design, develop, maintain, test, and validate complex software systems. The goal is to ensure that the software we rely on is robust, reliable, safe, and secure, both for today's systems and for future quantum systems. Simula's researchers within software engineering have had great success with project applications to both the

Norwegian Research Council (NFR) and Horizon Europe in 2023, and a wide range of new projects started in 2023 and the first part of 2024. Artificial intelligence is a common denominator for most of these projects. Several projects are related to sustainability and the green transition, including "Green AI for Sustainable Shipping (GASS)" and "Dynamic Navigation and Port Call Optimisation in Real Time (Dynaport)." Both projects address, in different ways, the reduction of the carbon footprint from maritime transport by developing new AI-based tools for optimized ship navigation. Another example is "Trustworthy AI for Cooperative, Connected and Automated Mobility (AI4CCAM)," which focuses on how to make autonomous vehicles traffic-reliable. This project is funded by Horizon Europe and led by Simula.

In recent years, Simula has taken a central role in international research on various challenges arising in the development of software for quantum computers. Such machines are fundamentally different from the computers used today and require a completely different mindset around programming and software development processes. This activity has continued with full strength in 2023, notably in the Nordic project NordiQuEst. The work will soon be continued in the EuroHPC project LUMI-Q, which aims to establish one of the EU's first six quantum computers.

Simula Metropolitan Centre for Digital Engineering (SimulaMet)
SimulaMet's research is primarily specialised within Communication Systems and Machine Learning, as well as IT Management.

Within communication systems, our researchers explore methods for taking advantage of the opportunities while reducing the risks associated with modern communication systems. Our goal is to make digital infrastructure more robust, resilient, and secure, and to develop ad-vanced applications for now and the future. We also study interactions between these systems and society to help inform government policy. Based on our research activities within commu-nications systems, Simula has entered an agreement with the Norwegian Directorate for Civil Protection (DSB) for guidance and contract research related to the introduction of a new emer-gency network.

Every year, a report on the state of Norwegian mobile networks is published as part of a mandate from the Ministry of Local Government and Regional Affairs. The report is based on long-term measurements from 141 stationary measuring points spread over large parts of Norway. Last year's report describes the state in 2022.

Within machine learning and computer science, our researchers are focused on the mathemat-ical foundations of machine learning, the experimental study of machine learning algorithms, and the application of machine learning in real-life applications including sports, human health and software engineering.

> **66**
> While machine learning is an integrated part of most of the research throughout Simula, the development of methods and mathematical foundations of machine learning takes place at SimulaMet.

Two new machine learning projects at SimulaMet received funding in 2023, through the Re-search Council's Innovation Project for Industrial Sector (IPN) proposal. Both projects are owned by companies spinning our from research activities in Simula. In the first project, the aim is to improve the efficiency of colonoscopies. SimulaMet will lead the activities related to algorithm development, leveraging our AI expertise in gastrointestinal endoscopies. In the second project, researchers from

SimulaMet will use machine learning to automate the process of creating video summaries and stories for all types of media.

Within IT management, our researchers are focused on the planning and implementation of large-scale IT projects. Through the research program EDOS - Effective Digitization of the Pub-lic Sector, investigations and analyses of digitization in the public sector are carried out. The aim is to provide knowledge about effective digitization of the public sector, and input on how to improve processes and methods for developing digital solutions. At the same time, EDOS contributes research-supported advice to the Ministry of Local Government and Modernization and other parts of the public sector. In 2023, EDOS carried out a contract research project on cost control and goal achievement in agile ICT projects for the Concept programme, funded by the Ministry of Finance.

Simula UiB

Simula UiB's research focuses on applied cryptography and information theory.

Within these areas, Simula UiB researchers design and analyse future systems for data communication, data storage and computation, with respect to security, privacy, reliability, efficiency, low energy consumption, and time delay, otherwise known as latency. The outcomes of this research make it possible to create new applications within IoT, data storage, machine learning, and collaboration between parties who do not fully trust each other. At the same time, it will also be possible to maintain security and privacy even if a full-scale quantum computer becomes available.

In 2023 we saw the start of COSINUS -- Collaboration On Secrecy to Investigate New USes, a 3-year project funded as part of Inria's Associate Team scheme to support the establishment of a research collaboration between COSMIQ-Inria and Simula UiB. Symmetric cryptography has evolved much in recent years, with the emergence of novel and more advanced computing environments, many of which are based on sophisticated Zero-Knowledge and Multi-Party Computation protocols. COSINUS combines the expertise of the two groups, to study and propose new designs and cryptanalytic techniques for this new breed of cryptography.

In a series of research papers, the latest from December 2023, Chief Research Scientist and Head of the Cryptography department Martijn Stam and collaborators have considered the security properties of the onion routing protocol, which is used by the Tor network to provide anonymous Internet communication. One of their contributions, namely how to make Tor's onion routing more resistant to so-called tagging attacks, has been selected for adoption by the Tor project and is being currently implemented for future deployment.

Simula UiB researchers have an excellent professional reputation and standing among their peers and make regular contributions to the corresponding academic communities. Martijn Stam was the program co-chair Eurocrypt 2023, one of the flagship annual international conferences focusing on cryptography. Senior Research Scientist Hsuan-Yin Lin is the chair of the recently established Norway Section Chapter of the Information Theory Society of the IEEE. Research Director Øyvind Ytrehus was one of the invited speakers at the NordSec 2023 conference, with a keynote presentation on post-quantum cryptography.

Quantum Information Theory, and how emerging quantum technologies will affect communication, computation and cyber security, is of considerable interest to researchers at Simula UiB. Researchers in the cryptography department work on the design and analysis of cryptographic mechanisms that remain secure even against adversaries with access to large enough quantum computers. Director Carlos Cid is part of the submission team of a cryptographic scheme with these features, which was selected as a 4th-round finalist to NIST's Post-Quantum Cryptography Standardization Project. Moreover, several of the researchers have contributed to the process with cryptanalytic results. At the information theory department researchers work on the development of efficient and reliable quantum information and computation systems using the principle of quantum error correction. Simula UiB is also a member of the Gemini Center on Quantum Computing.

A central objective at Simula UiB is the education and training of early-career researchers. In 2018, Simula UiB secured funding from the Ministry of Education and Research for 12 PhD and postdoctoral positions. Three PhD students graduated in 2023, making the number of Simula UiB alumni thirteen. They now work in industry, government, and academia, both in Norway and internationally.

Simula Education

Simula believes that educating and training to-morrow's scientists and technology experts is an integral part of conducting excellent research. In addition to running several intensive graduate-level courses, Simula supervises Master's and PhD students on their thesis work, and provides shorter paid internships that are embedded in the research groups. As education doesn't stop at graduation, Simula also organises a range of continuing education and training opportunities for employees and customers alike.

Simula's educational activities were previously organised by the Simula School for Research and Innovation (SSRI). From 01.01.2022, our educational activities were organised into two units: Simula Academy, which is responsible for research training and professional development activities, as well as coordinating students and internships at Simula, and Simula Learning, which focused on outreach and continuing education.

Simula Academy

Simula Academy is responsible for organising researcher training and professional development activities, as well as coordinating master's students and internships at Simula.

Highlights from 2023 include the Communicating Scientific Research course, summer school in computational physiology, supervisor seminar, two-day PhD retreat, career development program for PhDs, internships (20 summer jobs; 5 throughout the rest of the year), two-day postdoc retreat, company presentations at Norwegian universities and student visits at Simula. Individual workshops are held regularly throughout the year with the overall aim of offering competence-enhancing and career-promoting activities at all levels. Some of the topics were Make Better Posters, Mental Fitness, Scientific writing, Critical Appraisal of Scientific Articles, Leadership workshop: Making (and implementing) good decisions.

The traditional two-day PhD retreat included contributions from external instructors for sessions on Academic Writing and Work Identity and Career Health. New in 2023 was an 8-week career program for PhD candidates, as well as a two-day postdoc retreat focused on academic writing, and a two-day writing retreat organised in collaboration with Simula's funding team.

As part of Simula's researcher training activities for early career researchers, and to quality assure the supervision of summer interns, Simula Academy held a full-day seminar for the supervisor teams for the summer internship projects. This was primarily catered to new supervisors, mostly PhD students and postdocs, and included the contributions of external instructors that are themselves researchers on the topic of supervision in higher education. Participants were introduced to concrete tools for dialogue-based supervision and how to give effective feedback on academic texts.

A leadership workshop was commissioned from the executive education team from London Business School and tailored specifically for department heads, focused on how to make and implement good decisions. In addition, courses were held for project leaders at Simula that focused on the administrative aspects of managing projects and people.

In 2023, the summer school in computational biology was held in person with 32 students from 14 countries. Simula Academy has worked to create closer ties with students at Norwegian universities and actively uses student associations to advertise relevant courses, master's theses at Simula, the summer school and internship opportunities. These represent important recruitment channels for Simula and a valuable way of attracting talented students to Simula; this was reflected in the level of interest in the annual Master's Day at Simula, which had 75 participants registered from UiO, OsloMet, NMBU and USN.

Simula Learning (SL)

The main activity of SL was to provide programming skills to teachers (CodeSchool), in order to meet increased needs that arose once programming became a prominent component in Norwegian school curricula. SL's activities were beneficial to society, and approximately 2,000 participants attended courses in SL since CodeSchool was launched in 2018. Nonetheless, it was not possible to make enough money from course sales to make CodeSchool sustainable, and the board decided to close down SL after it accumulated large deficits. Liquidation of SL was carried out in the first quarter of 2023.

Education by the numbers 2023

13

Candidates supervised to the completion of their PhD degree

35

Students were supervised to the completion of their Master's degree

25

Students held an internship at Simula

60+

Master's and PhD students participated in intensive courses held at Simula

Simula Innovation & Services

Innovation activities are an inherent part of technology research. Simula has multiple complementary approaches to innovation in ICT, including a deep-tech consultancy that solves customers' problems and an investor that gets early start-ups to market, and conducting contract research in our core competence areas.

Simula Consulting

Simula Consulting's (SC) mission is to bridge the gap between academic discoveries and real-world challenges by providing high-quality consulting in various fields of technologies. This is achieved through a strong collaboration between Simula Consulting's team and researchers from Simula Research Laboratory.

Since its launch in 2020, SC's primary focus has been developing tailored technological solutions and providing technology assessments for large and small companies like Equinor, Kreftsregisteret and Huawei. In 2023, SC delivered more than 10 projects with functional systems deployed to its customers, mainly within the machine learning and artificial intelligence domain. SC also provides services for technical due diligence and gives business advise and organizes workshops related to the use of new technologies.

2023 has been a challenging year for many consultancy services, however SC has continued its growth, especially due to its differentiating competencies in the area of Machine Learning and Artificial Intelligence.

During 2023, Simula Consulting has experienced continued growth. The annual revenue has increased by 10% (from 22 million NOK to 24.5 million NOK). The goal for 2024 is continued, profitable growth while excelling in quality and expertise.

Simula Innovation

Simula Innovation Innovation (SI) focuses on building up a portfolio of companies that are spun out of Simula Research Laboratory's research projects or investments in other promising companies that link their business to new technology.

Since 2019, SI has experienced significant growth both in terms of new investments and exits. The latter occurs through the sale of parts or the entire share portfolio in a company.

During 2022, SI had three "exits", but at the same time invested in six new companies. At the end of 2022, SI's investment portfolio included 40 companies with a total turnover of over NOK 420 million and 450 employees. The 40 companies are grouped into the following eight categories: software, networks, SalesTech, PropTech, FinTech, MedTech, media and sports.

Contract Research:

Contract research is one of the activities that connect our researchers with industry, often focusing on the specific interests of our clients, both in the private and public sectors. We have established a seamless transition between commissioned research and consultancy services. On each project, researchers and consultants come together as a team to deliver the best outcome to the client.

We leverage the expertise of over 150 researchers across our five core research areas in information and communication technology. With this, we have access to the right expertise and can assemble a specialised team, even for the most significant challenges. In 2023, we conducted over 15 projects directly funded by the industry (commissioned research). The revenues from these projects exceeded 8 million NOK. This is in addition to the consultancy projects in SC.

Doctorates 2023

PhD candidate	Title of thesis	Supervisor	Co-supervisors	Univ.*
Andreas Thune	High Performance Computing for Reservoir Simulation On Software	Xing Cai	Tor Skeie, Ernst Gunnar Gran	UiO
Aslak Wigdahl Bergersen	Tools and Variability in Medical Image-Based Computational Fluid Dynamics	Kristian Valen-Sendstad	Joakim Sundnes, Samuel Wall	UiO
Azza Hassan Mohamed Ahmed	Control Principles for Autonomous Communication Networks	Ahmed Elmokashfi	Michael Riegler, Maksim Kitsak	OsloMet
Bastian Zapf	Inverse Mathematical Modeling of Solute Transport in the Human Brain	Kent-Andre Mardal	Simon Wolfgang Funke, Miroslav Kuchta, Geir Andre Ringstad	UiO
Eleonora Piersanti	Parameter-Robust Formulation and Preconditioning of Poroelasticity Equations for Brain Modelling	Marie Elisabeth Rognes	Kent-Andre Mardal, Kimberly McCabe	UiO
Farzan Majeed Noori	Multimodal Deep Learning Approaches for Human Activity Recognition	Jim Tørresen	Md Zia Uddin, Michael Riegler	UiO
Marie Roald	Understanding the Dynamics of Complex Systems Through Time-Evolving Data Mining	Evrim Acar Ataman		OsloMet
Qinghua Xu	Traversing the Data Spectrum: Path to Dependable Cyber-Physical Systems Through Digital Twins	Shaukat Ali	Tao Yue, Sabita Maharjan	UiO
Reent Schlegel	Coding for Privacy in Distributed Computing	Eirik Rosnes	Hsuan-Yin Lin	UiB
Roberto Parisella	On a New, Efficient Framework for Falsifiable Non-interactive Zero-Knowledge Arguments	Helger Lipmaa	Øyvind Ytrehus	UiB
Carla Schenker	A Flexible Framework for Data Fusion Based on Coupled Matrix and Tensor Factorizations for Interpretable Pattern Discovery	Evrim Acar Ataman	Jeremy Cohen	OsloMet
Luk Burchard	Repurposing Domain-specific Hardware	Xing Cai	Johannes Langguth, Are Magnus Bruaset	UiO
Hans Waardal Heum	Accelerators for Sparse and Irregular High-Performance General-Purpose Computation Cryptology in the Crowd	Martijn Stam	Øyvind Ytrehus	UiB

* University affiliation:
UiB = University of Bergen, UiO = University of Oslo, OsloMet = Oslo Metropolitan University
UiS = University of Stavanger, NMBU = Norwegian University of Life Sciences NMBU
NTNU = Norwegian University of Science and Technology

Master's degrees 2023

Master's student	Title of thesis	Supervisor	Co-supervisors	Univ*
Agathe By Raaum	Computational Study of the Impact of Parameter Variability and Drugs on Healthy and Failing Cardiac Cells	Joakim Sundnes	Ilsbeth Gerarda Maria van Herck	UiO
Alexander Klougman Pishva	Exploring the Potential of Diffusion Models in Generating Synthetic Polyps	Steven Hicks	Vajira Thambawita, Pål Halvorsen, Jim Tørresen	UiO
Anna Linnea Jarmann	Identifying Injury Risk Factors for Elite Soccer Teams Using Survival Analysis	Matthias Boeker	Cise Midoglu, Steven Hicks, Pål Halvorsen	UiO
Arfat Salman	QCross: Quantum Cross-Platform Testing	Shaukat Ali	Christoph Laaber, Are Magnus Bruaset	UiO
Audun Kühne Johansen	Fast Multi-GPU communication over PCI Express - Benchmarking PCIe transport with the NVIDIA Collective Communications Library (NCCL) using legacy GPUs	Håkon Kvale Stensland	Michael Riegler, Jonas Markussen	UiO
Bjørge Seim Øvstedal	Cloud Operations to Support UX and Accessibility for Crowdsourced Online Survey Framework Deployment	Pål Halvorsen	Cise Midoglu, Saeed Sabet	OsloMet
Dip Paul	Mapping the Spatio-Temporal Distribution of COVID-19 Misinformation on Twitter	Johannes Langguth	Carsten Griwodz	UiO
Eirik Duesund Helland	Tackling Lower-resource Language Challenges: A Comparative Study of Norwegian Pre-trained BERT	Pål Halvorsen	Steven Hicks, Stefan Schrunner	NMBU
Eirik Rygnestad Bergesen	Simulating Private Information Retrieval on Amazon Web Services	Hsuan-Yin Lin	Eirik Rosnes	UiB
Emil Christopher Gjøstøl Strømsvåg	Exploring the Why in AI: Investigating how Visual Question Answering models can be interpreted by post-hoc linguistic and visual explanations	Andrea Storås	Michael Riegler, Kyrre Glette	UiO
Fernando Vallecillos Ruiz	Round-Trip Translation: A New Path for Automatic Program Repair using Large Language Models	Leon Moonen	Anastasiia Grishina, Max Benjamin Hort	Kungliga Tekniska Högskolan
Gard Pavels Høivang	DiffMet: Diffusion models and deep learning for precipitation nowcasting	Hugo Hammer	John Bjørnar Bremnes, Michael Riegler, Nikki Vercauteren	UiO
Håkon Olav Torvik	Towards Understanding Robustness of Neural Networks Using Local Learning Rules	Mikkel Elle Lepperød	Anders Malthe-Sørenssen, Konstantin Holzhausen	UiO
Iver Håkonsen	GPU-enabled Laplace-Dirichlet Rule-Based Method for Cardiac Fiber Computations	James D. Trotter	Anne C. Elster	NTNU

Master's student	Title of thesis	Supervisor	Co-supervisors	Univ*
Jacob Henrik Hudtwalcker	Large Eddy Simulation of Turbulence in Helically Coiled Pipes: Effects of Mesh Strategy	Kristian Valen-Sendstad	Mikael Mortensen	UiO
Jonathan Kings	Constrained folding dynamics: A generalized model for labyrinth pattern development	Xing Cai	Eirik Grude Flekkøy	UiO
Katrine Moksheim	Lattice Sieving With G6K	Håvard Raddum	Morten Øygarden	UiB
Lars Hoel	Using Soccer Athlete GPS Monitoring Data to Visualize and Predict Features	Cise Midoglu	Pål Halvorsen	UiO
Leonie Schicketanz	Modeling and Simulation of the Fetal ECG	Hermenegild Arevalo	Axel Loewe	Karlsruhe Institute of Technology
Letizia Signorelli	Efficient Uncertainty Quantification and Sensitivity Analysis of Electrodiffusive Neuron Models	Marte Julie Sætra	Andrea Manzoni	Politecnico di Milano
Maria van der Reek Lidsheim	Introduction to Lattices and Its Applications in Compute-and-Forward Strategy	Hsuan-Yin Lin	Maiara Bollauf, Øyvind Ytrehus	UiB
Martin Kristiansen	Finite Element and Neural Network Solvers for Modelling Microcirculation	Kent-Andre Mardal	Miroslav Kuchta	UiO
Mathias Menkerud Sagbakken	Using Machine Learning to Predict Elite Female Athletes' Readiness to Play in Soccer	Pål Halvorsen	Cise Midoglu, Matthias Boeker, Jim Tørresen	UiO
Mikkel Haraldson Hiorthøy	Analyzing and Benchmarking the Performance of Different Cloud Services for Agile App Deployment	Cise Midoglu	Saeed Sabet, Pål Halvorsen	OsloMet
Mohammadreza Naderi	Learning Constraint-based Safety Models for Reinforcement Learning	Helge Spieker	Mohamed Bachir Belaid	Kharazmi University
Nhan Phan Thanh	Parallel Feature Selection Based on the Trace Ratio Criterion	Thu Thi Nguyen		Ho Chi Minh University of Science
Ole Algoritme	Transforming Facial Landmarks for Virtual Avatar Facial Animation	Steven Hicks	Michael Riegler, Pål Halvorsen	UiO
Palma Rud Persson	Tail-biting Codes for Lattice Wiretap Coding	Maiara Bollauf	Hsuan-Yin Lin, Øyvind Ytrehus	UiB
Robin Rognerud	AI-based clipping of booking events in soccer	Pål Halvorsen	Cise Midoglu, Steven Hicks	OsloMet
Rohullah Akbari	NLP-Based Automated Conspiracy Detection for Massive Twitter Datasets	Johannes Langguth	Daniel Thilo Schroeder, Konstantin Pogorelov, Andrey Kutuzov	UiO
Samaneh Taghizadeh	Benchmarking the User Experience of Different AI Talking Head Generation	Pål Halvorsen	Saeed Sabet, Pegah Salehi	OsloMet
Sander Krøglid	Building and evaluating a web-based tool for software benefits estimation and management	Jo Erskine Hannay	Magne Jørgensen	UiO
Sander Tekshov Norling	Short-term Precipitation Forecasting Using Deep Neural Nets	Hugo Hammer	Michael Riegler, Jim Tørresen,	UiO
Sara Pernille Jensen	Analysis of the Functional Role of Directed Simplicial Structures in Biological Neural Networks	Mikkel Elle Lepperød	Anders Malthe-Sørenssen	UiO
Tor Kristian Ellingsen	Algebraic Attacks on the Encryption Scheme HADESMiMC	Morten Øygarden	Håvard Raddum	UiB

Publications 2023

Articles in international journals

Telle Å, Trotter JD, Cai X, Finsberg H, Kuchta M, Sundnes J, Wall ST. **A cell-based framework for modeling cardiac mechanics.** Biomechanics and Modeling in Mechanobiology. 2023 Apr;22(2):515-39.

Thunold HH, Riegler MA, Yazidi A, Hammer HL. **A Deep Diagnostic Framework Using Explainable Artificial Intelligence and Clustering**. Diagnostics. 2023 Nov 9;13(22):3413.

Røed RK, Powell MB, Riegler MA, Baugerud GA. **A field assessment of child abuse investigators' engagement with a child-avatar to develop interviewing skills**. Child Abuse & Neglect. 2023 Sep 1;143:106324.

Pachev B, Arora P, del-Castillo-Negrete C, Valseth E, Dawson C. **A framework for flexible peak storm surge prediction**. Coastal Engineering. 2023 Dec 1;186:104406.

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Rognes ME. B**rains in motion - computational modelling of the brain's waterscape**. Fluid Mechanics, Combustion, & Engineering Physics Seminar, University of California San Diego, San Diego, US

Ellingsrud AJ. **Cell-based modelling of electrical and chemical interplay in excitable tissue**. Math 2 Product, Sicily, Italy

Ellingsrud AJ. **Cell-based modelling of electrical and chemical interplay in excitable tissue**. Microcard workshop, Strasbourg, France.

Ataman EA. **Constrained Multimodal Data Mining using Coupled Matrix and Tensor Factorizations**. Acceleration and Extrapolation Methods, ICERM, Brown University, Rhode Island, US

Jørgensen M. **Den gode eier av IT-utvikling i offentlig sektor**. Tromsø, Norge.

Yamashita A, Moonen L. **Do Developers Care About Code Smells? - Ten Years Later**. 30th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER).

Hannay JE. E**t skråblikk på dynamisk nyttestyring**. Direktoratet for forvaltning og økonomistyring (DFØ), Norway.

Storås A. **Explainable Artificial Intelligence and Dry Eyes**. Seminar at department of medical biochemistry, Oslo university hospital, Norway.

Ataman EA. **Extracting Insights from Complex Data: Constrained Multimodal Data Mining using Coupled Matrix and Tensor Factorizations**. IPAM Workshop on Explainable AI for the Sciences: Towards Novel Insights.

Jørgensen M. **Forskerblikk på offentlig digitalisering**. Finansdepartementet.

Schenker C, Wang X, Ataman EA. **Fusing Dynamic and Static Data Using Parafac2 Based Coupled Matrix and Tensor Factorizations**. SIAM Conference on Computational Science and Engineering

Lysne O. **Hvor forberedt er offentlige myndigheter og etater?** Attack-konferansen, Oslo Kongressenter, Norway

Jørgensen M. **Hvordan lykkes (bedre) med digitalisering av offentlig sektor**. Kunnskapsdepartementet, Norway.

Jørgensen M. **Hvordan står det til, og hvordan lykkes (bedre) med digitalisering av offentlig sektor**. Venstre, Venstres hus.

Oldfield N. **Improved Runtime and Fault-Detection in Quantum Software Testing through Factorized Program Specifications**. University of Oslo, Norway.

Moonen L. **It's the end of programming as we know it (and we'll be fine)**. Oslo Big Data Day, Norway.

Hellan O. **Learning mesh extension operators**. Oslo, Norway

Storås A, Sundgaard J. **Looking into Concept Explanation Methods for Diabetic Retinopathy Classification**. Workshop on Interpretability of Machine Intelligence in Medical Image Computing at MICCAI 2023.

Ellingsrud AJ, Sæatra MJ, Rognes ME. **Mathematical modeling of electrical, chemical and mechanical interplay in brain tissue**. Seminar UiO, Oslo, Norway.

Patón-Romero JD. **Métodos de Investigación en Ingeniería (Research Methods in Engineering)**. Unidad Central del Valle del Cauca (UCEVA), Tuluá, Colombia.

Patón-Romero JD. **Métodos de Investigación en Ingeniería (Research Methods in Engineering)**. Universidad Tecnológica de Xicotepec de Juárez (UTXJ), Xicotepec de Juárez, Mexico

Lepperød M. **Normative Modelling of Remapping in the Hippocampal Formation**. UCSD, San Diego, US.

Schenker C, Wang X, Ataman EA. **PARAFAC2-Based Coupled Matrix and Tensor Factorizations with Constraints**. 10th International Congress on Industrial and Applied Mathematics, ICIAM 2023, Tokyo, Japan.

Langguth J. **Parallel Incremental Clustering Algorithms for Massive Dynamic Graphs**. Bologna, Italy.

Rognes ME. **Perivascular pathways and the dimension-2 gap**. Scientific Computing Seminar, Brown University, Providence, Rhode Island, US.

Rognes ME. **Perivascular pathways and the dimension-2 gap**. CMOR Colloqium Series, Rice University, Houston, TX, US.

Rognes ME. **Perivascular pathways and the dimension-2 gap**. Numerical Analysis and Scientific Computing Seminar, Courant Institute, NY, US.

Cicic T. **Prosjekt "Robuste Nett": Tilbakeblikk på 10 år med målinger i norske mobilnett**. Oslo, Norway.

Cai X. **Quality control and innovation in computing and networking using the eX3 testbed**. SLICES Roadshow seminar.

Hannay JE. S**enter for Effektiv Digitalisering av Offentlig Sektor (EDOS)**. Helse Sørøst.

Jørgensen M. **Software development productivity: How much does it vary, why should we care, and how do we deal with it?** Kathmandu.

Hannay JE. **The Center for Effective Digitalization of the Public Sector (EDOS)**. SimulaMet, Oslo, Norway.

Causemann M. **The pulsating brain - a mathematical perspective**. Interpore Norway.

Causemann M. **The pulsating brain - a mathematical perspective**. Elaine Autumn School Rostock, Germany.

Langguth J. **Transitioning Scientific Computations to Novel AI Hardware: the Example of Cardiac Electrophysiology Simulations**. University of Tokyo, Japan.

Bozzetto M, Soliveri L, Remuzzi A, Valen-Sendstad K. **Transitional flow in AVF: is there a correlation between wall vibrations and stenosis development?** InVAS 2023: 13th Congress of the Vascular Access Society 2023 (pp. 1-1).

Spieker H. **Trustworthy AI: Scientific, Industrial, and Societal Impact**. OsloMet, Norway.

Lepperød M. **Understanding AI: Technical Insights, Neuroscience Lessons and Future Possibilities**. NMBU: Young NeuroAI workshop.

Lepperød M. **Understanding AI: Technical Insights, Neuroscience Lessons and Future Possibilities**. Simula Seminars: Exploring Norway's role in shaping future AI research.

Lepperød M. **Understanding AI: Technical Insights, Neuroscience Lessons and Future Possibilities**. AI Week OsloMet, Norway.

Dokken JS. **Checkpointing in DOLFINx**. Hotel Flamingo Resort, Pula (Cagliari), Italy.

Arouna A, Jonker M, Livadariu I.

Challenges on Working with DNS Data. https://ant.isi.edu/events/dinr2023/program.html

Isaku E. **Cost Reduction on Testing Evolving Cancer Registry System**. International Conference on Software Maintenance and Evolution (ICSME), Bogota, Colombia.

Pontes-Filho S, Nichele S, Lepperød M. **Critical Neural Cellular Automata. Workshop "The Distributed Ghost Cellular Automata, Distributed Dynamical Systems, and Their Applications to Intelligence"** at ALIFE 2023

Hellan O. **Deep Learning Mesh Motion Techniques with Application to Fluid-Structure Interaction and Shape Optimization**. Pula, Sardinia, Italy.

Lu C. **DeepScenario: An Open Driving Scenario Dataset for Autonomous Driving System Testing**. 2023 IEEE/ACM 20th International Conference on Mining Software Repositories (MSR).

Bjørnstad S. **Detecting activity using fibreoptic cable**. Windforce Baltic Sea 2023 Conference.

Sartaj H. **Digital Twins for Test Automation of IoT-based Healthcare Applications at Scale**. 10th UCAAT - User Conference on Advanced Automated Testing, Timisoara, Romania.

Lu C. **Evolutionary Computation and Reinforcement Learning for Cyber-physical System Design**. 2023 IEEE/ACM 45th International Conference on Software Engineering.

Raddum H, Våge HF. **Factoring RSA Keys Found in Certificate Transparency Logs**. Linz, Austria.

Lysen O. **Forskningssamarbeid med Kina innen telekom - Hvorfor, hvorfor ikke og hvordan?** OsloMet, Norway.

Li L, Yan S, Bakker BM, Hoefsloot H, Horner D, Chawes B, Rasmussen MA, Smilde AK, Ataman EA. **From static to dynamic - how to analyze postprandial metabolomics data?** Nordic Metabolomics Conference.

Sartaj H. **HITA: An Architecture for System-level Testing of Healthcare IoT Applications**. European Conference on Software Architecture (ECSA), Istanbul, Turkey.

Oldfield N. **Improved Runtime and Fault-Detection in Quantum Software Testing through Factorized Program Specifications**. Oslo Metropolitan Univerity, Norway.

Hellan O. **Learning a Mesh Motion Technique with Application to Fluid-Structure Interaction and Shape Optimization**. Lisbon, Portugal.

Lu C. **Learning configurations of operating environment of autonomous vehicles to maximize their collisions**. 2023 IEEE/ACM 45th International Conference on Software Engineering.

Mykleblust L, Uv JJ, Maleckar M, Arevalo H. **Maximum Fibrosis Affects Reentry Morphology in 3D Ventricular Models**. Computing in Cardiology.

Mykleblust L. **Maximum Fibrosis Affects Reentry Morphology in 3D Ventricular Models**. Computing in Cardiology.

Daversin-Catty C, Dean JP, Rognes ME, Wells GN. **Mixed-Domain Coupled Finite Elements in FEniCSx**. SIAM CSE23 - Amsterdam, the Netherlands.

Sæatra MJ. **Neural activity induces strongly coupled electro-chemo-mechanical interactions and fluid flow in astrocyte networks and extracellular space**. 32nd Annual Computational Neuroscience Meeting.

Ali, S. **On the Need of Quantum-oriented Paradigm to the Quantum Programming**. 2nd International Workshop on Quantum Programming for Software Engineering.

Wu J. **On the Preferences of Quality Indicators for Multi-Objective Search Algorithms in Search-Based Software Engineering (Hot Off the Press track at GECCO 2023)**. Lisbon Portugal.

Oldfield N. **Quantum Computing - an army of Schrödinger's cats is heading our way**. Oslo Spektrum, Norway.

Ali S, Yue T. **Quantum Software Testing: A Brief Introduction**. 2023 International Conference on Software Engineering

Wang X. **QuCAT: A Combinatorial Testing Tool for Quantum Software**. the 38th IEEE/ACM International Conference on Automated Software Engineering (ASE 2023) in Luxembourg.

Bozzetto M, Soliveri L, Remuzzi A, Valen-Sendstad K. **Wall vibrations in the arteriovenous fistula for hemodialysis: a novel mechanobiological stimulus?** ESAO2023 - 49th Annual Congress of the European Society for Artificial Organs, Bergamo.

Ali S. **Reflections on Quantum Software Testing.** Annual meeting of the IFIP Working Group on Foundations of Quantum Computation (WG 1.11 / 2.17).

Lu C. **Supporting the Evolution of Autonomous Driving Systems**. Simula Research Laboratory, Oslo, Norway.
Lu C. **Test Scenario Generation for Autonomous Driving Systems with Reinforcement Learning**. 2023 IEEE/ACM 45th International Conference on Software Engineering.

Sartaj H. **Testing Real-World Healthcare IoT Application: Experiences and Lessons Learned**. 31st ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE '23).

Kvalsund M, Ellefsen KO, Glette K, Pontes-Filho S, Lepperød M. T**he distributed neocortex: How neuroscience can inspire distributed AI systems**. Workshop "The Distributed Ghost Cellular Automata, Distributed Dynamical Systems, and Their Applications to Intelligence" at ALIFE 2023.

Yamamoto K, Bruneau D, Steinman D, Valen-Sendstad K. **The effects of cerebrospinal fluid and hyperelastic model on aneurysm wall vibration using high-fidelity fluid-structure interaction simulations**. Summer Biomechanics, Bioengineering, and Biotransport Conference.

Ali S. **Towards Quantum Software Requirements Engineering**. 3rd International Workshop on Quantum Software Engineering and Technology.

Ali S. **Uncertainty Unveiled: Identifying and Classifying Industrial Cyber-Physical Systems' Uncertainties for Testing**. Shonan Seminar on DevOps for Cyber-physical Systems

Ali S. **Uncertainty-wise Model Evolution with Genetic Programming**. Uncertainty-wise Model Evolution with Genetic Programming.

Posters

Sætra MJ, Mori Y. **An electrodiffusive network model with multicompartmental neurons and synaptic connections**. Electrodiffusive network model. The Bernstein Network, 2023.

Sætra MJ, Mori Y. **An electrodiffusive network model with multicompartmental neurons and synaptic connections**. Electrodiffusive network model. Society for Neuroscience, 2023.

Causemann M, Enger R, Rognes ME. **Computational Modeling of Astrocyte Endfeet: Insights into their Mechanical Buffering Function**.

Li L, Yan S, Bakker BM, Hoefsloot H, Chawes B, Rasmussen MA, Smilde AK, Ataman EA. **Fusion of static and dynamic metabolomics challenge test data: Capturing metabolic differences between fasting and postprandial states**. Nordic AI meet 2023.

Li L, Yan S, Bakker BM, Hoefsloot H, Chawes B, Rasmussen MA, Smilde AK, Acar E. **Fusion of static and dynamic metabolomics challenge test data: Capturing metabolic differences between fasting and postprandial states.** NuGOweek 2023.
Reinke A, Riegler M. **Metrics Reloaded**. Neurips Medical 2023.

Hauge E, Sætra MJ, Einevoll GT, Rognes ME, Halnes G. **Neuronal synchronization through electrochemical ephaptic coupling**. Bernstein Conference, 2023 Berlin, Germany.

Arouna A, Livadariu I, Khanyari AL, Elmokashfi A. **On Large-Scale IP Service Disruptions Dependencies**. In2023 19th International Conference on Network and Service Management (CNSM) 2023 Oct 30 (pp. 1-5). IEEE.

Kjedelsborg H. **On the Assumption of Rigid Walls in Atrial Fibrillation Patients; Implications for Prediction of Hemodynamics and Thromboembolic Indicators**. 18th International Symposium on Computer Methods in Biomechanics and Biomedical Engineering

Danieli K, Fyhn M, Lepperød M. **Online and memory-driven navigation through neuromodulation-based synaptic plasticity**.

Schenker C, Wang X, Acar E. **Parafac2-Based Coupled Matrix and Tensor Factorizations**. InICASSP 2023-2023 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2023 Jun 4 (pp. 1-5). IEEE.

Uv J, Myklebust L, Arevalo HJ. **PO-01-207 Vernix Caseosa Distribution Modulates Non-Invasive Fetal ECG Signal: A Computational Study**. Heart Rhythm. 2023 May 1;20(5):S160.

Public Outreach

Sætra MJ. **Hjerneprat med Marte Julie Sætra og Gaute Einevoll - Del 2.**

Sætra MJ. **Hjerneprat med Marte Julie Sætra og Gaute Einevoll - Del 3.**

Lynnebakken H, Lepperød M, Schøyen V. **Hvordan holder hjernen orden på hvor du er? Ny kunnskap skal gi bedre KI**.

Riegler M, Lepperød M, Røstad L. **Norge som fanebærer for etikk i en uforutsigbar framtid.**

Lysne O. **Panel discussion on "Skyggekrigen".**
Sætra MJ. Paneldeltager i Abels tårn. **Vil vi kunne gjøre opptak av våre drømmer i fremtiden?**

Sætra MJ. **Paneldeltager i Abels tårn. Påvirker sovestilling hjernens utvikling?**

Lysne O. **Participation in "Abels Tårn".**

Bruaset AM, Ali S, Brodtkorb A, Bøe G, Denysov S, Eide H, Selstø S. **QCNorway: Contributions Towards a Norwegian Quantum Computing Strategy**

Lysne O, Riegler M. **Vil Sam Altman ha tilgang til dataene våre?**

Miscellaneous

Sartaj H. **APD-DT: A Tool to Generate and Operate Digital Twins of Medicine Dispensers.**

Dokken JS, Baratta IA, Dean JP, Habera M, Hale JS, Richardson C, Rognes ME, Scroggs MW, Sime N, Wells GN. **DOLFINx: The next generation FEniCS problem solving environment.**

Causemann M. **EMI-Meshing: High-quality extracellular-membrane-intracellular meshes of the mouse visual cortex.**

Dang-Nguyen D, Khan S, Midoglu C, Riegler M, Halvorsen P, Dao M. **Grand Challenge On Detecting Cheapfakes.**

Bjørnstad S, Tysdal A, Lammenes C. **Increasing Availability of Subsea Telecom Infrastructure Through Monitoring Vibrations in Optical Fibre Subsea Cables.**

Sarkhoosh MH, Dorcheh SMM, Gautam S, Midoglu C, Sabet SS, Halvorsen P. **Soccer on Social Media.**

Board and management 2023
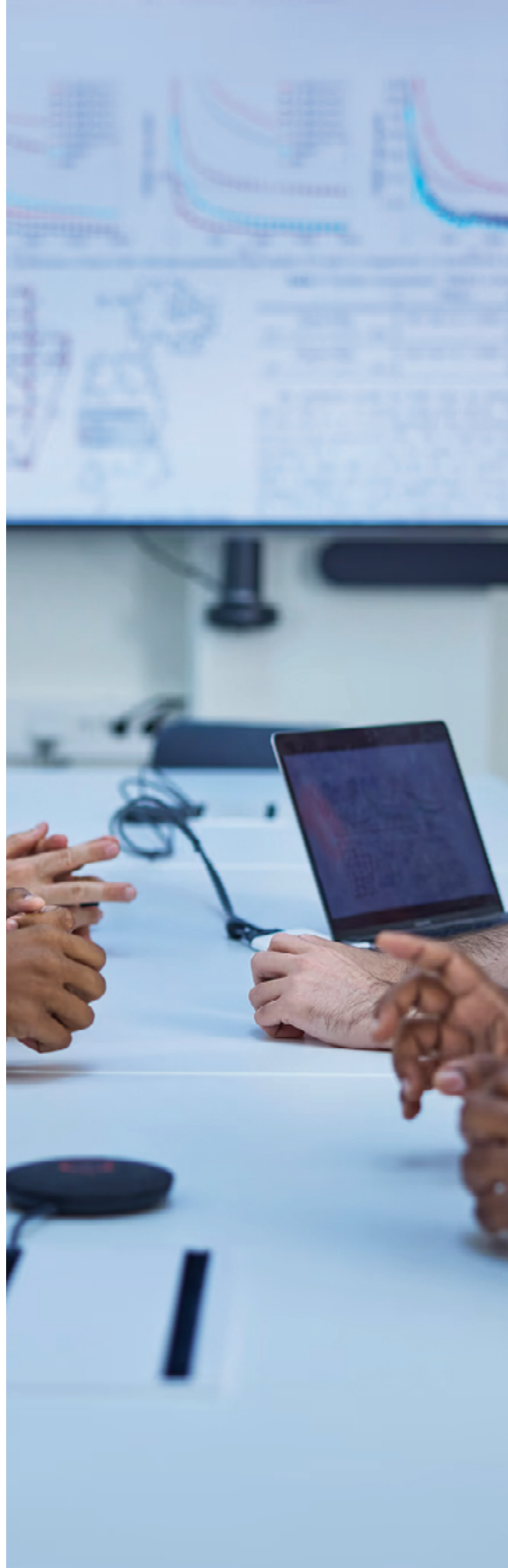
Board of directors

Chair of the Board:
- Ingvild Myhre, Chair of the Board

Board members:
- Hilde Brunvand Nordvi
- Ingolf Søreid
- Maria Korkunc
- Mats Lundqvis
- Lasse Olsen
- Pinar Heggerne
- Ada Johanne Ellingsrud (employee representative)
- Are Magnus Bruaset (employee representative)
- Jan Helgesen, deputy

Management group

- Lillian Røstad, managing director
- Joakim Sundnes, director of SRL research
- Ottar Hovind, director of Simula Innovation
- Carlos Cid, director of Simula UiB
- Olav Lysne, director of SimulaMet
- Marianne Sundet, deputy director of SimulaMet
- Holger Hussmann, director of Simula Consulting
- Monica Eriksen, CFO
- Maria Benterud, director of administration, SRL
- Rachel Thomas, director of Simula Academy
- Are Magnus Bruaset, research director