
SIMULA 2025
2025







SIMULA 2025

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SIMULA

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MANAGING DIRECTOR'S REPORT

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Lillian Røstad



2025 was a year with big opportunities for development, and Simula has truly made the most of them. At the same time, we find ourselves in a time period marked by geopolitical unrest, where the value of knowledge based on research and technological insights is greater than perhaps ever before. Here, we have a key role and a responsibility to contribute.

In April 2025, the results from the national evaluation of research groups within mathematics, ICT, and technology (EVALMIT) were published. Simula received exceptionally good feedback. It was highlighted, among other things, that Simula delivers at the highest possible level within our three areas of responsibility: research, education, and innovation. The evaluation committee also concluded that the research at Simula has very high relevance and meaningful societal impact.

A comprehensive evaluation process like EVALMIT provides valuable insight and useful input for improvement. This input was the foundation for a strategy process in the spring of 2025. In June 2025, the board approved Simula's revised strategy.

We carry the fundamental principles and values of Simula into this strategy. Simula will continue to be an excellent research organisation, to educate highly qualified candidates, and strive to innovate from our research. In addition, it emphasises the importance that an independent research organisation, such as Simula, contributes as an advisor to the government within our areas of expertise. Rarely has the need for research-based knowledge and verifiable facts been greater and this is a responsibility we have. The strategy highlights three areas where Simula will contribute to solving important needs in society: creating the future of healthcare technology, building technology for societal resilience and security, and enabling society to benefit from emerging technologies like artificial intelligence and quantum technology.

In June 2025, the six national research centres for artificial intelligence were announced. Simula was awarded the "Centre for Sustainable, Risk-Averse and

Ethical Artificial Intelligence” (SURE-AI). The centre is led by Baltasar Beferull-Lozano and has an interdisciplinary focus. SURE-AI will be established at Simula for a five year period, with a number of national and international partners from industry and academia.

In December 2025, Simula was awarded two of the four national research centres for quantum technology. Simula Research Laboratory hosts “The Norwegian Quantum Software Centre” (NorQSoft) led by Shaukat Ali. Simula UiB hosts “The Centre for Quantum Communication Networks and Applications” (QCNA) led by Carlos Cid.

Closer collaboration with the private sector is a goal we have been working towards for several years. In 2025, Simula was awarded five new innovation projects in close collaboration with industry. What these projects have in common is that they, in large part, have to do with using artificial intelligence for improved productivity and efficiency.

With 2026 now upon us, Simula has a solid financial basis and a large, varied portfolio of research projects. In 2026, we are focused on getting a good start to these projects, and ensuring the continued excellent research, education, and innovation that contributes to solving important problems for society.



Lillian Røstad
Managing Director

REPORT OF THE BOARD OF DIRECTORS

Simula Research Laboratory AS aims to conduct fundamental long-term research in selected areas within information and communication technology (ICT) and through this contribute to innovation for society.

ADMINISTRATION AND ORGANISATION

Simula Research Laboratory (SRL) is organised as a limited company owned by the Ministry of Education and Research. The company combines academic traditions with governance models known from the business sector. In 2025, SRL had three subsidiaries that are 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 Centre for Digital Engineering AS (SimulaMet) is owned by SRL (51%) and OsloMet - Oslo Metropolitan University (49%). The former wholly-owned subsidiary Simula Consulting AS was merged into SRL effective 1 January 2025

The parent company and its subsidiaries cooperate closely. The majority of the companies are located in central Oslo (Tullinløkka and Bislett). Simula UiB is located in Bergen.

ACTIVITIES

Simula conducts high-quality research that is outstanding and goal-oriented, with great relevance and social value. Simula maintains strong and strategic partnerships with leading universities and research groups, both nationally and internationally. We provide independent, research-based advice to

Norwegian authorities on risks and opportunities associated with new technology, and educate the next generation of researchers and technology leaders who meet society's needs. Simula promotes an informed public conversation by sharing our knowledge and expertise, and cooperates closely with the business sector and public sector to translate knowledge into innovation and social benefit. We foster an innovation culture that enables the commercialization and dissemination of research results by transforming ideas into working solutions.

Throughout 2025, Simula has reaped the rewards of the past years' targeted restructuring and consolidated its position as a national powerhouse for research, education, and innovation in future technology. The broad mobilization towards the government's focus on artificial intelligence paid off, and Simula was awarded the hosting of one of the six national AI centers, in addition to being a partner in two others. In December, Simula was awarded two of four national quantum centers. These awards confirm Simula's role as a key contributor to a safer and more innovative digital society. Following the successful financial turnaround over the last few years, we have now established a robust economic platform that enables long-term investments in areas such as security, quantum technology,

artificial intelligence, and future health technology. By the end of 2025, Simula stands strong, with an operating model that ensures both financial sustainability and the ability to translate research of the highest international class into real societal benefit. Significant effort has also been made in developing activities aimed at commissioned research and IPN projects in close cooperation with the business sector. Throughout 2025, Simula was awarded several new projects from both the RCN (NFR) and the EU.

In 2025, 102 articles were published in international journals, 1 book, and 94 peer-reviewed conference articles.

Simula's scientific staff supervised 16 candidates to a completed doctoral degree and 43 students to a completed master's degree in 2026. From 2001 up to and including 2025, a total of 219 candidates have been supervised to a doctoral degree and 686 students supervised to a master's degree at Simula.

OsloMet, the University of Bergen, and the University of Oslo are the most important academic partners and degree-granting institutions for PhD students employed at Simula.

By the end of 2025, Simula Innovation AS was a co-owner in 30 early-stage and growth companies. These companies had a total turnover of close to NOK 450 million and approximately 250 employees. In addition, Simula Innovation held ownership in two listed companies on the Norwegian and Swedish stock exchanges, respectively.

PERSONEL AND HSE

As of December 31, 2025, the Simula Group had a total of 180 employees, of which 159 were full-time and 21 were part-time employees. Of the full-time employees, 115 were men and 44 were women, and Simula had 18 part-time men and 3 part-time women. Of the total number of employees, 89 were Norwegian and 91 were foreign citizens. 69 people were employed in recruitment positions – 24 in postdoc positions and 45 in PhD student positions. In addition, 26 external PhD students are supervised by Simula's researchers.

By the end of 2025, Simula Research Laboratory had a total of 117 employees, of which 107 were full-time and 10 were part-time employees. Of these, 84 were men and 33 were women.

Simula will continue its focus on long-term HSE work. Sickness absence in 2025 was 3.96% for the Group and 3.52% for SRL. The Group has actively worked to keep sickness absence low and this work will be continued in the future. We work especially on close follow-up of the psychological work environment. No work-related diseases or accidents were reported during the year.

Simula became subject to the Security Act in 2024. IT security and adaptation of routines in accordance with the Security Act and a constantly changing geopolitical landscape have been important focus areas in 2025. Simula had no security incidents in 2025 with negative consequences. War and conflict influence risk assessments, and continuous work is being done to strengthen information security. Simula has carried out extensive work on mapping values to ensure that we comply with the procedures and mandates resulting from the Security Act and the Act on the Export of Knowledge. In 2025, the Norwegian National Security Authority (NSM) conducted an audit of Simula's compliance with the Security Act. No significant negative findings were made in the audit.

HSE is reported at every board meeting. Regular updates on employee welfare, employee surveys, and implemented measures are provided in the Group Management Team (KL) meetings, and the KL also conducts an annual management review of HSE.

Simula's operations do not pollute the external environment beyond what is normal for an office business. For 2025, the goal was a 2% reduction in emissions within Scope 2 (indirect greenhouse gas emissions from the purchase of energy, primarily electricity and district heating). The result for the year showed a decrease of a total of 10.71% compared to 2024. This positive development is primarily due to the optimization of air conditioning operating hours during holiday periods. Within Scope 3 (Category 1: purchase of electronics, Category 6: business travel, and Category 7: commuting), Simula achieved an emission reduction of 8.91% in 2025. The savings are due to a reduction in the number of flights and increased use of digital collaboration tools.

EQUALITY AND INTEGRATION

The Group works to promote the purpose of the Anti-Discrimination Act by promoting equality, securing equal opportunities and rights, and

preventing discrimination in the business. Starting with the 2020 financial year, Norwegian employers and public authorities have an enhanced duty to work with equality and non-discrimination, as well as account for this work and the actual situation. The statement is published in Simula's annual report under "The Equality Statement, Social Responsibility, and Working Environment." Simula is subject to the requirements of the Transparency Act (Åpenhetsloven). We have continued working on due diligence assessments in 2025 and will account for this work by June 30, 2026. An updated version will be published on our website.

37 different nations are represented in the Simula Group, and 51% of the Group's employees come from countries outside Norway. Simula offers Norwegian courses, social events, and support regarding visas, tax, and housing, as well as other administrative matters for relocating employees.

At the end of 2025, the proportion of women in scientific positions—the average for recruitment positions such as PhD students, postdocs, and scientific staff with primary positions at Simula — was 20%. The proportion of women among scientific staff with primary positions at Simula was 17%, and for recruitment positions, the proportion of women at year-end 2025 was 23%. Simula's goal is to achieve a 40% proportion of women in the entire Simula Group. At the end of 2025, this proportion of women was 26%. To reach the goal of 40% female employees, Simula will continue to focus on measures for both the recruitment of new, talented female candidates and the visibility, development, and adaptation of work situations for qualified women already employed at Simula.

ETHICS

Simula follows ethical guidelines summarized in a separate document, "The Simula Code of Ethics." The document also addresses research ethics, based on the premise that Simula is an institution that places strong emphasis on values such as truth and the pursuit of truth. The institution's reputation depends on outsiders being able to trust that the research results are correct and have been produced in a verifiable and ethically sound manner. Regarding research ethics, Simula's researchers must comply with the guidelines issued by the National Committee for Research Ethics in Science and Technology (NENT). In addition, all Simula employees must comply with Simula's own guidelines for scientific publishing. These guidelines

are based on the Vancouver Convention.

FINANCIAL RISK

Simula is exposed to financial risk related to the Group's equity investments. The investments are distributed across 30 different companies, which are primarily unlisted and for which no observable market prices exist. The value of the individual investments and the portfolio as a whole is assessed every four months (tertil). The valuation is based on assessments of the individual company's development, including earnings development, capital requirements, market conditions, financing situation, and future prospects. Accounting write-downs are made if there is significant uncertainty related to the value of the investments.

By the end of 2025, the cost price of Simula's investments is 52.4 million, and write-downs of 20 million have been made, so that the net book value of Simula's investments is 32.4 million. In addition, there are investments of 9.2 million made on behalf of Innovasjon Norge AS, where Simula bears no risk.

There is also some currency risk associated with the EU projects Simula participates in and some financial risk related to surplus liquidity placed in funds. By the end of 2025, the book value of placed funds is 45 million. The funds are placed in accordance with the investment mandate adopted by the Board.

Based on the fact that Simula has invested in a diversified portfolio and conducts continuous valuations, the Board assesses the overall financial risk as low. Credit risk and liquidity risk are assessed as low, and the Board concludes that the risk for the business in general is low.

FINANCIAL DEVELOPMENT

In recent years, Simula has taken several steps to reverse the negative financial situation the Group was in. Targeted work has been done to secure future income while introducing cost-reducing measures where necessary. In 2025, we clearly see the result of the work carried out across the entire Group, and the finances have significantly improved.

In 2025, the Group had a turnover of NOK 300 million, compared to 285 million in 2024, an increase of 5%. The operating result was a profit of 4.2 million, compared to a budgeted operating deficit of 3.1 million. Net financial items are positive at 14.8 million, and the net profit for the year after tax is 19 million.

The Group's total cash flow was 8.5 million. The Group's liquidity reserves were NOK 93.5 million as of December 31, 2025. The Group's ability to self-finance investments is good. The Group's short-term liabilities constituted 91% of the total debt in the Group at year-end. The Group's financial position is good, and at year-end, the Group can repay short-term debt using the most liquid assets.

The operating revenues of Simula Research Laboratory AS were NOK 211 million. External project funding totaled NOK 140 million. The net profit for the year was 15.4 million kroner, which is transferred to other equity. The equity in Simula Research Laboratory AS amounts to NOK 93.7 million, corresponding to an equity ratio of 55% of total assets. The total cash flow in Simula Research Laboratory AS was negative at 1.5 million kroner.

The operating revenues of Simula Innovation AS were NOK 0.2 million, net financial income was NOK 7.9 million, and the net profit for 2025 was NOK 4.7 million. Equity amounted to 48.4 million, which gives an equity ratio of 78%.

The operating revenues of Simula UiB AS were NOK 31 million, and the net profit for 2025 was NOK 2 million. Equity amounted to 11.2 million, which gives an equity ratio of 61%.

The operating revenues of Simula Metropolitan Center for Digital Engineering AS were NOK 74.9 million, and the net profit for 2025 was NOK 0.9 million. Equity amounted to 16.1 million, which gives an equity ratio of 52%.

The former wholly-owned subsidiary Simula Consulting AS was merged into Simula Research Laboratory AS.

FUTURE DEVELOPMENT

The Board believes that the annual accounts provide a correct picture of Simula Research Laboratory AS and the Group as a whole. Equity in the individual companies and in the Group has improved during 2025.

At the start of 2026, Simula has a solid portfolio of long-term projects that lay the foundation for economic stability in the coming years.

In accordance with Section § 3-3a of the Accounting Act, it is confirmed that the assumptions of a going concern are present, and this has been used as a basis for preparing the annual accounts.



The Board, from the left: Lasse Olsen, Are Magnus Bruaset, Astrid Rusås Kristoffersen, Pinar Heggernes, Mats A. Lundqvist, Lena Korsnes, Ingolf Søreide, Lillian Røstad, Liv Dingsør, and Paul Chaffey.

THE BOARD'S WORK

The Board is informed that Simula has taken out board liability insurance limited upwards to NOK 40 million. Information on the main features of the insurance coverage has been provided to all board members.

Simula's Board has held four meetings in 2025. The Board hereby thanks all employees for their efforts during the year.

Oslo, 5th of March 2026

Astrid Rusås Kristoffersen, chair of the Board	Lasse Olsen, Board member	Pinar Heggernes, Board member
Lillian Røstad, managing director	Liv Dingsør, Board member	Lena Korsnes, Board member
Ingolf Søreide, Board member	Mats Lundqvist, Board member	Are Magnus Bruaset, Board member
	Paul Chaffey, Board member	

COMPANY OVERVIEW

2025

Simula consists of four 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 organise the company's expanding activities in research, education, and innovation. The companies are summarised 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 artificial intelligence, software engineering, scientific computing and cyber security. SRL also manages researcher training (Academy).

Director of Scientific Computing: Joakim Sundnes

Director of Software & AI: Are Magnus Bruaset

Director of Cyber Security: Jostein Jensen

Departments:

- Applied AI – Dept. Head: Holger Hussmann
- Computational Physiology (ComPhy) – Dept. Head: Hermenegild Arevalo
- Cyber Security Management Dept. Head: Jostein Jensen
- Data Driven Software Engineering Dept. (DataSED) – Dept. Head: Leon Moonen
- Engineering Complex Software Systems (ComplexSE) – Dept. Head: Shaukat Ali
- High Performance Computing (HPC) – Dept. Head: Thomas Roehr
- Numerical Analysis & Scientific Computing (SCAN) – Dept. Head: Ada Johanne Ellingsrud
- Validation Intelligence for Autonomous Software Systems (VIAS)– Dept. Head: Arnaud Gotlieb
- Simula Academy – Director: Rachel Thomas

Simula Metropolitan Center for Digital Engineering AS (SimulaMet)

Director: Klas Pettersen

Deputy director: Marianne Sundet

Location: Oslo (Bislett)

Ownership: 51% Simula Research Laboratory, 49% Oslo Metropolitan University

Research activities in artificial intelligence, communication systems, and the development and testing of large software systems. In addition to research, SimulaMet educates and supervises PhD and Masters' students at OsloMet, and contributes to innovation in society through collaboration, startup companies and licensing of research results.

Research Director: Sven-Arne Reinemo

Departments:

- Centre for Resilient Networks & Applications (CRNA) – Centre leader: Tarik Cicic
- Data Science and Knowledge Discovery (DataSci) – Dept. Head: Evrim Ataman
- EDOS – Effective Digitisation in the Public Sector – Centre leader: Magne Jørgensen
- Holistic Systems (HOST) – Dept. Head: Pål Halvorsen
- IT Management – Dept. & Centre head: Jo Erskine Hannay
- Signal and Information Processing for Intelligent Systems (SIGIPRO) – Dept. Head: Baltasar Beferull-Lozano

Simula UiB AS

Director: Carlos Cid

Location: Bergen

Ownership: 51% Simula Research Laboratory, 49% University of Bergen (UiB)

Simula UiB specialises in cyber security and conducts research and education in cryptography and information theory. Simula UiB collaborates with the University of Bergen, among other things through the supervision of master's students and teaching.

Departments:

Cryptography – Dept. Head: Martijn Stam

Information Theory – Dept. Head: Eirik Rosnes

Simula Innovation AS (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 KEY FIGURES

2025

Solving fundamental problems in
ICT that benefit society.

REVENUE

300 MNOK

EMPLOYEES

180

PROJECT SUCCESS RATE BY RCN

36 %

REVENUE SHARE FROM INDUSTRY
PROJECTS

18 %

NATIONALITIES

37

PROJECT SUCCESS RATE BY EU

31 %

PUBLICATIONS (PEER REVIEWED)

197

SIMULA RESEARCH

Simula's research is primarily focused on five ICT areas: artificial intelligence, communication systems, cyber security, scientific computing, and software engineering. The research takes place at Simula Research Laboratory, SimulaMet, and Simula UiB, in close collaboration with national and international partners.

SIMULA RESEARCH LABORATORY (SRL)

SRL's research is focused on the subject areas of Scientific Computing, Software Engineering, and Cyber Security.

Researchers working with scientific computing develop advanced simulation tools based on mathematical models and high-performance computing. Computational models of this type are central tools in all branches of science and technology, and we work to make the models more accessible, accurate, and efficient. One of Simula's main interests is to develop models for use in physiology and medicine, with a special focus on processes in the heart and brain. The models have the potential to be used in patient treatment and to provide increased understanding of important health problems such as heart failure, stroke, and dementia.

Several new research projects have started in scientific computing in 2025. Arguably, the most high-profiled one is "SURE-AI", one of six new national research centres on artificial intelligence, funded by the Research Council of Norway (RCN). The centre is led by Baltasar Beferull-Lozano at SimulaMet, with Thomas Surowiec from scientific computing as deputy director.

Other new projects include "Fenics in the Wild" (2025-2026), funded by The Wellcome Trust under the Essential Open Source Software for Science (EOSS) program, "Mathematical Challenges in Brain Mechanics" (2025-2026), funded by the Center for Advanced Study, "LaVa: The Latent Variable Proximal



On June 11, 2025, the Government launched the six national AI centres. SRL and SimulaMet, led by centre director Baltasar Beferull-Lozano, were awarded the centre "SURE-AI".

Point Method" (2025-2029), funded by the FRIPRO program of the RCN, and "HubMOL: Hub Molecules of Metabolism and Signalling – Key regulators of Life" (2025-2028), Marie Skłodowska-Curie Actions Doctoral Network funded by Horizon Europe.

Through the year we also saw the successful completion of several ambitious research projects, including "EMIX" (2021-2025), working at the interface between computational mathematics and brain mechanics, "Microcard II" (2024-2025), building multiscale computational models for the heart, and "SimCardioTest" (2021-2025), an EU funded project aiming to validate *in silico* models as testbeds for drugs and medical devices.

One of Simula's main interests is to develop models for use in physiology and medicine, with a special focus on the heart and brain.

Based on the national infrastructure for experimental research in high-performance computing, eX3, Simula participates in the development of SLICES - a European infrastructure for experimental ICT research. Together with Inria, which is also a SLICES partner, we are participating in the EU project "Online Data Intensive Solutions for Science in the Exabytes Era" (ODISSEE) which started in January 2025. This project pilots an efficient processing chain for the enormous amounts of data that will be harvested from the world's largest scientific instruments, the Square Kilometer Array and the High Luminosity Large Hadron Collider at CERN.

Our researchers within the field of software engineering work with 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.

Within software engineering, our researchers are very active participants and leaders of European research projects. Among others, we take part in the MSCA network for doctoral education "Hybrid and Generative Intelligence for Trustworthy Autonomous Cyber-Physical Systems" (InnoGuard) and the project "Security enhancement through heterogeneous data fusion and improved AI/ML-powered Copernicus maritime and border surveillance services" (AI4COPSEC). This project, which is coordinated by Simula, demonstrates the potential of using advanced machine learning to further develop Copernicus services for enhanced European security. Artificial intelligence is central to several ongoing projects, including those related to sustainability and the green shift in the Maritime sector, and to reliability in connection with autonomous vehicles. At the end of the year, our researchers within software engineering were awarded three new projects from Horizon Europe. These projects will start in the first half of 2026.

In recent years, Simula has taken a central role in international research on how to develop and verify 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 force in 2025, including in the Nordic project NordiQuEst and in the EuroHPC project LUMI-Q. At the end of the year, we also were granted one of the four new national research centres for quantum technology, the "Norwegian Centre for Quantum Software" (NorQSoft), to be inaugurated in May 2026.

In 2025, a cyber security division was established to address the challenges of an increasingly complex digital threat landscape and the state of geopolitics. Building on our international, recognised expertise in cryptography, robust networks, and technology development, we increased our research capacity within cyber security with the goal to produce the technical knowledge needed for resilient societies, with critical digital infrastructure that is safe and secure in the years to come.

SIMULA METROPOLITAN CENTER FOR DIGITAL ENGINEERING (SIMULAMET)

SimulaMet's research is specialised in Communication Systems, Artificial Intelligence, as well as IT Management.

Within communication systems, researchers at SimulaMet develop methods to exploit the opportunities offered by modern communication systems while mitigating the associated risks of modern communication systems. The aim is to make digital infrastructure more robust and secure, and to develop advanced applications that can be deployed both now and in the future. In addition, interactions between these systems and society are studied in order to provide knowledge that can inform government policy. Work on robustness and security in communication systems was further strengthened in 2025 through new activities related to national preparedness and total defence, including continued advisory work and commissioned research connected to the introduction of a new nationwide emergency communication network.

Our researchers at SimulaMet develop methods to exploit the opportunities offered by modern communication systems while mitigating the associated risks of modern communication systems.

Furthermore, a quantum initiative was established through participation in "QCNA (Centre for Quantum

Communication Networks and Applications)”, which focuses on quantum communication and future hybrid classical–quantum networks.

The research program Center for Resilient Networks and Applications (CRNA) is funded by the Ministry of Digitalisation and Public Governance and holds a mandate to report annually on the condition of Norway’s mobile networks. The 2024 report, released in spring 2025, shows that Norwegian mobile networks maintain a high standard of stability and performance, with a trend towards speed growth beginning to plateau as the rollout of 5G is completed in central areas. The report also documents a significant improvement in the quality of low Earth orbit satellite broadband provided by Starlink, which now delivers latency close to one tenth of that of traditional geostationary solutions. Within artificial intelligence, research is focused on the mathematical foundations of machine learning, the experimental study of machine learning algorithms, and the application of machine learning in areas of high societal relevance, including sport, health and software engineering. The field was strengthened in 2025 through several large projects funded by the Research Council of Norway.

SimulaMet was awarded funding to establish and lead the national AI centre “SURE-AI”, and is also a partner in the AI centres “MishMash” and “AID”. Together, these centres contribute both to the development of fundamental AI and to the deployment of robust and responsible AI in applications of significant societal importance. In addition, SimulaMet was awarded funding for the project “DRIVE (Brain-driven Remote Collaborative Physical Work)” and a partner role in “PREMAL (Practical Encrypted Machine Learning)”.

Within IT management, research addresses the development, continuous improvement and decommissioning of IT solutions. Through the research programme EDOS – Effective Digitalisation of the Public Sector, funded by the Ministry of Digitalisation and Public Governance, studies and analyses provide knowledge on effective digitalisation in the public sector and input on how processes and methods for developing digital solutions can be improved. EDOS also delivers research-based advisory services to the Ministry of Digitalisation and Public Governance and public sector organisations. In 2025, EDOS contributed with research findings on how the public sector



succeeded in implementing large-scale digitalisation during the Covid period, when solutions had to be delivered within weeks rather than over several years. EDOS has also contributed knowledge on improved benefits management, including adaptive benefits management, as well as the use of alternative financing models for investments in digitalisation.

SIMULA UIB

Simula UiB's research is specialised in Applied Cryptography and Information Theory.

Simula UiB's researchers study techniques within these two fields that can be used to provide secure, efficient, and reliable communication, storage and computation. The results of this research make it possible to create new applications for confidential and reliable communication and computation, data storage, machine learning, and collaboration between parties that do not fully trust each other, both in classical systems and in emerging quantum scenarios. In 2025, Simula UiB's research focused on two main themes: privacy-enhancing techniques for AI and secure and reliable communication in the quantum era.

The expanding range of AI applications calls for new

Simula UiB researchers study techniques within these two fields that can be used to provide secure, efficient, and reliable communication storage and computation.

mechanisms to protect the privacy of users and their data. Privacy-enhancing technologies are therefore a key research area at Simula UiB, with contributions in topics such as private and distributed machine learning, secure computation and data sharing, and fully homomorphic encryption (FHE). Activities in this area include the RCN project "PeerL (Private and Efficient Distributed Learning)", and Simula UiB is also a partner in the "SURE-AI Centre", a national AI centre established in 2025, with research contributions in the area of privacy-preserving machine learning. Two additional projects in the area of privacy-enhancing technologies were selected for funding in 2025: "SECSHARE-BIOMETRICS", a project investigating FHE-based techniques for enabling user-controlled, shareable biometrics; and "PREMAL

(Practical Encrypted Machine Learning)", focusing on applications of FHE for privacy-preserving machine learning.

The emergence of quantum technologies presents both challenges and opportunities for secure communication. Large-scale quantum computers threaten existing public-key cryptography, while quantum phenomena enable new paradigms for secure and distributed communication. Addressing these developments is a central focus of Simula UiB's research on quantum communications and cybersecurity. In 2025, Simula UiB was awarded the "Centre for Quantum Communication Networks and Applications (QCNA)", one of the four national research centres for quantum technology. QCNA will focus on secure and reliable communication in the quantum era. The centre will launch in May 2026, will be hosted by Simula UiB, and led by its director, Carlos Cid. Awarded in 2025 and launching in 2026, another research project, "NISQEC", will be focusing on quantum error correction.

Simula UiB outreach activities aim at supporting a broader understanding and responsible deployment of quantum technologies. In 2025, researchers delivered three training sessions for industry on post-quantum cryptography (PQC) migration. In addition, Carlos Cid was appointed chair of the Standard Norge committee on quantum technologies, and serves as Norway's representative in the European (CEN/CENELEC) and international (IEC/ISO) standardisation efforts on quantum technologies.

Our researchers continued their engagement and collaboration with the broader research community in 2025. Several new partnerships were established through newly funded research projects. We hosted visiting researchers from Inria Paris, as part of the COSINUS Associate Team (which concluded in December 2025), and from the New Jersey Institute of Technology. In addition, Simula UiB organised ArcticCrypt 2025, an international cryptography conference held in Svalbard in July 2025.

SIMULA

EDUCATION

At Simula, high-quality research goes hand in hand with educating and training the next generation of researchers and technology experts. We achieve this through a range of activities, including intensive graduate-level courses, supervision of master's theses and doctoral dissertations, and continuing education and training opportunities for all employees.



SIMULA ACADEMY

Simula Academy is the core of Simula's educational activities, coordinating researcher training, professional development, and the supervision of master's and doctoral students. 2025 marked a period of intense activity, with the continuation of Simula's established flagship courses combined with the piloting of new courses and providers. We have also further developed our own internal course offerings.

SUPERVISION

High-quality academic supervision is a vital prerequisite for both well-being and excellent research. In 2025, the Academy organized a two-day retreat for supervisors of PhD students focused on further refining the definition of 'excellent supervision', how to provide constructive and effective academic feedback, and how supervisors can support their own well-being.

The traditional two-day retreat for PhD students and postdocs included sessions dedicated to

both academic supervision (*Mastering academic supervision*) and time management (*Taking control of your time: Juggling research, supervision, and everything else*). In addition, the seminar *Good Supervision of Master's Theses* was held for new supervisors, primarily researchers in the early career phase, to ensure high-quality supervision of master's students. These seminars included contributions from external instructors who themselves research supervision in higher education, and introduced the participants to concrete tools for effective supervision, as well as practices for giving constructive feedback on academic work.

Well-being and resilience is a continuous focus at Simula. Consequently, the Academy held several courses within these topics, including the workshops *Tools for building positive mindsets in Academia* and *Tools for sustainable time management*, as well as the 8-week programme *Building resilience in academia*, which was held in both the spring and autumn semester.

RESEARCHER COURSES AT SIMULA

In 2025, Simula held its two annual flagship courses for PhD students, both which are accredited and award ECTS credits: *Summer School in Computational Physiology* (10 ECTS) and *Communicating Scientific Research* (5 ECTS).

Summer School in Computational Physiology (SSCP) starts with 2 weeks of formal lectures and project work at Simula in June, followed by a stay at the University of California, San Diego (UCSD) in August. The stay at UCSD includes research presentations, a Nature Masterclass in scientific dissemination, and final project presentations. A selection of the students' project reports is published as a Simula SpringerBrief in Scientific Computing. In 2025, 25 students from 13 countries took part in SSCP. This was the 11th time SSCP was organized, and a total of 263 students have now completed the summer school.

Communicating Scientific Research (CSR) is an intensive course in research dissemination where PhD students learn to communicate their own research effectively to different audiences. The course is held over 2 weeks (one in autumn and one in spring) and focuses on how to create and deliver technical presentations, write scientific articles

and grant applications, and create informative posters and short films. 2025 was the 16th time CSR was held, and a total of 458 students have now completed the course.

RESEARCHER SUPPORT AND PROFESSIONAL DEVELOPMENT

Simula Academy offers a broad portfolio of courses. In 2025, several internal workshops in grant writing were developed in close collaboration with Simula's funding team. This included a series of short workshops called *Grant writing for researcher projects*, aimed at senior researchers, and the intensive two-day workshop *Decoding the fundamentals of grant writing*, which was organised as a two-day retreat for postdocs.

Five additional standalone courses were offered. These included the 1.5-day Academic writing workshop - *writing for international journals* and the half-day *Thesis writing workshop - assembling your PhD thesis "kappe"*. Three shorter workshops were also organized in collaboration with Simula's DocForum, an internal initiative at Simula providing professional and social support for early career researchers. These workshops were: *Enhancing your science visualisations*, *Mastering the art of the pitch*, and *Unlocking engagement - the power of storytelling*.

Communication has always been a priority area for Simula. Throughout 2025, we had a continued focus on oral and written dissemination through different channels and media to increase engagement with a broader audience outside academia. This was offered through the courses *Media training for experts* and *How to write a good opinion piece and get it published*, as well as individual coaching ahead of events to support the presenters in tailoring their presentations to the audience.

Additionally, a series of *Lunch and Learn* seminars was launched. The goal was to create a low-threshold platform for internal sharing of experiences and tips regarding tools and workflows that can support colleagues in their daily work. The seminars started as a pilot project for the administration and are planned to be expanded to include all of Simula in 2026.

RECRUITMENT AND NETWORKING

Simula Academy works actively to strengthen

relationships with student associations at Norwegian universities. These are important recruitment channels for attracting talented students. This is reflected in the interest in Simula's annual Master's Thesis Fair which in 2025 hosted 85 participants from UiO, OsloMet, and NMBU.

We also had visits from 29 master's students from Eindhoven University of Technology (Netherlands) and hosted a half-day course in coding for 37 students from Norges Realfagsgymnas at our facilities. On both occasions, the academic content was delivered by key personnel in the Department of Computational Physiology.

Simula also contributed to external events for students. At NTNU, we collaborated with the three student associations Nabla, Delta, and Hybrida to give a company presentation for 60 mathematics and physics students. At UiO, we took part in the Master's week, presenting Simula to 200 new master's students at the Department of Informatics.

To strengthen networking both internally at Simula and with external parties, Simula Academy re-established in 2025 the Simula Alumni Network. The Simula alumni event hosted in the spring of 2025 marked a significant milestone: the completion of 200 PhDs at Simula. Invited alumni gave talks sharing experiences from their career paths following their time at Simula.

In connection with International Women's Day, a breakfast seminar was hosted at Simula. The

purpose of the event was to shed light on the topics of diversity and inclusion through lectures and panel discussions reflecting on how Simula can best recruit, support, and retain more women.

EDUCATION BY THE NUMBERS

2025

16

Candidates supervised to the completion of their PhD degree

43

Students supervised to the completion of their Master's degree

219

PhD candidate completions since the beginning of Simula

686

Master's student completions since the beginning of Simula



SIMULA

INNOVATION AND SERVICES

Innovation activities are an inherent part of technology research, to ensure research creates value for society. Simula contributes to technology-based innovation through research and innovation projects in close collaboration with industry, through an internal culture of innovation, and through our investment company for early-stage technology companies, Simula Innovation.

CONTRACT RESEARCH

Contract research serves as an important link between Simula's researchers and industry, and solves specific challenges of our clients, both in the private and public sectors.

With the knowledge and experience of over 150 researchers across our five core research areas, we can assemble specialised teams capable of tackling even the most complex challenges.

In 2025, Simula, in collaboration with industry stakeholders, was awarded five new projects under the Research Council's Innovation Project in Industry (IPN) scheme.

These include:

- "Automated Continuous Certification and Testing of Industrial Robots" (ConCerT), led by ABB AS with SRL as research partner. The project will develop an automated process for continuous safety certification and testing of industrial robots.
- "Precise Rheumatoid Arthritis Drug Assessment" (PRADA), led by Age Labs AS and Life&Brain GmbH with SRL as research partner. The project will use machine learning and DNA methylation analysis to predict drug response and ensure personalized treatment for patients with arthritis.
- "User-controlled shareable biometrics" (SECSHARE), led by Mobai AS with Simula UiB as research partner. The



On the 1st of January 2025, Simula Consulting was fully integrated into Simula Research Laboratory as a dedicated department called Applied AI. This transition enhances collaboration between Simula's researchers and its IT consultancy services, ensuring the highest quality of service while aligning with Simula's overarching mission.

project will create a privacy-enhancing and user-controlled biometric identity control using advanced cryptography.

- "The Thinking Brewery - Context-aware AI for Smarter Production" (CAAVE), led by Plaato Technologies AS with SRL as research partner. The project will use artificial intelligence and IoT sensor data to optimize fermentation processes for the food and beverage industry.
- "Efficient Sports Content Production" (AI-Orchestrator), led by Forzasys with SimulaMet as research partner. The project will develop a multi-agent system that automates media production and sports highlight generation via simple text commands.

Total revenue from commissioned research amounted to 54 million NOK in 2025, which corresponds to 18% of total revenues in The Group.

SIMULA INNOVATION

Simula Innovation (SI) focuses on the management or investment in companies spun out of Simula Research Laboratory's research projects, as well as other promising companies linking their operations to new technology, especially where it is relevant to Simula's research areas.

At the end of 2025, SI was a co-owner of 30 pre-seeded and seed companies. These companies had combined revenues of nearly 450 million NOK and around 250 employees. Simula Innovation also holds ownership in Arribateck, which is listed on the Oslo Stock Exchange. SI also had a shareholding in H100 Group, listed on the Stockholm Stock Exchange. This occurred following the acquisition of companies in the portfolio.

The companies in the portfolio currently have technology products in the areas of communication and media, property, finance (insurance tech), biology, health, media, and marketing.

In 2025, SI experienced positive developments for several of Simula's spin-out companies in the form of access to capital and increased turnover. The situation as of the end of 2025 indicates increased growth for a number of the companies and access to further capital. In this context, two companies spun out of Simula can be mentioned.

- Celerway, spun out of Simula, has developed a mobile communication solution that covers high demand within transport, emergency services such as health and police, as well as other sectors with a great need for communication solutions. The company experienced a solid increase in turnover in 2025 and completed a major share issue. The company is expected to see strong international growth in the coming years.
- Forzasys develops technological solutions that are AI-based, managing and producing searchable sports content in a range of formats. In 2025, Forzasys developed several components for SEF (Swedish Elite Football), both in connection with the storage and production of content, and also improvements in how users can access the content through the FotbollPlay solution. This has resulted in a complete end-to-end media system where you can store, stream, view, search, share, and produce content based on the clubs' and league's content. Forzasys will focus on selling this solution to other federations and clubs in Europe in 2026.

SI has had 10 profitable exits since 2019. The company had financial income of approximately 10 MNOK in 2025. This includes, among other things, dividends from the company Testify and the sale of parts of the shares in Celerway.

In 2025, five projects were awarded qualification support for commercialisation from the Research Council. This is a result of the Research Council-funded project, "Early Phase Innovation Platform" (TIPS), which is aimed at helping researchers transfer their work to the commercial domain. Simula's researchers have an increased interest in innovation and commercialization.



SIMULA INNOVATION BY THE NUMBERS
2025 PORTFOLIO

250

People employed*

30

Companies

450

MNOK in total revenue

* These figures do not include Arribateck, which is listed on the stock exchange and has 70 employees.

GENDER EQUALITY, SOCIAL RESPONSIBILITY AND WORKING ENVIRONMENT 2025

GENDER BALANCE AT SIMULA

As of December 31, 2025, the Simula Group consisted of a total of four companies in Norway: Simula Research Laboratory (SRL), Simula Metropolitan Center for Digital Engineering (SimulaMet), Simula UiB, and Simula Innovation. The Group has a total of 180 employees, 167 of whom hold a main position at Simula. SRL has a total of 117 employees, 107 of whom have SRL as their main employer. The gender balance across the Simula Group, SRL, and SimulaMet is shown as the number of male and female employees holding a main position at Simula in Table 1, while Table 2 shows employees with 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 and part-time positions. For example, a large part of the workforce is in temporary recruitment positions (research fellows and post-doctoral research fellows), and the 'adjunct research scientist' position category comprises part-time employees whose main position is with another employer. Although the exact number of employees in these positions will vary somewhat from year to year and 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. Position categories with fewer than five women and five men are not reported and are marked with '-'.

Position categories at Simula	Simula Group		SRL		SimulaMet	
	Women	Men	Women	Men	Women	Men
Total	46	121	33	78	12	35
Scientific positions	12	58	10	38	-	14
Recruitment positions	16	53	11	30	-	15
Administrative positions	18	10	12	10	-	-
Group Management	5	7	-	-	-	-

Position categories in table 1:

- Research positions: includes Researcher I, II, III (not adjunct positions), as well as engineers
- Recruitment Positions: trainees, PhD students, post-doctoral research fellows
- Administrative positions: HR, finance, communications, operations, IT operations, management
- Management Group: includes the CEO, company directors, as well as other managers who are part of the Management Group. Members of the Management Group have their main position within either administration or research and have thus also been counted in those job categories.



Table 2: Gender distribution across different groups.

	Temporary staff		Actual part-time		Involuntary part-time		Parental leave	
	Women	Men	Women	Men	Women	Men	Women	Men
Simula Group	17	65	-	18	-	-	-	-
SRL	11	36	-	9	-	-	-	-
SimulaMet	-	21	-	8	-	-	-	-

The groupings in Table 2 are defined as follows:

- Temporary employees: mainly recruitment positions (PhD students and post-doctoral research fellows), adjunct positions, interns, and assistants. Reported by number of individuals.
- Actual part-time: employees, both scientific and administrative. Most in this category hold other positions alongside their work at Simula (primarily adjunct positions). Reported by number of individuals.
- Involuntary part-time: We have no permanent employees in part-time positions who have expressed a desire to work more.
- Parental leave: Stated as number of weeks. The total number of weeks per gender is then divided by the number of women and men who have taken parental leave to show the average uptake per gender.

OUR WORK FOR EQUALITY AND AGAINST DISCRIMINATION

Simula relies on competent and motivated employees with specialised expertise 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 37 different nationalities, and 51% of employees come from countries other than Norway (see Figure 1). In total, 26% of Simula’s employees are women (17% of Simula’s scientific employees, see Figure 2).

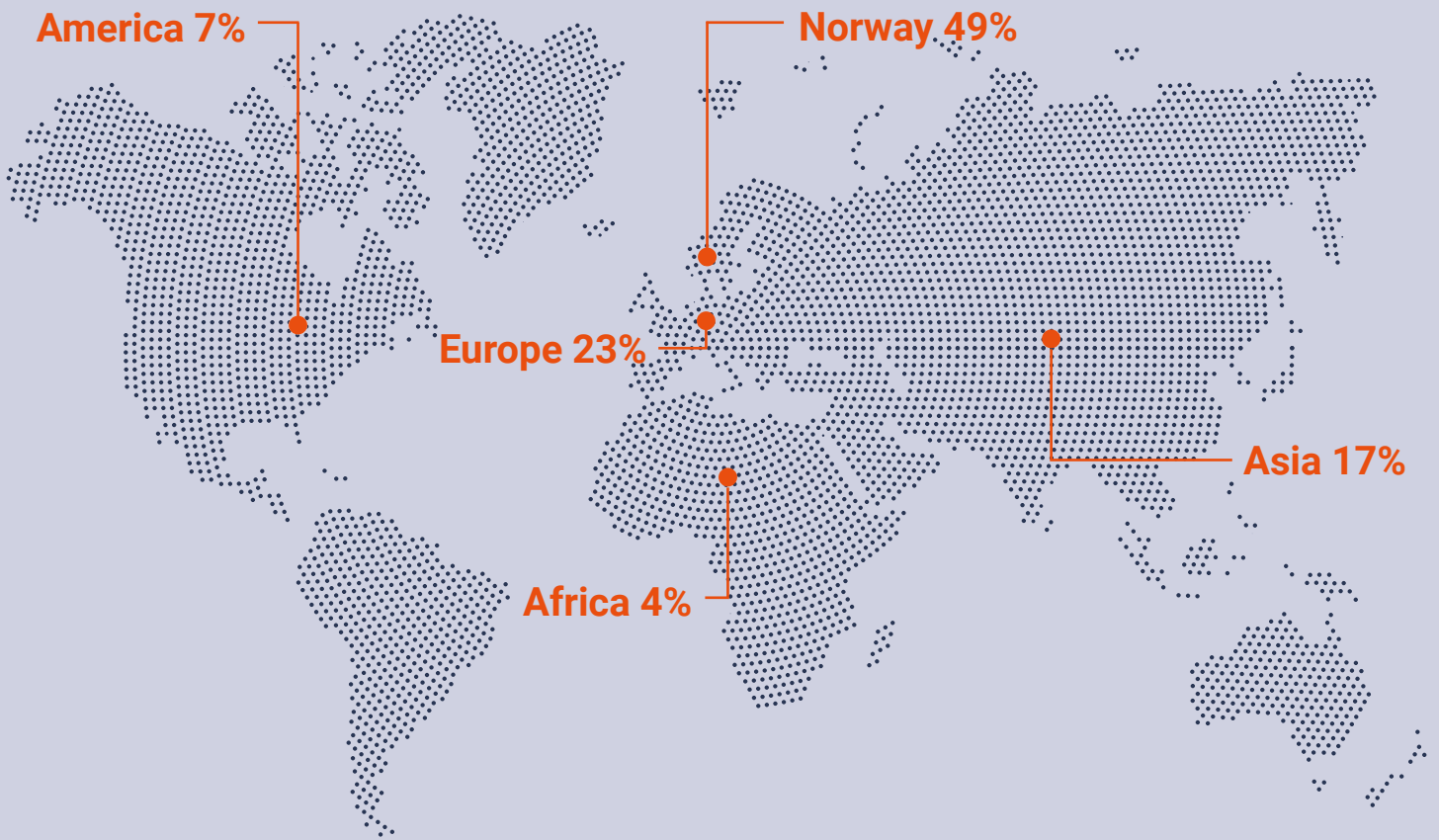
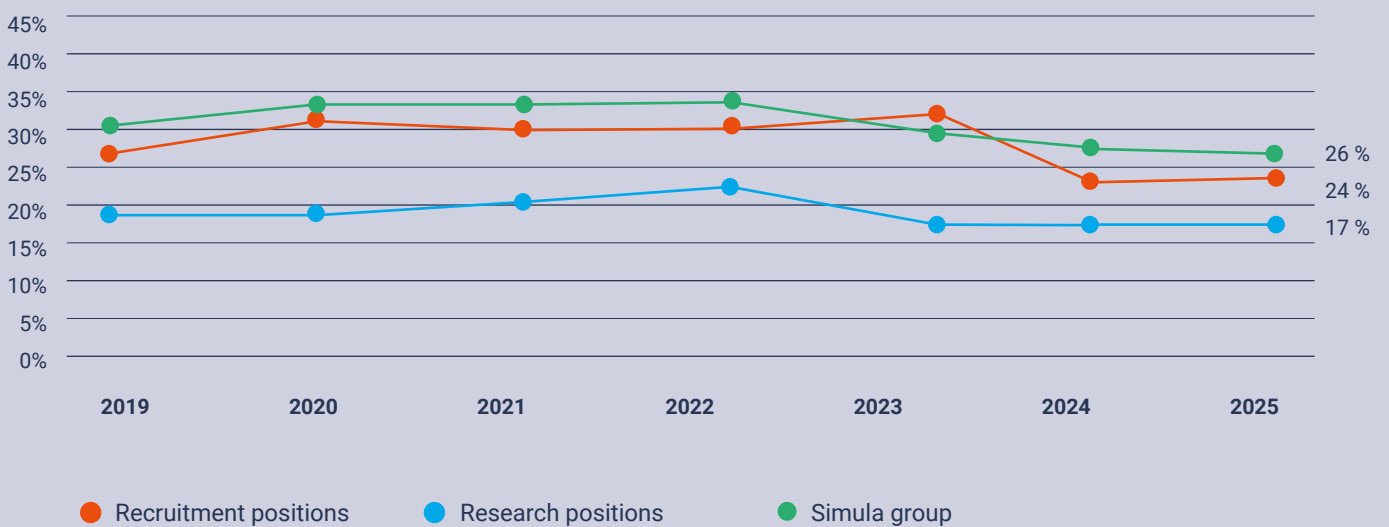


Figure 1: Simula is a diverse workplace. The figure shows the proportion of employees from different continents.

Figure 2: Female representation at Simula.



GENERAL PRINCIPLES FOR GENDER EQUALITY AND ANTI-DISCRIMINATION

Equality work is anchored in Simula's management and in various strategies and guidelines:

- Simula has worked purposefully to recruit and further develop female research talents for over ten years. The first goal of achieving a 25% proportion of women among researcher positions was reached in 2013. Simula aims to reach a total of 40% women among all employees by 2028
- Extensive work is being done on HSE (Health, Safety, and Environment) at Simula. Safety representatives, the working environment committee, the PhD Forum, HR, and the welfare committee are involved in this work, and regular employee interviews and working environment surveys are carried out.
- The boards of the Simula companies receive regular reports on employee welfare, both routinely (e.g., HSE reports to each board meeting), and regarding important matters that affect employees.
- Simula's culture is thoroughly described on the website. This description particularly conveys Simula's core values and expectations for a diverse workplace.
- Simula has clear guidelines for preventing all forms of harassment, with an associated whistle-blowing system.

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 Board of Directors. 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 next.

WORKING ENVIRONMENT

Quality assurance and development of the workplace is a continuous effort carried out through an internal inspection system that encompasses health, safety, and the working environment. The Working Environment Committee at Simula works to develop and maintain the quality of the working environment and follow up on issues regarding the safety, health, and welfare of employees. Simula conducts regular working environment surveys across all companies. The results show that Simula has a good working environment compared to previous surveys at Simula and compared to the research institute sector in general. The results from the quarterly surveys are used as a basis for discussions about the working environment at various levels.

FACILITATION AND OPPORTUNITY TO COMBINE WORK AND FAMILY LIFE

Simula facilitates a good balance between work and leisure, including family life. With flexible working hours and home office arrangements, 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 employees, regardless of the individual's background and life situation.

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. 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 facilitates competence development. From a research perspective, this involves access to the academic and administrative resources necessary to establish oneself as a researcher. All employees are encouraged to sign up for courses or participate in other training programmes that can contribute to development, both as a professional and a leader. Simula arranges seminars for supervisors focusing on relevant and challenging topics, and offers courses for PhDs and post-doctoral research fellows to develop their understanding and skills

for when they, themselves, will supervise. Simula Academy, which works with researcher education and competence development at Simula, conducts a wide range of courses and activities for Simula's employees that are directly relevant to a future career in research and contribute to an inclusive working environment. In 2025, these activities included the annual two-day seminar for PhD students and post-doctoral research fellows, with topics such as academic supervision and time management, as well as the Good Supervision of Master's Theses seminar for new supervisors. Simula Academy also strengthened its support in application writing through courses such as Grant Writing for Researcher Projects and Decoding the Fundamentals of Grant Writing. Communication was a continuous priority area, with media training, op-ed writing, and individual coaching, in addition to the annual intensive PhD course in scientific dissemination (Communicating Scientific Research).

SALARY STRUCTURE

Every two years, Simula conducts a thorough review of salary conditions within the organisation, most recently in 2024. The goal is twofold: To assess whether the salary level at Simula is competitive (external perspective) and whether the salary level reflects the individual's level of responsibility and position category (internal perspective). In this process, positions of equal level (e.g., PhD students), work of equal value (e.g., HR advisor and communications officer), and individual assessments related to education, experience, and contribution, among others, are considered. Deviations that are identified are handled and rectified.

In the overview below, we have used position

categories that make it practically possible to classify work of equal value. We have used the average number of years of experience after a Master's degree as a parameter to provide an accurate picture of the figures. We particularly note that the categories "scientific positions – senior" and "Administrative positions" give the impression of a gender imbalance. Here, too, each individual employee has been assessed based on the criteria outlined above (experience, contribution, and level of responsibility), and we have assessed the imbalance to be a result of women at Simula being generally younger and having fewer years of experience since their Master's degree than men performing the same type of work. In the "recruitment positions" category, where this is not the case, there are no salary differences between women and men.

PROMOTION

Each year, Simula carries out a process where employees are assessed for promotion in accordance with established position criteria. Those who meet the requirements move up to a higher scientific position.

ABSENCE DUE TO ILLNESS

Absence due to illness is generally low at Simula. In 2025, the sick leave rate was 3.96% across the Simula Group (3.52% at SRL and 3.75% at SimulaMet). Simula has mechanisms to prevent and reduce sick leave, strengthen job attendance, and prevent fall outs from the workforce.

CONFLICT MANAGEMENT AND WORK AGAINST HARASSMENT

Simula aims to ensure a safe and secure working environment in line with the company's principles for a good work culture. Simula takes into account

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

Positions category	Average years experience after master's degree		Salary difference Men:Women
	Women	Men	
Scientific positions			
- Senior	15 years	21 years	15%
- Mid-level	8 år	8 years	- 3%
Recruitment positions	5 years	4 years	0%
Administrative positions	11 years	29 years	38%
Management Group	23 år	26 år	8 %

- Administration includes management, IT, operations, finance, HR, and communications.
- The table shows employees at Simula as of 31.12.2025, and employees without a Master's degree or with salary anchored in another currency are excluded from the comparison.

Table 4: Selected examples from work with risk identification and measure development.

	POTENTIAL RISK	POSSIBLE CAUSES	IMPLEMENTED MEASURES	EFFECT OF MEASURES
1.	Possible risk of lacking a comprehensive picture of the need for skills development courses and support at Simula.	Shifting needs and a lack of comprehensive overview available at Simula.	Skills development measures are discussed in the management group, and strategic needs are mapped out..	Simula maintains academic quality and relevance, has a stable proportion of women, and good results in working environment surveys
2.	Possible risk that employees returning from leave find it difficult to return to their work.	After extended leave, such as parental leave, employees will need an update on what has happened both academically and organisationally since the leave began.	A fixed routine for a conversation between the immediate manager and employees returning from leave. This is intended to facilitate a smoother transition ("re-boarding").	HR evaluated this measure in 2025 and considers the effect to be good and the measure important for inclusion and equality.
3.	Are there unresolved effects of the home office policy on the working environment and productivity? Possible risk that less contact between colleagues may be problematic for certain groups of employees.	Increased flexibility as a result of the home office policy may lead to less professional contact.	Simula operates a 3:2 model for the home office, where three days a week are in the office and two days are flexible.	We continuously assess the effects of this model, for example, in surveys and in connection with employee interviews.

the individual needs of each employee and neither accepts nor tolerates any form of harassment, exclusion, or discrimination based on religion, gender, sexual orientation, age, nationality, disability, or political views. Simula has prepared guidelines for conflict management and whistle-blowing. The guidelines encourage employees to actively contribute to a working environment where conflicts are handled in an open, honest, and constructive manner, and to try to prevent destructive conflicts from arising in the first place.

ETHICS

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

HOW SIMULA WORKS FOR EQUALITY AND ANTI-DISCRIMINATION

Simula’s work for equality and against discrimination is a continuous interaction between many actors in the Group, including management, the board, administration, employees, and employee representatives. Simula’s administration bases much of its work on the cycle of a 4-step working method, which involves:

1. Investigating the risk of discrimination and obstacles to equality
2. Analysing causes
3. Implementing measures
4. Evaluating the results of the work

Over the past few years, Simula has carried out a targeted process to identify discrimination risks for gender equality and develop measures for these. Several of the recruitment measures established following this review, such as always calling in at least one candidate of each gender for an interview, are established practice.

In 2025, Simula continued its work for equality and

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

against discrimination, and selected examples of this work can be found in Table 4.

According to the requirements of the activity and reporting obligation (Aktivitets- og redegjørelsesplikten, also referred to as ARP), work for equality and against discrimination shall be carried out in active cooperation with employee representatives according to the statutory working method. Structures that reflect this shall be continued in 2026.

ADDITIONAL MEASURES IN THE WORK FOR EQUALITY AND ANTI-DISCRIMINATION

The main features of Simula's working environment surveys are that employees are satisfied with their workplace, they are motivated, proud to work at Simula, and experience great self-determination and professional development. In 2026, Simula will conduct a larger working environment survey and look more closely at perceived differential treatment, both regarding gender and position.

We present the results of ongoing working environment surveys at several levels of the organisation. Department managers hold working meetings for their respective departments and prepare lists of measures at the department level. The results are used as a basis for discussion and further work. This is a positive approach that leads to constructive discussions.

Some of the measures for 2026 will be further developments of measures initiated earlier. Several of these were organised under Simula's HiddenFigures project, a project from the Research Council of Norway's BalanseHub programme that was active from January 2021 to January 2023. HiddenFigures aimed to achieve long-term gender balance and diversity by creating a leadership culture across Simula that is inclusive regarding researchers' diverse backgrounds and life situations. The measures, which included tailored leadership development and mentoring, have contributed to increased awareness and more open dialogue across the organisation regarding an inclusive and supportive working environment. Although it is too early to assess the long-term effect of these measures, the benefits are sufficiently recognisable and will be continued in 2026.

In 2025, Simula continued the HiddenGems project. The project has tested new mechanisms aimed at diversity and inclusion that contribute to broader social benefit, based on the diverse perspectives among Simula's employees. Although HiddenGems concludes in 2026, Simula will continue its work on diversity and inclusion, including through a new project, IgnitingPotential – Preparing The Next Generation Of Research Leaders. This project will implement initiatives that prepare a more diverse group of future leaders, including a new Principal Investigator Readiness Incubator at Simula and the Basic Programme in Leadership development programme for middle managers. Both HiddenGems and IgnitingPotential are projects funded as part of BalanseHub.

At Simula, emphasis is placed on common routines throughout the entire recruitment processes to ensure good routines, a basis for comparison, and an overview across units and departments, as well as ensuring candidates equal treatment and that they receive the same information even before employment.

DOCTORATES AND MASTER'S DEGREES 2025

DOCTORATES

Student	Title of Thesis	Supervisors	University*
Adrian Miguel Llop Recha	Techniques for Enhancing Measurement Selectivity in Microwave Biosensing	Kristian Gjertsen Kjelogård, Dag Trygve Eckhoff Wisland, Gert Cauwenberghs, Tor Sverre Lande, Kimberly McCabe	UiO
Akriti Sharma	Application of Artificial Intelligence in Assisted Reproductive Technology	Hugo Lewi Hammer, Michael Riegler, Erwan Delbarre, Mette Stensen	OsloMet
Chung-Wei Weng	Ensuring Privacy in Information Retrieval and Decentralized Learning	Eirik Rosnes, Hsuan-Yin Lin, Øyvind Ytrehus	UiB
Henrik Aasen Kjeldsberg	The Clot Thickens: Investigating Thrombus Formation Through Left Atrial Flow Simulations	Kristian Valen-Sendstad, Mikael Mortensen, Joakim Sundnes	UiO
Irati Manterola Ayala	Cryptanalysis of STAP Primitives: Efficiency Meets Vulnerability	Håvard Raddum, Øyvind Ytrehus	UiB
Jørgen Nilsen Riseth	Multi-Compartment Models for Macroscopic Transport of Solutes in Brain Tissue	Kent-André Mardal, Thomas Surowiec, Marie Rognes	UiO
Julie Johanne Uv	Computational Study of the Fetal ECG	Hermenegild Arevalo, Johannes Langguth, Aslak Tveito	UiO
Konstantin Holzhausen	Learning Robust Representations in Neural Network Models	Mikkel Elle Lepperød, Anders Malthe-Sørenssen	UiO
Leif Knutsen	Software Development Success Despite Uncertainty and Complexity	Magne Jørgensen, Casper Lassenius, Jo Hannay	OsloMet
Lena Myklebust	Modeling the Electrophysiology and Mechanics of Ventricular Arrhythmia	Hermenegild Arevalo, Aslak Tveito	UiO
Lisa Pankewitz	Personalizing Congenital Heart Disease Modeling: From Coordinates to Fiber Architecture	Hermenegild Arevalo, Andrew McCulloch, Aslak Tveito, James C. Perry, Kimberly McCabe	UiO
Martin Hornkjøl	Modelling Fluid Flow and Solute Transport in the Intracranial Compartment and Developing Methods for Multi-Physics Problems	Kent-André Mardal, Marie Rognes, Vegard Vinje, Per-Kristian Eide, Karsten Trulsen	UiO
Matthias Boeker	Advancing Predictive Modeling of Physiological Signals: Addressing Variability, Uncertainty, and Reliability in Wearable Sensor Data	Pål Halvorsen, Michael A. Riegler, Hugo Lewi Hammer	OsloMet
Pegah Salehi	Visual Realism in AI-Driven Virtual Training Environments for Child Investigative Interviews	Dag Johansen, Pål Halvorsen, Michael A. Riegler, Saeed Shafiee Sabet, Vajira Thambawita	UiB
Ragnhild Klingenberg Røed	Developing an AI-driven Child Avatar Chatbot to Improve Interviewing Skills for Professionals Investigating Suspected Child Abuse and Neglect	Gunn Astrid Baugerud, Miriam Sinkerud Johnson, Pål Halvorsen	OsloMet
Sinan Sigurd Tanilkan	Exploring the Use of Benefits Management in Practice	Jo Hannay, Magne Jørgensen	OsloMet

* UiB = Universitetet i Bergen, UiO = Universitetet i Oslo, OsloMet = OsloMet - storbyuniversitetet, NMBU = Norges miljø- og biovitenskapelige universitet, NTNU = Norges teknisk-naturvitenskapelige universitet, UiT = Norges arktiske universitet, HIOF = Høgskolen i Østfold, USN = Universitetet i Sørøst-Norge

MASTER'S DEGREES

Student	Title of Thesis	Supervisors	University*
Ada Hatland	Predicting Future States and Events for Deep Reinforcement Learning Policies - Discovering Intent-Based Explanations for Cooperative Multi-Agent Reinforcement Learning Agents	Helge Spieker, Dennis Groß, Kyrre Glette	UiO
Adrian Duric	Explanation Supported Learning: Explainable Artificial Intelligence for Improved Machine Learning Performance	Hugo Hammer, Michael Riegler, Jim Tørresen	UiO
Alexander Edward Hatle	Numerical Analysis for Cardiac Electro-Mechanics	Henrik Nicolay Finsberg, Joakim Sundnes, Jørgen Dokken, Espen Robstad Jakobsen	NTNU
Ashay Singh	Evaluation of the Level of Privacy in Generated Synthetic Data	Hugo Hammer, Hasan Ogul	HIOF
Benjamin Borge	RDMA Integration for BeeGFS over PCIe NTB Interconnects	Håkon Kvale Stensland, Tore Heide Larsen, Jonas Markussen	UiO
Ebba Maja Olsson	Building and Evaluating a Web-Based Tool for Software Benefits Estimation and Management: Focusing on a Tool Customized for The Norwegian Scheme for Quality Assurance of Major Public Investments (the QA scheme)	Jo Hannay, Viktoria Stray	UiO
Edvin David Jarve	Using Physics-Informed Neural Networks for Cardiac Electrophysiology	Joakim Sundnes, Henrik Finsberg, Miroslav Kuchta, Morten Hjorth-Jensen	UiO
Felix Aarekol Forseth	Innovative Heart Modeling with PINNs - A Comparative Study of Physics-Informed Neural Networks and Finite Element Methods in Elasticity Problems with Applications to Heart Modeling	Henrik Finsberg, Miroslav Kuchta, Joakim Sundnes	UiO
Finn Bartels	Investigating Injury Risk Factors for Professional Football Athletes through Machine Learning	Pål Halvorsen, Toralf Kirsten	Leipzig University
Firdowsa Cige	A Comparative Analysis of CNNs and Transformers for Polyp Segmentation: Efficiency, Performance, and Complexity Evaluation	Pål Halvorsen, Steven Hicks	OsloMet
Frieda Liv Victoria Wolff Wik	Combining Traditional Image Analysis and Deep Learning for Enhanced Atg8 Spot Analysis in Autophagy Research	Vajira Thambawita, Michael Riegler, Helene Knævelsrud, Pål Halvorsen, Jorrit Martijn Enserink	UiO
Jonas Lien Sampaio da Silva	Towards Automated Language Server Synthesis	Volker Stolz, Erblin Isaku, Shaukat Ali	UiO
Jonatan Hoffmann Hanssen	Out of Distribution Detection Using Explainable AI	Hugo Hammer, Kyrre Glette	UiO
Jony Karmakar	Automated Foul Detection and Card Prediction in Soccer	Steven Hicks, Vajira Thambawita, Martin Thomas Horsch	NMBU
Jørgen Jensevold	SYCL vs CUDA Performance in PopSift and Feature Matching	Håkon Kvale Stensland, Carsten Griwodz	UiO
Kristian Sørdal	Performance of Distributed and Shared Memory Parallel Sparse-Matrix Vector Multiplication	Johannes Langguth	UiB
Kristian Tjelto Johansen	DoubleClique: A Replicated In-Memory Key-Value Storage System Over PCIe Interconnect	Håkon Kvale Stensland, Masoud Hemmatpour, Tore Heide Larsen	UiO

MASTER'S DEGREES

Student	Title of Thesis	Supervisors	University*
Lars Bysheim	C++ vs. Rust for Shared-Memory Community Detection with the Leiden Algorithm	Johannes Langguth	UiB
Lars Storholt	Cross-Species Transfer Learning for Human Sperm Detection Using Pig and Bull Sperm Data	Vajira Thambawita, Pål Halvorsen	OsloMet
Laxmi Dhital	Fully Homomorphic Encryption and Cloud Auditing: Enhancing Security and Privacy in Cloud Computing	Martha Norberg Hovd, Håvard Raddum	UiB
Linas Vidziunas	Automating Cyber Threat Intelligence: Leveraging Large Language Models and Retrieval-Augmented Generation for ATT&CK Technique and Tactic Classification	CMohsen Toorani, Anders øst, Leon Moonen	USN
Lise Chen	Natural Language Processing to Create a Knowledge Graph About Sleep Apnea	Håkon Kvale Stensland, Pål Halvorsen, Marta Quemanda Lopez, Kristoffer Robin Stokke	UiO
Liv Ingunn Dornfest	Speech Command Recognition on Encrypted Data	Martha Norberg Hovd, Håvard Raddum	UiB
Mads Saua Balto	Performance Modeling and Reordering Selection for Sparse Matrix-Vector Multiplication Using Machine Learning	Xing Cai, James D Trotter, Morten Hjorth-Jensen	UiO
Maella Irebe Muganga	Certified Yet Compromised: Evaluating the Limits of Common Criteria Certification	Øyvind Ytrehus	UiB
Md Rizve Hasan	Validating Accessibility in Crowdsourced Multimedia Survey Frameworks	Pål Halvorsen, Cise Midoglu, Saeed Sabet	UiO
Mohammad Azizul Islam Yasin	Shot Boundary Detection in Soccer	Pål Halvorsen, Cise Midoglu, Steven Hicks, Mehdi Houshmand Sarkhoosh	OsloMet
Mohammad Mainul Hasan	Evaluating Storage Solutions for Multimedia-Intensive Survey Frameworks	Pål Halvorsen, Cise Midoglu, Saeed Shafiee Sabet	UiO
Navneet Sharma	Large Language Models in Semantic Parsing for Log Analysis and Anomaly Detection	Leon Moonen, Merve Astekin, Eirik Valseth	NMBU
Ole Kristian Rustebakke	Extracting Player Speed from Football Videos	Pål Halvorsen, Morten Hjorth-Jensen, Michael Riegler	UiO
Oliver Ruste Jahren	Decreasing Driveability in Autonomous Driving System Simulator Scenarios. LLM4DD: A Tool for Uncovering Faults in Autonomous Driving Systems Using Large Language Models	Karoline Nylænder, Shaukat Ali	UiO
Oskar Krystian Michalski	Hardware in the Hands of the Unaware: Remote BLE Keystroke Injection on USB-Armory Mk II and the Pedagogical Gap in Cybersecurity	Øyvind Ytrehus, Bjørn Møller Greve	UiB
Razieh Kaveh	Classification Confidence Visualization of Artificial Neural Networks with Adversarial Robustness	Sidney Pontes-Filho, Mikkel Lepperød, Habib Ullah	NMBU
Sayna Ganjei	Facilitating Benefits Management for the Co-funding Program at the Norwegian Digitalization Agency - with a Jira Extension	Jo Hannay, Viktoria Stray	UiO
Severin Ullavik Erstad	Post-Quantum Cryptography in the Messaging Layer Security Protocols	Håvard Raddum, Øyvind Ytrehus	UiB
Shamimeh Mo-hajeri Nav	Exploring the Reliability of EEG and Eye-Tracking for Biometric Authentication: Strengths, Limitations, and Multimodal Benefits	Shailendra Bhandari, Anis Yazidi, Alexander Szorkovszky	OsloMet

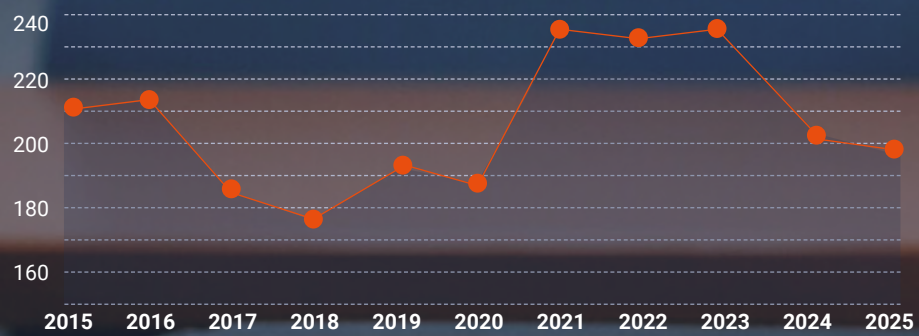
MASTER'S DEGREES

Student	Title of Thesis	Supervisors	University*
Sujan Devkota	Enhancing Sperm Detection in Microscopic Videos Using Image Super-Resolution: An Experimental Study on Detection Accuracy and Generalization	Vajira Thambawita, Eirik Valseth	NMBU
Sumaia Jahan Brinti	Exploring Unsupervised Contrastive Learning Methods for ECG Analysis	Tatiana Kravets, Rune Dalmo, Vajira Thambawita, Pål Halvorsen	UiT
Varun Sharman	Automatic Thumbnail Generation for Soccer Content Using Instance Segmentation	Pål Halvorsen	HIOF
Vetle Elvebakken Andersen	Effects of Quantum Noise on the Quantum Approximate Optimization Algorithm	Shaukat Ali, Eñaut Mendiluze, Tor Skeie	UiO
Victoria Ovedie Chruickshank Langø	Towards Dialectal Text-to-Speech: Investigating the Feasibility of Synthesizing Norwegian Dialects	Syed Zohaib Hassan, Steven Hicks, Pål Halvorsen	UiO
Yingqian Zhou	The Questions You Ask: Evaluating Machine Learning Models for Question Classification in Child Forensic Interviews	Pål Halvorsen, Steven Hicks, Syed Zohaib Hassan	UiO
Zohaib Ali	Software Development on Crowdsourced Online Survey Framework to Support New Features for Enhanced User Interaction	Henrik Finsberg, Miroslav Kuchta, Joakim Sundnes	HIOF

PUBLICATIONS

2025

PUBLICATIONS THE PAST 10 YEARS (peer reviewed)



ARTICLES IN INTERNATIONAL JOURNALS

- M. de Bruijn, B. Mutsvauro, L. Bruls, M. G. Cissé, J. Langguth, K. S. Orgeret, et al. "Aren't we all journalists?" **Citizen journalism, disinformation and the weaponization of social media in conflict torn Mali.** *Journalism*. 2025.
- J. M. Murillo, J. Garcia-Alonso, E. Moguel, J. Barzen, F. Leymann, S. Ali, et al. **Quantum Software Engineering: Roadmap and Challenges Ahead.** *ACM Transactions on Software Engineering and Methodology*. 2025.
- N. Papachrysos, P. H. Smedsrud, K. V. Ånonsen, T. J. D. Berstad, H. Espeland, A. Petlund, et al. **A comparative study benchmarking colon polyp with computer-aided detection (CADE) software.** *DEN Open*. 2025.
- J. Ali, A. Almairan, E. M. Almohimmah, A. M. Ragheb, M. A. Esmail, H. Bryhni, et al. **A Method for Event Localization in Sagnac Loop Sensing System Using Sparse Signal Recovery.** *Journal of Lightwave Technology*. 2025.
- G. Menguy, S. Bardin, A. Gottlieb, N. Lazaar. **A Query-Based Constraint Acquisition Approach for Enhanced Precision in Program Precondition Inference.** *Journal of Artificial Intelligence Research (JAIR)*. 2025.
- Mardal K, Sogn J, Takacs S. **A robust and time-parallel preconditioner for parabolic reconstruction problems using Isogeometric analysis.** *Mathematical Models and Methods in Applied Sciences*. 2025.
- D. Kim, B. S. Lazarov, B. Keith, T. M. Surowiec. **A Simple Introduction to the SiMPL Method for Density-Based Topology Optimization.** *Structural and Multidisciplinary Optimization*. 2025.
- J. Skaar, N. Haug, H. E. Plesser. **A simplified model of NMDA-receptor-mediated dynamics in leaky integrate-and-fire neurons.** *Journal of Computational Neuroscience*. 2025.
- R. Aróstica, D. Nolte, A. Brown, A. Gebauer, E. Karabelas, J. Jilberto, et al. **A software benchmark for cardiac elastodynamics.** *Computer Methods in Applied Mechanics and Engineering*. 2025.
- A. J. Ellingsrud, P. Benedusi, M. Kuchta. **A splitting, discontinuous Galerkin solver for the cell-by-cell electroneutral Nernst-Planck framework.** *SIAM Journal on Scientific Computing*. 2025.
- R. Tarannum, B. Ngereja, B. Hussein. **A structured taxonomy for effective digital transformation project implementation: Development, validation, and practical insights.** *International Journal of Information Systems and Project Management (IJISPM)*. 2025.
- M. Jørgensen. **A survey of selected characteristics and contexts of the analysis and planning phase of software development projects and their connections to project success.** *Information and Software Technology*. 2025.
- H. Herlyng, A. J. Ellingsrud, M. Kuchta, I. Jeong, M. E. Rognes, N. Jurisch-Yaksi. **Advection versus diffusion in brain ventricular transport.** *Fluids and Barriers of the Central Nervous System*. 2025.
- B. Ngereja, M. Jørgensen. **An overview of the use of alternative funding and contracting approaches relevant for agile software development: A systematic review of real-life experiences.** *Journal of Systems and Software*. 2025.
- B. Keith, D. Kim, B. S. Lazarov, T. M. Surowiec. **Analysis of the SiMPL method for density-based topology optimization.** *SIAM Journal on Optimization*. 2025.
- F. Vallecillos-Ruiz, A. Grishina, M. Hort, L. Moonen. **Assessing the Latent Automated Program Repair Capabilities of Large Language Models using Round-Trip Translation.** *ACM Transactions on Software Engineering and Methodology (TOSEM)*. 2025.
- O. Å. Mostad, E. Rosnes, H. Lin. **Asymptotically good generalized quantum Tanner codes.** *IEEE Journal on Selected Areas in Information Theory*. 2025.
- H. Borgli, H. K. Stensland, P. Halvorsen. **Automatic Prompt Generation Using Class Activation Maps for Foundational Models: A Polyp Segmentation Case Study.** *Machine Learning & Knowledge Extraction*. 2025.
- M. H. Sarkhoosh, S. Gautam, C. Midoglu, T. Nguyen, J. Held, A. Cioppa, et al. **Beyond Audio: Enhancing SoccerNet-Echoes with Multimodal Event Extraction Using LLMs.** *International Journal of Semantic Computing*. 2025.
- X. Wang, S. Ali, P. Arcaini. **BQTmizer: A Tool for Test Case Minimization with Quantum Annealing.** *IEEE Software*. 2025.
- S. Breiter, J. D. Trotter, K. Furlinger. **Cache partitioning for sparse matrix-vector multiplication on the A64FX.** *Parallel Computing*. 2025.
- J. Llopis-Lorente, I. van Herck, M. Mora, H. Finsberg, C. Daversin-Catty, J. S. Dokken, et al. **Cardiac 3D electromechanical tissue simulations for cardiac safety analysis.** *Journal of Pharmacological and Toxicological Methods*. 2025.
- P. Salehi, S. A. Sheshkal, V. Thambawita, S. Gautam, S. S. Sabet, D. Johansen, et al. **Comparative Analysis of Audio Feature Extraction for Real-Time Talking Portrait Synthesis.** *Big Data and Cognitive Computing*. 2025.
- M. Riegler, et al. **Consensus statements on the current landscape of artificial intelligence applications in endoscopy, addressing roadblocks, and advancing artificial intelligence in gastroenterology.** *Gastrointestinal Endoscopy*. 2025.
- G. Monopoli, D. Haas, A. Singh, E. W. Aabel, M. Ribe, A. I. Castrini, et al. **DeepValve: The first automatic detection pipeline for the mitral valve in Cardiac Magnetic Resonance imaging.** *Computers in Biology and Medicine*. 2025.
- P. Valle, A. Arrieta, L. Han, S. Ali, T. Yue. **Defining and generating multi-level and uncertainty-wise test oracles for cyber-physical systems.** *Software and Systems Modeling*. 2025.
- S. Rasnayaka, D. L. Bandara, A. Jayasundara, R. Jayasinghe, C. Wimalasiri, P. Rathnayake, et al. **DenPAR: Annotated Intra-Oral Periapical Radiographs Dataset for Machine Learning.** *Scientific Data*. 2025.
- A. Chatterjee, M. Riegler, P. Halvorsen. **Designing an ethical and explainable automatic coaching (eCoach) system for community based, persuasive recommendations.** *Multimedia Tools and Applications*. 2025.
- K. H. Jæger, V. Charwat, K. Healy, S. Wall, A. Tveito. **Determining properties of human-induced pluripotent stem cell-derived cardiomyocytes using spatially resolved electromechanical metrics.** *The Journal of Physiology*. 2025.
- Y. Yakimenka, C. Weng, H. Lin, E. Rosnes, J. Kliewer. **Differentially-private collaborative online personalized mean estimation.** *IEEE Transactions on Information Forensics and Security*. 2025.
- K. H. Jæger, A. Tveito. **Electrodiffusion dynamics in the cardiomyocyte dyad at nano-scale resolution using the Poisson-Nernst-Planck (PNP) equations.** *PLoS Computational Biology*. 2025.
- M. Bano, S. Ali, D. Zowghi. **Envisioning responsible quantum software engineering and quantum artificial intelligence.** *Automated Software Engineering*. 2025.
- M. Linløkken, F. Meyer, C. Högström, P. Jølstad, H. Spieker, S. Guillaume, et al. **Equivalent Fall Height and Aerial Maneuver Difficulty Both Influence Landing Stability on World Cup Slopestyle Rollover Jumps For Skiers and Snowboarders.** *Scandinavian Journal of Medicine & Science in Sports*. 2025.
- D. Marijan, H. H. Mohammed, B. Zaman. **Estimation and optimization of ship fuel consumption in maritime: review, challenges, and future directions.** *Journal of Marine Science and Technology*. 2025.

- Å. Telle, V. Charwat, B. Charrez, H. Finsberg, K. Healy, S. Wall. **Estimation of Active Tension in Cardiac Microtissues by Solving a PDE-Constrained Optimization Problem**. *International Journal for Numerical Methods in Biomedical Engineering*. 2025.
- H. Kjeldsberg, R. Schnabel, J. Sundnes, K. Valen-Sendstad. **Estimation of inlet flow rate in simulations of left atrial flows: A proposed optimized and reference-based algorithm with application to sinus rhythm and atrial fibrillation**. *Journal of Biomechanics*. 2025.
- J. Isaksen, M. Nørregaard, M. Manninger, D. Dobrev, T. Jespersen, B. Hermans, et al. **Evaluating artificial intelligence-enabled medical tests in cardiology: Best practice**. *IJC Heart & Vasculature*. 2025.
- A. Storås, S. Mæland, J. Isaksen, S. Hicks, V. Thambawita, C. Graff, et al. **Evaluating gradient-based explanation methods for neural network ECG analysis using heatmaps**. *Journal of the American Medical Informatics Association (JAMIA)*. 2025.
- O. Presacan, A. Dorobantiu, J. Isaksen, T. Willi, C. Graff, M. Riegler, et al. **Evaluating the Feasibility of 12-Lead ECG Reconstruction from Limited Leads Using Deep Learning**. *Nature Communications Medicine*. 2025.
- S. P. Brubacher, M. Powell, M. S. Johnson, M. L. Cano, S. Z. Hassan, M. Riegler, et al. **Experts' Views on Artificial Intelligence-Based Child Chatbots to Train Investigative Interviewing Skills**. *Applied Cognitive Psychology*. 2025.
- K. Holzhausen, M. Merlin, H. Torvik, A. Malthe-Sørenssen, M. Lepperød. **Exploring Biologically Inspired Mechanisms of Adversarial Robustness**. *Neural Computing and Applications*. 2025.
- A. Storås, M. Dreyer, F. Pahde, S. Lapuschkin, W. Samek, P. Halvorsen, et al. **Exploring the clinical value of concept-based AI explanations in gastrointestinal disease detection**. *Scientific Reports*. 2025.
- N. Oldfield, C. Laaber, T. Yue, S. Ali. **Faster and Better Quantum Software Testing through Specification Reduction and Projective Measurements**. *Transactions on Software Engineering and Methodology (TOSEM)*. 2025.
- H. Finsberg. **fenicsx-beat-An Open Source Simulation Framework for Cardiac Electrophysiology**. *Journal of Open Source Software*. 2025.
- H. L. Hammer, V. Thambawita, M. Riegler. **Foundation models: the next level of AI in ART**. *Human Reproduction*. 2025.
- A. Grishina, V. Liventsev, A. Härmä, L. Moonen. **Fully Autonomous Programming Using Iterative Multi-Agent Debugging With Large Language Models**. *ACM Transactions on on Evolutionary Learning and Optimization*. 2025.
- A. Solheim, G. Ringstad, P. K. Eide, K. Mardal. **Geometry Reduced Order Modeling (GROM) with application to modeling of glymphatic function**. *Brain Research Bulletin*. 2025.
- C. Royaux, J. Mihoub, M. Jossé, D. Pelletier, O. Norvez, Y. Reecht, et al. **Guidance framework to apply best practices in ecological data analysis: Lessons learned from building Galaxy-Ecology**. *GigaScience*. 2025.
- V. Schøyen, K. Beshkov, M. B. Pettersen, E. Hermansen, K. Holzhausen, A. Malthe-Sørenssen, et al. **Hexagons all the way down: Grid cells as a conformal isometric map of space**. *PLoS Computational Biology*. 2025.
- I. Garcia, K. Dame, V. Charwat, B. Siemons, H. Finsberg, B. Bhardwaj, et al. **Human induced pluripotent stem cell-derived cardiomyocytes and their use in a cardiac organ-on-a-chip to assay electrophysiology, calcium and contractility**. *Nature Protocols*. 2025.
- M. Willmes, A. V. Aamodt, B. S. Andreassen, L. V. T. Haug, E. Steinkjer, G. M. Østborg, et al. **Identifying escaped farmed salmon from fish scales using deep learning**. *Biology Methods & Protocols*. 2025.
- H. Sartaj, J. Boudjadar, M. Frasheri, S. Ali, P. G. Larsen. **Identifying Uncertainty in Self-Adaptive Robotics with Large Language Models**. *IEEE Software*. 2025.
- A. H. Z. Nik, M. Riegler, P. Halvorsen. **Impact of decoding strategies on GPU energy usage in large language model text generation**. *Scientific Reports*. 2025.
- L. Myklebust, H. Arevalo, C. Daversin-Catty, S. Wall, H. Finsberg. **Impact of segregation scheme on performance of a strongly coupled cardiac electromechanical solver**. *Computer Methods in Applied Mechanics and Engineering*. 2025.
- K. Yamamoto, D. A. Bruneau, J. S. Dokken, D. A. Steinmam, K. Valen-Sendstad. **Impact of Wall Property and Flow Rate Assumptions on Simulations of Flow-Induced Vibration of Intracranial Aneurysms**. *International Journal for Numerical Methods in Biomedical Engineering*. 2025.
- A. Coca-Castro, A. Fouilloux, R. B. Lourenço, A. McDonald, Y. Rao, J. Hosking. **Improving the reproducibility in geoscientific papers: lessons learned from a Hackathon in climate science**. *Environmental Data Science*. 2025.
- T. Nguyen, U. Dang, T. L. Vo, P. Halvorsen, M. Riegler. **Imputation Using Training Labels and Classification via Label Imputation**. *IEEE Access*. 2025.
- M. Mora, I. van Herck, C. Daversin-Catty, H. Finsberg, J. Llopis-Lorente, J. Saiz, et al. **Insights from electromechanical simulations to assess omecamtiv mecarbil efficacy in heart failure**. *The Journal of Physiology*. 2025.
- L. Priego, M. Mora, J. Llopis-Lorente, H. Finsberg, C. Daversin-Catty, I. van Herck, et al. **Integration of Electrophysiological and Mechanical Biomarkers in Cardiac Risk Assessment Models**. *Computer Methods and Programs in Biomedicine*. 2025.
- M. Fida, A. H. M. Ahmed, A. S. Arsalaan. **IoTShield: Defending IoT Systems Against Prevalent Attacks Using Programmable Networks**. *IEEE Access*. 2025.
- K. Beshkov, J. Verhellen, M. Lepperød. **Isometric Representations in Neural Networks Improve Robustness**. *Scientific Reports*. 2025.
- M. Jørgensen. **IT-utvikling i norsk offentlig sektor: Bedre enn sitt rykte, men mye som kan bli bedre**. *Stat & Styring*. 2025.
- M. B. Pettersen, V. Schøyen, A. Malthe-Sørenssen, M. Lepperød. **Learning place cells and remapping by decoding the cognitive map**. *eLife*. 2025.
- R. K. Jaiswal, M. Elnourani, S. Deshmukh, B. Beferull-Lozano. **Leveraging Transfer Learning for Radio Map Estimation via Mixture of Experts**. *IEEE Transactions on Cognitive Communications and Networking*. 2025.
- L. Li, H. Hoefsloot, B. M. Bakker, D. Horner, M. A. Rasmussen, A. K. Smilde, et al. **Longitudinal metabolomics data analysis informed by mechanistic models**. *Metabolites*. 2025.
- H. Sartaj, S. Ali, J. M. Gjøby. **MeDeT: Medical Device Digital Twins Creation with Few-shot Meta-learning**. *ACM Transactions on Software Engineering and Methodology*. 2025.
- H. Spieker, N. Lazaar, A. Gotlieb, N. Belmecheri. **Metamorphic Testing of Multimodal Human Trajectory Prediction**. *Information and Software Technology*. 2025.
- P. Salehi, S. A. Sheshkal, V. Thambawita, M. Riegler, P. Halvorsen. **Multimodal Integration Challenges in Emotionally Expressive Child Avatars for Training Applications**. *Nordic Machine Intelligence*. 2025.

- L. Le, T. Nguyen, M. Riegler, P. Halvorsen, B. T. Nguyen. **Multimodal Missing Data in Healthcare: A Comprehensive Review and Future Directions**. Computer Science Review. 2025.
- M. O. Frantzvaag, A. Chatterjee, D. Ghose, S. P. Dash. **MusicReco: Interactive Interface Modeling With User-Centered Design in a Music Recommendation System**. IEEE Access. 2025.
- E. Garcia-Ceja, A. Stautland, M. Riegler, P. Halvorsen, S. Hinojosa, G. Ochoa-Ruiz, et al. **OBP-Psychiatric, a motor activity dataset of patients diagnosed with major depression, schizophrenia, and ADHD**. Scientific Data. 2025.
- J. Brunátová, J. S. Dokken, K. Valen-Sendstad, J. Hron. **On the numerical evaluation of wall shear stress using the finite element method**. International Journal for Numerical Methods in Biomedical Engineering. 2025.
- L. M. Lopez-Ramos, G. Pluktaite, C. K. T. Bui, J. Amann, T. Haven, V. I. Madai, et al. **Operationalizing AI ethics in medicine—a co-creation workshop study**. BMC Med Ethics. 2025.
- C. Schenker, X. Wang, D. Horner, M. A. Rasmussen, E. A. Ataman. **PARAFAC2-based Coupled Matrix and Tensor Factorizations with Constraints**. IEEE Journal of Selected Topics in Signal Processing. 2025.
- M. de Rooij, B. Erdős, N. A. W. van Riel, S. D. O'Donovan. **Physiology-informed regularisation enables training of universal differential equation systems for biological applications**. PLOS Computational Biology. 2025.
- E. Mendiluze, S. Ali, T. Yue, P. Arcaini. **Quantum circuit mutants: Empirical analysis and recommendations**. Empirical Software Engineering. 2025.
- X. Wang, S. Ali, P. Arcaini, N. R. Veeragavan. **Quantum Neural Network Classifier for Cancer Registry System Testing: A Feasibility Study**. ACM Transactions on Software Engineering and Methodology. 2025.
- A. Muqheet, S. Ali, P. Arcaini. **QUIET: A Tool for Sampling-Based Quantum Noise Error Mitigation**. IEEE Software. 2025.
- K. H. Jæger, W. E. Louch, A. Tveito. **Reduced gap junction coupling amplifies the effects of cardiomyocyte variability and destabilizes the heartbeat**. Physiological Reports. 2025.
- H. Sartaj, S. Ali, J. M. Gjøby. **REST API Testing in DevOps: A Study on an Evolving Healthcare IoT Application**. ACM Transactions on Software Engineering and Methodology. 2025.
- A. Alphonse, C. Geiersbach, M. Hintermüller, T. M. Surowiec. **Risk-averse optimal control of random elliptic variational inequalities**. ESAIM: Control, Optimisation and Calculus of Variations. 2025.
- B. Torpmann-Hagen, M. Riegler, P. Halvorsen, D. Johansen. **Runtime Verification for Visual Deep Learning Systems With Loss Prediction**. IEEE Access. 2025.
- S. Fatima, K. O. Ellefsen, L. Moonen. **Self Healing of a Mixed Autonomy Traffic System Using Reinforcement Learning and Attention**. IEEE Open Journal of Intelligent Transportation Systems. 2025.
- E. A. Francis, J. G. Laughlin, J. S. Dokken, H. Finsberg, C. T. Lee, M. E. Rognes, et al. **Spatial modeling algorithms for reactions and transport in biological cells**. Nature Computational Science. 2025.
- M. H. Mesa, G. C. Garcia, F. Hoerndli, K. J. McCabe, P. Rangamani. **Spine apparatus modulates Ca²⁺ in spines through spatial localization of sources and sinks**. Journal Of Physiology. 2025.
- Z. Xue, M. Wen, J. Yang, M. Tang, Z. Luo, J. Feng, et al. **SSpMM: Efficiently Scalable SpMM Kernels Across Multiple Generations of Tensor Cores**. IEEE Transactions on Parallel and Distributed Systems. 2025.
- M. Los, T. Sluzalec, M. Paszynski, E. Valseeth. **Stabilization of isogeometric finite element method with optimal test functions computed from $\$L_2\$$ norm residual minimization**. Journal of Computational and Applied Mathematics. 2025.
- A. Chatterjee, M. Riegler, K. Ganesh, P. Halvorsen. **Stress management with HRV following AI, semantic ontology, genetic algorithm and tree explainer**. Scientific Reports. 2025.
- A. Chatterjee, V. Thambawita, M. Riegler, P. Halvorsen. **Supervised Anomaly Detection in Univariate Time-Series Using 1D Convolutional Siamese Networks**. IEEE Access. 2025.
- M. H. Mesa, K. J. McCabe, P. Rangamani. **Synaptic cleft geometry modulates NMDAR opening probability by tuning neurotransmitter residence time**. Biophysical Journal. 2025.
- M. Mørup, E. A. Ataman, T. Adali. **Tensor and Coupled Decompositions for Interpretable Pattern Discovery in Multiset and Multimodal Functional Neuroimaging Data**. IEEE Signal Processing Magazine. 2025.
- X. Wang, S. Ali, D. Taibi. **The Landscape of Quantum Software Testing Tools**. IEEE Software. 2025.
- J. S. Dokken, P. E. Farrell, B. Keith, I. P. Papadopoulos, T. M. Surowiec. **The latent variable proximal point algorithm for variational problems with inequality constraints**. Computer Methods in Applied Mechanics and Engineering. 2025.
- B. Mutsvairo, K. S. Orgeret, M. de Bruijn, L. Bruls, D. T. Schroeder, M. G. Cissé, et al. **The Messenger (not the Medium) Is the Message? Uncovering Journalists' Perceptions of Digital Disinformation in Conflict Countries**. Journalism Studies. 2025.
- L. Lunsonga, A. G. Edwards, P. Light. **The Sodium/Glucose Cotransporter 2 Inhibitor Empagliflozin Inhibits Long QT 3 Late Sodium Currents in a Mutation Specific Manner**. Journal of Molecular and Cellular Cardiology. 2025.
- E. Isufi, G. Leus, B. Beferull-Lozano, S. Barbarossa, P. Di Lorenzo. **Topological Signal Processing and Learning: Recent Advances and Future Challenges**. Signal Processing. 2025.
- C. Chatzis, C. Schenker, M. Pfeffer, E. A. Ataman. **tPARAFAC2: Tracking evolving patterns in (incomplete) temporal data**. Data Mining and Knowledge Discovery. 2025.
- H. Sartaj, S. Ali, J. M. Gjøby. **Uncertainty-Aware Environment Simulation of Medical Devices Digital Twins**. Software and Systems Modeling. 2025.
- M. Riegler, K. H. Hellton, V. Thambawita, H. L. Hammer. **Using large language models to suggest informative prior distributions in Bayesian regression analysis**. Scientific Reports. 2025.
- D. Jha, V. Sharma, D. Banik, D. Bhattacharya, K. Roy, S. Hicks, et al. **Validating polyp and instrument segmentation methods in colonoscopy through Medico 2020 and MedAI 2021 Challenges**. Medical Image Analysis. 2025.
- K. Yamamoto, D. A. Bruneau, J. Ring, J. S. Dokken, K. Valen-Sendstad. **VaSP: Vascular Fluid–Structure Interaction Pipeline**. SoftwareX. 2025.
- K. Yamamoto, D. A. Bruneau, J. Ring, J. S. Dokken, K. Valen-Sendstad. **VaSP: Vascular Fluid–Structure Interaction Pipeline**. SoftwareX. 2025.
- I. M. Ayala, H. Raddum. **Zeroed Out: Cryptanalysis of Weak PRFs in Alternating Moduli**. IACR Transactions on Symmetric Cryptology. 2025.
- N. Japke, M. Grambow, C. Laaber, D. Bermbach. **μ OpTime: Statically Reducing the Execution Time of Microbenchmark Suites Using Stability Metrics**. ACM Transactions on Software Engineering and Methodology. 2025.

BOOKS

A.D. Haraldsrud, J. Sundnes. **Programming for naturvitenskap og matematikk**. 2025.

REFEREED PROCEEDINGS

Sarkhoosh MH, Gautam S, Midoglu C, Sabet SS, Kupka T, Halvorsen P. **HockeyAI: A Multi-Class Ice Hockey Dataset for Object Detection**. MMSys '25: Proceedings of the 16th ACM Multimedia Systems Conference. 2025.

Sarkhoosh MH, Gautam S, Midoglu C, Sabet SS, Kupka T, Halvorsen P. **HockeyRink: A Dataset for Precise Ice Hockey Rink Keypoint Mapping and Analytics**. MMSys '25: Proceedings of the 16th ACM Multimedia Systems Conference. 2025.

Lyngar S, Storrøll M, Hannay JE. **A Benefit/Cost Analysis Tool for Better Benefits Management**. Human-Computer Interaction International 2025. 2025.

Kasineshan N, Subramanieam V, Yogeswaran T, Liyanage S, Devindi I, Ragel R, et al. **A Comparative Study on Generalized Automated Medical Image Segmentation for Dataset Building**. 2025 5th International Conference on Advanced Research in Computing (ICARC). 2025.

Rafiee M, Ocampo AF, Taherkordi A, Alay Ö. **A Proactive Performance Prediction Framework for Virtual Network Functions in 5G Networks**. International Conference on Network and Service Management (CNSM). 2025.

Mølmen Høst A, Lison P, Moonen L. **A Systematic Approach to Predict the Impact of Cybersecurity Vulnerabilities Using LLMs**. IEEE International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom). 2025.

Wu J, Lu C, Arrieta A, Ali S. **A Tool for Benchmarking Large Language Models' Robustness in Assessing the Realism of Driving Scenarios**. 2nd ACM/IEEE International Conference on AI-powered Software (AIware 2025). 2025.

Patón-Romero JD, Ngereja B, Hannay JE, Jørgensen M. **Actual Practices from Practitioners in Benefits Management in Digitalization Projects**. 29th International Conference on Evaluation and Assessment in Software Engineering (EASE 2025). 2025.

Mostad OÅ, Lin H, Rosnes E, Lee D, Lai C. **Advancing Finite-Length Quantum Error Correction using Generalized Bicycle Codes**. 2025 13th International

Symposium on Topics in Coding (ISTC). 2025.

Jørgensen M. **Analyzing and interpreting software development cost estimation error**. 2025 IEEE/ACM International Workshop on Methodological Issues with Empirical Studies in Software Engineering (WSESE). 2025.

Guichard E, Reimers F, Kvalsund M, Lepperød M, Nichele S. **ARC-NCA: Towards Developmental Solutions to the Abstraction and Reasoning Corpus**. ALIFE 2025: Ciphers of Life: Proceedings of the Artificial Life Conference. 2025.

Monopoli G, Sadeghinia MJ, Aabel EW, Ribe M, Castrini AI, Hasselberg N, et al. **Arrhythmic Mitral Valve Syndrome: Insights from Left Ventricular End-Systolic Shape Analysis**. Functional Imaging and Modeling of the Heart (FIMH 2025). 2025.

Lu C, Wu J, Ali S, Olsen ML. **Assessing the Uncertainty and Robustness of the Laptop Refurbishing Software**. 2025 IEEE Conference on Software Testing, Verification and Validation (ICST). 2025.

Soliveri L, Poloni S, Cabrini G, Brambilla P, Zerbi S, Caroli A, et al. **Association between high-frequency wall vibrations and adverse vascular remodeling in arteriovenous fistulae: a fluid-structure interaction longitudinal study**. Vascular Access Society Congress. 2025.

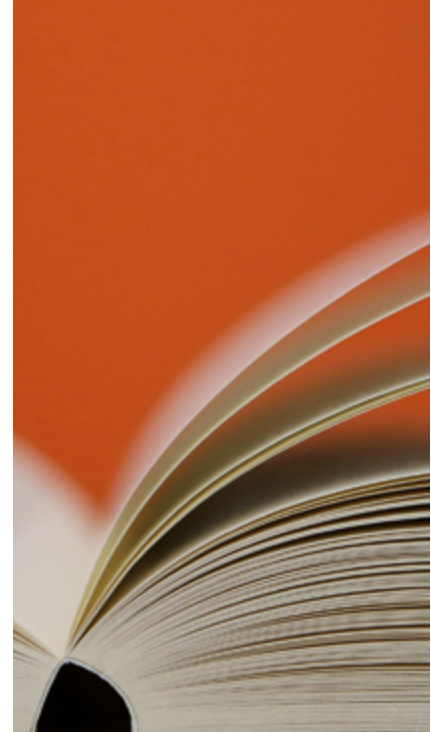
Belmecheri N, Gotlieb A, Lazaar N, Spieker H. **Automatic Cause Determination in Road Scene Understanding Using Qualitative Reasoning and Four-Valued Logic**. Advancing Automated Driving in Highly Interactive Scenarios through Behavior Prediction, Trustworthy AI, and Remote Operations @ 36th IEEE Intelligent Vehicles Symposium (IV). 2025.

Borgli H, Riegler M, Stensland HK, Halvorsen P. **Automatic Prompt Generation for Zero-Shot Single Object Frame Segmentation in Videos Using Classification Models: A Polyp Case Study**. IEEE International Symposium on Computer-Based Medical Systems (CBMS). 2025.

Borgli H, Stensland HK, Halvorsen P. **Better Image Segmentation with Classification: Guiding Zero-Shot Models Using Class Activation Maps**. International Conference on Multimedia Modeling (MMM). 2025.

Gross D, Spieker H, Gotlieb A. **Bounded PCTL Model Checking of Large Language Model Outputs**. 37th IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2025). 2025.

Canbolat A, Money R, Beferull-Lozano B. **Cellular Autoregressive Higher-Order Models**. 2025 33rd European Signal Processing Conference (EUSIPCO). 2025.



Gross D, Spieker H. **Co-Activation Graph Analysis of Safety-verified and Explainable Deep Reinforcement Learning Policies**. 17th International Conference on Agents and Artificial Intelligence (ICAART). 2025.

Hort M, Moonen L. **Codehacks: A Dataset of Adversarial Tests for Competitive Programming Problems Obtained From Codeforces**. 2025 IEEE Conference on Software Testing, Verification and Validation (ICST). 2025.

Yakimenka Y, Lin H, Rosnes E, Kliever J. **Communication-constrained private decentralized online personalized mean estimation**. IEEE Information Theory Workshop (ITW). 2025.

Trotter JD, Ekmekçibaşı S, Sağbılı D, Langguth J, Cai X, Unat D. **CPU- and GPU-initiated Communication Strategies for Conjugate Gradient Methods on Large GPU Clusters**. SC '25: Proceedings of the International Conference for High Performance Computing, Networking, Storage and Analysis. 2025.

Flórez-Gutiérrez A, Lambooij E, Leurent G, Raddum H, Tiessen T, Verbauwhe M. **Cryptanalysis of Full SCARF**. Advances in Cryptology – EUROCRYPT 2025. 2025.

Le L, Nguyen TX, Nguyen T, Riegler M, Halvorsen P, Nguyen BT. **Data Imputation for Noisy Time-Series Data in Healthcare**. International Conference on Computational Collective Intelligence. 2025.

Chatzis C, Schenker C, Cohen JE, Ataman EA. **dCMF: Learning interpretable evolving patterns from temporal multiway data**. 33rd European Signal Processing Conference (EUSIPCO). 2025.

Altan D, Marijan D, Kholodna T. **Deep learning-based vessel traffic prediction using historical density and wave features**. 17th International Conference on Agents and Artificial Intelligence (ICAART). 2025.

Ruiz E, Beferull-Lozano B. **Doubly Truncated Mode Kriging**. 2025 IEEE Statistical Signal Processing Workshop (SSP). 2025.

Abdelmonem M, Holzbaur L, Raddum H, Zeh A. **Efficient Error Detection Methods for the Number Theoretic Transforms in Lattice-Based Algorithms**. Constructive Approaches for Security Analysis and Design of Embedded Systems. CASCADE 2025. 2025.

Guichard E, Reimers F, Kvalsund M, Lepperød M, Nichele S. **Engramna: a neural cellular automaton model of memory transfer**. ALIFE 2025: Ciphers of Life: Proceedings of the Artificial Life Conference. 2025.

Belmecheri N, Gotlieb A, Lazaar N, Spieker H. **Explainable Scene Understanding with Qualitative Representations and Graph Neural Networks**. Advancing Automated Driving in Highly Interactive Scenarios through Behavior Prediction, Trustworthy AI, and Remote Operations @ 36th IEEE Intelligent Vehicles Symposium (IV). 2025.

Duric A, Tørresen J, Riegler M, Hammer HL. **Explanation Supported Learning: Improving Prediction Performance with Explainable Artificial Intelligence**. IEEE 38th International Symposium on Computer-Based Medical Systems (CBMS). 2025.

Sarkhoosh MH, Øye F, Sørli HN, Vu NH, Johansen D, Midoglu C, et al. **ExposureEngine: Oriented Logo Detection and Sponsor Visibility Analytics in Sports Broadcasts**. IEEE International Symposium on Multimedia (ISM). 2025.

Samuelson M, Dreibholz T, Mazumdar S. **FL+2: Multi-Layered Privacy Protection for Federated Learning-based Medical Diagnostic**. 24th IEEE International Symposium on Parallel and Distributed Computing (ISPD). 2025.

Sharma A, Altan D, Marijan D, Maressa A. **From high-frequency sensors to noon reports: Using transfer learning for shaft power prediction in maritime**. International Joint Conference on Computational Intelligence. 2025.

Pontolillo G, Muqet A, Ali S, Mousavi M. **From Ideal to Noisy: Adapting Property-Based Testing for Real-World Noisy Quantum Computers**. IEEE International Conference on Quantum Computing and Engineering (QCE). 2025.

Bollauf M, Lin H. **Generalized Theta Series of a Lattice**. IEEE Information Theory Workshop. 2025.

Yamamoto K, Soliveri L, Bozzetto M, Campiglio CE, Remuzzi A, Lanterna LAA, et al. **High-frequency Wall Vibration Correlates With The Growth Of Vertebrobasilar Dolichoectasia Aneurysm**. 30th Congress of the European Society of Biomechanics. 2025.

Dreibholz T, Mazumdar S. **HiPerConTracer 3.0: Transport-level Packet Routing Analysis Tool**. 33rd Euromicro International Conference on Parallel, Distributed and Network-Based Processing (PDP). 2025.

Sarkhoosh MH, Midoglu C, Sabet SS, Kupka T, Halvorsen P. **Hockey2D: A Keypoint-Based Framework for Ice Hockey Rink Localization and Object Mapping**. IEEE International Conference on Content-Based Multimedia Indexing (CBMI). 2025.

Sarkhoosh MH, Gautam S, Midoglu C, Sabet SS, Kupka T, Halvorsen P. **HockeyOrient: A Dataset for Ice Hockey Player Orientation Classification**. MMSys '25: Proceedings of the 16th ACM Multimedia Systems Conference. 2025.

Ionescu B, Müller H, Hicks S, Gautam S, Riegler M, Thambawita V, et al. **ImageCLEF 2025: Multimedia Retrieval in Medical, Social Media and Content Recommendation Applications**. Advances in Information Retrieval. 2025.

Mostad OÅ, Rosnes E, Lin H. **Improved Construction of Generalized Quantum Tanner Codes**. 2025 13th International Symposium on Topics in Coding (ISTC). 2025.

Bariant A, Boeuf A, Briaud P, Hostettler M, Øygarden M, Raddum H. **Improved Resultant Attack Against Arithmetization-Oriented Primitives**. Advances in Cryptology – CRYPTO 2025. 2025.

Campiglio CE, Carrara E, Poloni S, Ripamonti M, Soliveri L, Valen-Sendstad K, et al. **In-vitro investigation of the role of mechanical vibrations on vascular remodeling**. Advances in Mechanobiology Congress. 2025.

Gautam S, Riegler M, Halvorsen P. **Kvasir-VQA-x1:A Multimodal Dataset for Medical Reasoning and Robust MedVQA**

in Gastrointestinal Endoscopy. Data Engineering in Medical Imaging. DEMI 2025. 2025.

Knutsen L, Larsson KK, Hannay JE. **Learning from successful urgent automation of case processing of public services during COVID-19**. ACM/IEEE International Workshop on Software-intensive Business (IWSiB '25). 2025.

Djenouri Y, Belmecheri N, Michalak T, Dubiński J, Belbachir AN, Yazidi A. **Learning Graph Representation of Agent Diffusers**. AAMAS '25: Proceedings of the 24th International Conference on Autonomous Agents and Multiagent Systems. 2025.

Isaku E, Laaber C, Sartaj H, Ali S, Schwitalla T, Nygård J. **LLMs in the Heart of Differential Testing: A Case Study on a Medical Rule Engine**. ICST 2025, 18th IEEE International Conference on Software Testing, Verification and Validation. 2025.

Evang JM, Dreibholz T, Mazumdar S. **Measuring Mobile Network Coverage during Extended Road Trips in the Nordics**. 15th International Workshop on Resilient Networks Design and Modeling (RNDM). 2025.

Gautam S, Thambawita V, Riegler M, Halvorsen P, Hicks S. **Medico 2025: Visual Question Answering for Gastrointestinal Imaging**. MediaEval 2025. 2025.

Hellan O. **Mesh Motion in fluid-structure interaction with deep operator networks**. Numerical Mathematics and Advanced Applications ENUMATH 2023. 2025.

Langguth J, Trotter JD, Cai X. **Modelling Load Imbalance In Shared Memory Multicore Systems**. Proceedings of the SC '25 Workshops of the International Conference for High Performance Computing, Networking, Storage and Analysis. 2025.

Akbari R, Schroeder DT, Filkukova P, Langguth J. **Monitoring Digital Wildfires: a Large-Scale Dataset of COVID-19 Conspiracy Tweets Created via Fast NLP Inference using the Graphcore IPU**. 2025 IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW). 2025.

Rolfjord S, Fatima S, von Arnim HA, Baselizadeh A. **Multimodal Transfer Learning for Privacy in Human Activity Recognition**. 2025 34th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN). 2025.

Havas T, Lin H, Rosnes E, Lai C. **On Finite-Blocklength Noisy Classical-Quantum Channel Coding With Amplitude Damping Errors**. IEEE Information Theory Workshop. 2025.



Arouna A, Fontein R, Meijerink B, Livadariu I, Jonker M. **On the Role of Forward-Confirmed reverse DNS in E-mail Authentication**. Network Traffic Measurement and Analysis Conference. 2025.

Canbolat A, Money R, Beferull-Lozano B. **Online Topology Identification of Higher-Order Cell Structures**. 2025 IEEE 35th International Workshop on Machine Learning for Signal Processing (MLSP). 2025.

Ahmed AHM, Dreibholz T, Michelinakis FI, Cicic T. **Open 5G Testbed: A Cyber Range Platform for Security Research**. 18th Workshop on Cyber Security Experimentation and Test (CSET) in conjunction with the 41st Annual Computer Security Applications Conference (ACSAC). 2025.

Ali J, Abbas MT, Caso G, Al-Selwi AS, Grinnemo K, Michelinakis FI. **Optimizing Energy Consumption in NB-IoT Networks through Enhanced Cell Selection and Reselection Strategy**. 2025 IEEE 26th International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM). 2025.

Isaku E, Sartaj H, Ali S, Sanguino B, Wang T, Li G, et al. **Out of Distribution Detection in Self-adaptive Robots with AI-powered Digital Twins**. 40th IEEE/ACM International Conference on Automated Software Engineering, ASE 2025. 2025.

Ionescu B, Müller H, Stanciu D, Andrei A, Hicks S, Gautam S, et al. **Overview of ImageCLEF 2025: Multimedia Retrieval in Medical, Social Media and Content Recommendation Applications**. Experimental IR Meets Multilinguality, Multimodality, and Interaction: 16th International Conference of the CLEF Association, CLEF 2025, Madrid, Spain, September 9–12, 2025. 2025.

Gautam S, Thambawita V, Riegler M, Halvorsen P, Hicks S. **Overview of ImageCLEFmedical 2025 – Visual Question Answering and Synthetic Image Generation for Gastrointestinal Tract**. ImageCLEF 2025. 2025.

Gross D, Spieker H. **PCTL Model Checking for Temporal RL Policy Safety Explanations**. ACM Symposium On Applied Computing (SAC). 2025.

Gautam S, Riegler M, Halvorsen P. **Point, Detect, Count: Multi-Task Medical Image Understanding with Instruction-Tuned Vision-Language Models**. IEEE 38th International Symposium on Computer-Based Medical Systems (CBMS). 2025.

Wolff C, Arras P, Čiutienė R, Cruz C, Duobienė J, Hermann E, et al. **Projects for the Digital Transformation**. 2025 IEEE European Technology and Engineering Management Summit (E-TEMS). 2025.

Spieker H, Matricon T, Belmecheri N, Betten JE, Le Bartz Lyan G, Borges H, et al. **Prompting for Performance: Exploring LLMs for Configuring Software**. 37th IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2025). 2025.

Belmecheri N. **QualiNet: Acquiring Bird's Eye View Qualitative Spatial Representation from 2D Images In Automated Vehicle Perception**. 32nd International Symposium on Temporal Representation and Reasoning (TIME 2025). 2025.

Wang X, Xu Q, Arcaini P, Ali S, Peyrucain T. **Quantum Machine Learning-based Test Oracle for Autonomous Mobile Robots**. 2025 40th IEEE/ACM International Conference on Automated Software Engineering (ASE). 2025.

Spieker H, Betten JE, Gotlieb A, Lazaar N, Belmecheri N. **Rashomon in the Streets: Explanation Ambiguity in Scene Understanding**. AAAI Fall Symposium: AI Trustworthiness and Risk Assessment for Challenged Contexts (ATRACC). 2025.

Catania L, Allegra D, Capogrosso L, Nguyen T. **Reproducibility Companion Paper - NIF: A Fast Implicit Image Compression with Bottleneck Layers and Modulated Sinusoidal Activations**. ACM International Conference on Multimedia (ACM MM). 2025.

Pontes-Filho S, Nichele S, Lepperød M. **Reservoir Computing with Evolved Critical Neural Cellular Automata**. ALIFE 2025: Ciphers of Life: Proceedings of the Artificial Life Conference. 2025.

Betten JE, Mazouni Q, Gross D, Lind P, Spieker H. **Reusable Test Suites for Reinforcement Learning**. International Conference on Testing Software and Systems. 2025.

Nylænder K, Arrieta A, Ali S, Arcaini P. **Search-based Generation of Waypoints for Triggering Self-Adaptations in Maritime Autonomous Vessels**. GECCO '25: Proceedings of the Genetic and Evolutionary Computation Conference. 2025.

Hort M, Vidziunas L, Moonen L. **Semantic-Preserving Transformations as Mutation Operators: A Study on Their Effectiveness in Defect Detection**. 2025 IEEE International Conference on Software Testing, Verification and Validation - Mutation Workshop. 2025.

Banerjee A, Welter L, Amat AGI, Wachter-Zeh A, Rosnes E. **Sequential decoding of multiple traces over the syndrome trellis for synchronization errors**. IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP). 2025.

Djenouri Y, Belbachir AN, Belhadi A, Belmecheri N, Michalak T. **Shapley Consensus Deep Learning for Ensemble**

Pruning. 2025 IEEE/CVF Winter Conference on Applications of Computer Vision (WACV). 2025.

Kroknes M, Tanilkan SS, Hannay JE, Schulz T. **Simulations for Optimizing Patient Transfer between Hospital and Nursing Home**. Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management. 2025.

Sarkhoosh MH, Midoglu C, Sabet SS, Kupka T, Halvorsen P. **SmartCrop-R: Adaptive Real-Time Video Cropping for Sports**. Mile-High Video Conference. 2025.

Gautam S, Midoglu C, Thambawita V, Riegler M, Halvorsen P, Shah M. **SoccerChat: Integrating Multimodal Data for Enhanced Soccer Game Understanding**. 2025 International Conference on Content-Based Multimedia Indexing (CBMI). 2025.

Gerhardt J, Langguth J. **Solution of Backtracking Problems on Tile-Centric AI Accelerators**. Proceedings of the 22nd ACM International Conference on Computing Frontiers (CF '25). 2025.

Braye C, Bricout A, Gotlieb A, Lazaar N, Vallet Q. **TAID : Un outil pour évaluer la confiance des systèmes médicaux intelligents**. EGC: Extraction et Gestion des Connaissances. 2025.

Acher M, Gotlieb A, Spieker H, Le Bartz Lyan G. **Teaching Reproducibility and Embracing Variability: From Floating-Point Experiments to Replicating Research**. Proceedings of the 3rd ACM Conference on Reproducibility and Replicability. 2025.

Vallecillos-Ruiz F, Hort M, Moonen L. **The Art of Repair: Optimizing Iterative Program Repair with Instruction-Tuned Models**. 29th International Conference on Evaluation and Assessment in Software Engineering (EASE). 2025.

Evang JM. **The history of IPv6 in Norway**. 2025 IEEE History of Electrotechnology Conference (HISTELCON). 2025.

Machacek R, Grishina A, Hort M, Moonen L. **The Impact of Fine-Tuning Large Language Models on Automated Program Repair**. IEEE International Conference on Software Maintenance and Evolution (ICSME). 2025.

Mazumdar S, Dreibholz T. **Towards a Privacy-Aware Communication for Disaggregated Fog Platform**. 24th IEEE International Symposium on Parallel and Distributed Computing (ISPDC). 2025.

Valaker S, Hannay JE, Seehuus RA, Rise ØR. **Trust in technology and comprehensive decision making: The mediating role of human-machine interaction and perception of route functionality**. 30th International Command and Control Research & Technology Symposium. 2025.

Wu J. **Uncertainty-Aware Autonomous Driving System Testing with Large Language Models**. 2025 IEEE Conference on Software Testing, Verification and Validation (ICST). 2025.

Iaquinta J, Fouilloux A. **Unlocking the Potential of Containers in Scientific Computing to Achieve Bitwise Reproducibility, Portability and Performance**. Nordic e-Infrastructure Tomorrow. 2025.

Ruiz E, Lopez-Ramos LM, Beferull-Lozano B. **Upsampled Vector Autoregressive Processes**. 2025 33rd European Signal Processing Conference (EUSIPCO). 2025.

Carrara E, Poloni S, Ripamonti M, Valen-Sendstad K, Remuzzi A, Bozzetto M, et al. **Vascular remodeling: an in-vitro investigation of the role of mechanical vibrations**. TERMIS25, Tissue Engineering and Regenerative Medicine International Society. 2025.

Poloni S, Soliveri L, Ring J, Remuzzi A, Bozzetto M, Valen-Sendstad K. **Vascular wall vibrations of arteriovenous fistula propagate through the surrounding tissue: A fluid structure interaction study**. 30th Congress of the European Society of Biomechanics. 2025.

Sarkhoosh MH, Midoglu C, Sabet SS, Kupka T, Halvorsen P. **VoiceVision : AI-Powered Speaker-Aware Cropping and Content Indexing for Multi-Speaker Videos**. IEEE International Conference on Content-Based Multimedia Indexing (CBMI). 2025.

TECHNICAL REPORTS

Mølmen Høst A, Lison P, Moonen L. A **Systematic Approach to Predict the Impact of Cybersecurity Vulnerabilities Using LLMs**.

Hort M, Moonen L. **Codehacks: A Dataset of Adversarial Tests for Competitive Programming Problems Obtained From Codeforces**.

Grishina A, Liventsev V, Härmä A, Moonen L. **Fully Autonomous Programming Using Iterative Multi-Agent Debugging With Large Language Models**.

Gautam S, Riegler M, Halvorsen P, Riegler M. **HEDGE: Hallucination Estimation via Dense Geometric Entropy for VQA with Vision-Language Models**.

Hort M, Vallecillos-Ruiz F, Moonen L. **Large Language Models: A Survey of Surveys**.

Wu J, Lu C, Arrieta A, Ali S. **Multi-Objective Reinforcement Learning for Critical Scenario Generation of Autonomous Vehicles**.

Cicic T, Gomola A, Michelinakis FI. **Norske mobilnett i 2024**.

Ruiz E, Kousias K, Kumar S, Tilleman M, Beferull-Lozano B, Alay Ö, Griwodz C, Filipposchi A, Millán J, Bergamasco M. **On the limits of trajectory prediction for hand movement trajectories with motion-capture sensors**.

Hort M, Vidziunas L, Moonen L. **Semantic-Preserving Transformations as Mutation Operators: A Study on Their Effectiveness in Defect Detection**.

Vallecillos-Ruiz F, Hort M, Moonen L. **The Art of Repair: Optimizing Iterative Program Repair With Instruction-Tuned Models**.

Machacek R, Grishina A, Hort M, Moonen L. **The Impact of Fine-tuning Large Language Models on Automated Program Repair**.

Gross D, Betten JE, Spieker H. **Translating the Rashomon Effect to Sequential Decision-Making Tasks**.

Gross D, Spieker H, Gotlieb A. **Verifying Memoryless Sequential Decision-making of Large Language Models**.

Vallecillos-Ruiz F, Hort M, Moonen L. **Wisdom and Delusion of LLM Ensembles for Code Generation and Repair**.

PRESENTATIONS

Ataman EA. **(Coupled) Tensor Factorizations – as a tool to develop knowledge-guided data-driven methods for extracting insights from complex data**. In: 18th Annual IBEC (Institute for Bioengineering of Catalonia) Symposium; 2025. Barcelona, Spain.

Rognes ME. **Brain membranes and vasculature**. A computational mathematics tale of dimensional gaps. In: XI International Conference on Coupled Problems in Science and Engineering; 2025. Sardinia, Italy.

Rognes ME. **Brain membranes and vasculature: a computational mathematics tale of dimensional gaps**. In: Mathematical challenges in brain mechanics, Center for Advanced Study, Norwegian Academy of Science and Letters; 2025.

Rognes ME. **Brain membranes and vasculature: a computational mathematics tale of dimensional gaps**. In: 30th Biennial Numerical Analysis Conference, University of Strathclyde; 2025. Glasgow, Scotland.

Moonen L. **Coding with the Machine: Promises and Perils in AI-Driven Software Engineering**. In: 16th International Conference on Internetware; 2025.

Ataman EA. **Coupled Matrix/Tensor Factorizations – as a tool to develop knowledge-guided data-driven methods for extracting insights from complex data**. In: 23rd IEEE Statistical Signal Processing Workshop (SSP 2025); 2025. Edinburgh, UK.

Moonen L. **It's the end of source code analysis as we know it (and we'll be fine)**. In: IEEE International Conference on Source Code Analysis and Manipulation; 2025. Auckland, New Zealand.

Kuchta M. **Preconditioning the brain**. In: Mathematical Challenges in Brain Mechanics; 2025.

Patón-Romero JD. **Women and IT... What is the Challenge?** In: Simula Research Laboratory; 2025. Oslo, Norway.

Ali S, Wang X, Muqet A, Mendiluze E. **AI for Quantum & Quantum for AI**. In: Kongsberg Agenda; 2025.

Riegler M. **AI security**. In: Tverrdepartemental KI-gruppe, Ministry of Digitalisation and Public Governance; 2025. Oslo, Norway.

Ali S. **AI-enabled Digital Twins for Anomaly Detection in IT-OT Systems**. In: 2nd NESIOT Conference; 2025.

Lysne O. **Alt som tas for gitt. Klarer vi å sikre kritisk infrastruktur?** In: Sikkerhetskonferansen; 2025. Oslo, Norway.

Rognes ME. **Brain membranes and vasculature. A computational mathematics tale of dimensional gaps**. In: Computational and Applied Mathematics Seminar, Chalmers University of Technology; 2025. Gothenburg, Sweden.

Rognes ME. **Brain membranes and vasculature: a computational mathematics tale of dimensional gaps**. In: Institut Mittag-Leffler research program on Interfaces and Unfitted Discretization Methods; 2025. Stockholm, Sweden.

Jørgensen M. **Decision-Making, Funding and Execution of Digitalization Projects in the Norwegian Public Sector**. In: NTNU; 2025. Trondheim, Norway.

Jørgensen M. **Decision-Making, Funding and Execution of Digitalization Projects in the Norwegian Public Sector**. In: Windhoek; 2025. Namibia.

Jørgensen M. **Effektiv oppstart av smidig IT-utvikling. Tidligfasen til smidig IT-utvikling i offentlig sektor. Hvor smidig er den og hvor smidig bør den være?** In: Webinar; 2025.

Jørgensen M. **Evidens-baserte tiltak for å lykkes med å realisere nytte i IT-utvikling**. In: Arendalsuka; 2025.

Jørgensen M. **Finansiering av IT-utvikling. Hvordan komme raskere til leveranse, forbedre styringen av investeringene og stimulere til mer innovasjon i offentlig sektor?** In: Digitaliseringsdirektoratet (DigDir); 2025.

Jørgensen M. **How much is a great software developer worth? Research**

results on software development productivity. Does AI help? How to successfully develop software. In: Kathmandu; 2025. Nepal.

Jørgensen M. **How much is a great software developer worth? Research results on software development productivity and successful software development.** In: Kathmandu; 2025. Nepal.

Jørgensen M. **Hva skal til for å lykkes med IT-utvikling? Og hva vil det si å lykkes?** In: Brønnøysundregistrene; 2025.

Jørgensen M. **Hvem lykkes med systemavvikling, og hvorfor? Noen resultater fra forskningen.** In: HIT-seminar (SimulaMet/EDOS); 2025.

Jørgensen M. **Hvor går det galt med digitalisering i offentlig sektor? (og, hva kan DigDir gjøre med det?)** In: Digitaliseringsdirektoratet (DigDir); 2025.

Jørgensen M. **Judgment and decision-making in software engineering. When are the 'experts' experts? How can we know?** In: Kathmandu; 2025. Nepal.

Spieker H. **Large Language Models for Computer Aided Process Planning (CAPP).** In: inspire AG - EU-MARS Sounding Board Meeting; 2025.

Jørgensen M. **Litt om forskning på smidig oppstart av smidig IT-utvikling, nyttestyring og (bitte litt) om produktorganisering.** In: Brønnøysundregistrene; 2025.

Dokken JS. **Mixed-domain and multi-physics modelling in the FEniCS framework.** In: ICOSAHOM 2025; 2025. Montréal, Canada.

Lysne O. **Nasjonal kontroll med digital infrastruktur.** In: Utsikt-konferansen; 2025. Trondheim, Norway.

Lysne O. **Nasjonal kontroll med kritisk digital kommunikasjonsinfrastruktur - målbilde og virkemidler.** In: Styreinstuttet; 2025. Oslo, Norway.

Lysne O. **Nasjonal kontroll over kritisk digital infrastruktur.** In: Justisdepartementet; 2025. Oslo, Norway.

Lysne O. **Nasjonal kontroll over kritisk digital infrastruktur.** In: Forsvarets IKT-sjefssamling; 2025. Oslo, Norway.

Lysne O. **Nasjonal kontroll over kritisk digital infrastruktur.** In: Teknologirådet, Stortinget; 2025. Norway.

Lysne O. **Nasjonal kontroll over kritisk digital infrastruktur.** In: CTO Forum; 2025. Oslo, Norway.

Lysne O. **Nasjonal kontroll over kritisk digital infrastruktur.** In: Ministry of Digitalisation and Public Governance; 2025. Oslo, Norway.

Lysne O. **Nasjonal kontroll over kritisk digital infrastruktur.** In: Statens Graderte Plattformtjenester (SGP); 2025. Oslo, Norway.

Lysne O. **Nasjonal kontroll over kritisk digital infrastruktur.** In: Corporate Communications and GoFort, Sommerro; 2025. Norway.

Lysne O. **Nasjonal kontroll over kritisk digital kommunikasjons-infrastruktur.** In: Topplederseminaret, Arbeids- og inkluderingsdepartementet; 2025. Oslo, Norway.

Lysne O. **Nasjonal kontroll over kritisk digital kommunikasjons-infrastruktur.** In: Nettverk for IT-direktører, DND; 2025. Oslo, Norway.

Lysne O. **Nasjonal kontroll over kritisk digital kommunikasjonsinfrastruktur.** In: NHOs Digitaliseringsnettverk; 2025. Oslo, Norway.

Ngereja B. **Navigating Uncertainty in Digitalization Projects: The Role of Absorptive Capacity.** In: ProsjektNorge: KA Læring i prosjekter; 2025.

Lysne O. **Ny Verdensorden – nye Sikkerhetsbehov.** In: Telecomkonferansen; 2025. Haugesund, Norge.

Lysne O. **Nye perspektiver på digital sikkerhet i Norge.** In: Attack 2025; 2025. Oslo, Norway.

Jørgensen M. **Nyttestyring av IT-utvikling. Hva er det og hvordan lykkes med det?** In: Hellerudsletta; 2025. Lillestrøm, Norge. Dreiholz T. **OpenPGP Introduction & Key-Signing Session.** In: Oslo; 2025. Norway.

Jørgensen M, Røe K. **Produktorganisering – mye verdi til høy pris?** In: NOKIOS; 2025. Ali S. **Quantum Artificial Intelligence for Classical Software Engineering.** In: IEEE Services, Quantum Software Symposium; 2025.

Ali S. **Quantum Computing Applications in Cancer Registry.** In: Nordic Life Science Event 2025; 2025.

Ali S. **Quantum Extreme Learning Machines: Industrial and Societal Applications.** In: Q2B; 2025. Tokyo, Japan.

Ali S. **Quantum Software Engineering: Building Dependable Software for Quantum Computers.** In: ACM SIGSoft Webinar; 2025.

Ali S. **Scientific Presentation.** In: InnoGuard Winter School; 2025.

Jørgensen M. **Smidig finansiering og oppstart av smidige IT-prosjekter - i en produktorientert verden.** In: DnD-seminar om prosjektstyring; 2025. Oslo, Norway.

Jørgensen M. **Smidig oppstart av smidig IT-utvikling? Hva gjøres i**



praksis? Hva kan gjøres innen rammene av utredningsinstruksen, statens prosjektmodell og prosjektveiviseren? Hva bør gjøres? In: Husbanken; 2025. Jørgensen M. **Smidig oppstart, nyttestyring og produktorganisering i en smidig verden Hva sier forskningen?** In: Politiet; 2025.

Jørgensen M. **Store IT-prosjekter: Hva er problemet? Bør de unngås? Hvordan? Resultater fra forskningen.** In: Hellerudsletta; 2025. Lillestrøm, Norge.

Ali S. **Testing Cyber-Physical Systems with AI Foundation Models.** In: Future of Internetware; 2025.

Ali S. **The Convergence of Quantum Computing and Artificial Intelligence.** In: EU-Korea Digital Partnership Quantum Researcher's Networking Forum; 2025.

Lysne O. **The importance and vulnerability of communication cables.** In: Fiber Conference; 2025. Bergen, Norway.

Ngereja B. **The role of learning in supporting the implementation and adoption of digitalization projects.** In: ProsjektNorge: KA Læring i prosjekter; 2025.

Ali S, Mendiluze E. **Towards Real-World Quantum Computing Applications.** In: The QIT Norway Event, Simula Research Laboratory; 2025.

Spieker H. **Trustworthy Automated Driving through Qualitative Explainable Graphs.** In: Trustworthy Systems Laboratory, University of Bristol; 2025. UK.

Chatzis C. **Uncovering evolving patterns in temporal data with tensor decompositions.** In: TRICAP (Three-way Methods in Chemistry and Psychology) 2025; 2025.

Bryhni H. **Utfordringer ved bruk av kommersiell mobilteknologi for å realisere fremtidens nødnett.** In: Mobil Agenda; 2025. Oslo, Norway.

Hannay JE. **A Benefit/Cost Analysis Tool for Better Benefits Management**. In: Human-Computer Interaction International 2025; 2025. Göteborg, Sweden (online).

Evang JM. **A Lightning History of IPv6 in Norway**. In: NONOG-7 / NIX-2025; 2025. Oslo, Norway.

Wu J. **A Tool for Benchmarking Large Language Models' Robustness in Assessing the Realism of Driving Scenarios**. In: 2nd ACM/IEEE International Conference on AI-powered Software (Alware 2025); 2025.

Lu C. **Assessing the Uncertainty and Robustness of the Laptop Refurbishing Software**. In: 2025 IEEE Conference on Software Testing, Verification and Validation (ICST); 2025.

Ataman EA. **Coupled Matrix/Tensor Factorizations – as a tool to develop knowledge-guided data-driven methods for extracting insights from complex data**. In: TRICAP: Three-way methods In Chemistry And Psychology; 2025.

Chatzis C, Schenker C, Cohen JE, Ataman EA. **dCMF: Learning interpretable evolving patterns from temporal multiway data**. In: Particles, Fluids and Patterns: Analytical and Computational Challenges - Intensive Trimester; 2025.

Lu C. **EpiTESTER: Testing Autonomous Vehicles With Epigenetic Algorithm and Attention Mechanism**. In: 2025 IEEE/ACM 47th International Conference on Software Engineering (ICSE 2025); 2025.

Erdős B. **Extracting host-specific developmental signatures from longitudinal microbiome data**. In: ISMB/ECCB 2025; 2025. Liverpool, UK.

Erdős B. **Extracting insights into early-life gut microbiome development**



from longitudinal data using tensor decompositions. In: Seminar at Oslo Centre for Biostatistics and Epidemiology (OCBE); 2025. Oslo, Norway.

Lu C. . In: 2030 Software Engineering - 2025; 2025.

Dreibholz T. **HiPerConTracer: A Versatile Tool for Obtaining Insights into Today's Communication Networks**. In: Oslo; 2025. Norway.

Isaku E. **LLMs in the Heart of Differential Testing: A Case Study on a Medical Rule Engine**. In: ICST 2025, 18th IEEE International Conference on Software Testing, Verification and Validation; 2025. Napoli, Italy.

Mazouni Q, Gotlieb A, Spieker H, Acher M, Combemale B. **Mutation-Guided Metamorphic Testing of Optimality in AI Planning**. In: 18th IEEE International Conference on Software Testing, Verification and Validation (ICST) 2025; 2025.

Isaku E. **Out of Distribution Detection in Self-adaptive Robots with AI-powered Digital Twins**. In: 40th IEEE/ACM International Conference on Automated Software Engineering, ASE 2025; 2025. Seoul, South Korea.

Lysne O. **Perspectives on National Security**. In: AI4COPSEC General Assembly; 2025. Ancona, Italy.

Mazouni Q, Spieker H, Gotlieb A, Acher M. **Policy Testing with MDPFuzz (Replicability Study) (Abstract)**. In: Software Engineering (SE 2025); 2025.

Wang X. **Quantum Approximate Optimization Algorithm for Test Case Optimization**. In: ICSE 2025; 2025. Ottawa, Canada.

Wang X. **Quantum Artificial Intelligence for Software Engineering: the Road Ahead**. In: 2030 Software Engineering with FSE 2025; 2025.

Ali S, Wang X, Muqeeet A. **Quantum Software Testing**. In: Tutorials and Technical Briefings in ICSE 2025; 2025.

Nylænder K. **Search-based Generation of Waypoints for Triggering Self-Adaptations in Maritime Autonomous Vessels**. In: GECCO '25: Proceedings of the Genetic and Evolutionary Computation Conference; 2025. Málaga, Spain.

Sartaj H. **Search-Based Software Engineering in the Landscape of AI Foundation Models**. In: 2030 Software Engineering, FSE 2025; 2025. Trondheim, Norway.

Sartaj H. **Software Engineering for Self-Adaptive Robotics: A Research Agenda**

In: 2030 Software Engineering, FSE 2025; 2025. Trondheim, Norway.

Wang X. **Test Case Minimization with Quantum Annealers**. In: ICSE 2025; 2025. Ottawa, Canada.

Dokken JS. **The FEniCS Project: What's new and what's next**. In: University of Groningen; 2025. The Netherlands.

Chrysos G, Vergari A, Ataman EA. **Tutorial on Foundations of Tensor/Low-Rank Computations for AI**. In: NeurIPS 2025; 2025.

Ali S. **Uncertainty in Self-Adaptive Robots**. In: AI and Autonomous Systems: Safety, Trustworthiness and Adaptation; 2025.

Wu J. **Uncertainty-Aware Autonomous Driving System Testing with Large Language Models**. In: 2025 IEEE Conference on Software Testing, Verification and Validation (ICST); 2025.

Gross D, Spieker H, Gotlieb A. **Verifying Memoryless Sequential Decision-making of Large Language Models**. In: 7th International Workshop on Artificial Intelligence and fOrmal VERification, Logic, Automata, and sYNthesis (OVERLAY @ ECAI 2025); 2025.

POSTERS

Pettersen MB, Haug N, Bergli J, Surowiec TM, Lepperød M. **Exponential Maps as an Interpretable Framework for Generating Neural Spatial Representations from First-Principles**. In: FENS Regional Meeting. 2025.

Hellan O. **Mesh Motion in Fluid-Structure Interaction with Deep Operator Networks**. In: 2025 Geilo Winter School on Inverse Problems Poster Session. 2025.

Olsen E, Fjeldstad MP, Thon S, Haug N, Lepperød M, Sugar J, et al. **Oscillatory Rhythms in the Hippocampus and Entorhinal Cortex During Social Recognition**. In: FENS Regional Meeting. 2025.

PUBLIC OUTREACH

Jørgensen M. **Belønning av overestimering og sløsing i IT-utvikling**. Abels Tårn. 2025.

Lysne O, Markussen BT. **Digitalt totalforsvar er nødvendig i en urolig verden**. Abels Tårn. 2025.

Jørgensen M. **Hvor mye lønner det seg med bedre rekrutteringsprosesser?** Abels Tårn. 2025.

Jørgensen M. **IT-systemer som ikke vil dø.** Computerworld. 2025.

Riegler M, Lysne O, Røstad L. **KI blir krigføring. I Trumps æra gir det Norge et sikkerhetsproblem.** Computerworld. 2025.

Lysne O. **KI og cybersikkerhet: er toget gått?** Paneldebatt. Computerworld. 2025.

Hannay JE, Riegler M. **KI-feberen: Når middelet blir målet.** Computerworld. 2025.

Jørgensen M. **Konrad Zuse - den ukjente oppfinneren av datamaskinen?** Computerworld. 2025.

Strømmen K. **Lot du deg overraske av DeepSeek? – Det kommer mer fra Kina.** NRK. 2025.

Lysne O, Riegler M, Cicic T, Bryhni H. **Microsoft-blokaden bør vekke Norge.** NRK. 2025.

Jørgensen M. **Ni av ti får ikke gevinster av digitalisering, eller? Når ingen sjekker kilden, kan en fjær fort bli til fem høns.** NRK. 2025.

Cicic T. **Starlink er for godt til å boikottes.** Digi.no. 2025.

Lysne O. **Statsrådene må stokke bena for å sikre sårbar infrastruktur.** Digi.no. 2025.

Lysne O, Romarheim A. **Storpolitikk og datakontroll, Paneldebatt.** Digi.no. 2025.

Lysne O, Markussen BT. **Styring er ikke nok – sivil sektor må mobiliseres.** Digi.no. 2025.

Riegler M, Lysne O. **Vi så ikke maktkonsentrasjonen i 1999. Ser vi den nå?** Digi.no. 2025.

MISCELLANEOUS

Evang JM. **Dataset: Measuring Mobile Network Coverage during Extended Road Trips in the Nordics.** 2025.

Lysne O. **Er vi for naive? Kan IT-Norge stå på egne ben, eller er vi avhengig av utlandet.** 2025.

Riegler M. **Fastlåste verdier for alltid?** 2025.

Lysne O, Riegler M, Jensen J, Berrefjord VR, Espen PW. **Hvem kontrollerer teknologien som kontrollerer våre liv - Paneldebatt.** [Panel Debate]. 2025.

Lysne O. **Hvordan sikre trygg digitalisering av Norge? Paneldebatt.** [Panel Debate]. 2025.

Ali S. **ICST 2025 Panel: Research, Industry, and Emerging Frontiers.** [Conference Panel]. 2025.

Ali S. **Quantum Approaches to Designing AI Software: Panel.** [Panel]. 2025.

Ali S. **Quantum Computing and Software Engineering.** 2025.

Ali S, Arcaini P. **Quantum Software Engineering: Future Trends in Software Engineering Body of Knowledge.** 2025.

Mølmen Høst A, Lison P, Moonen L. **Replication package for "A Systematic Approach to Predict the Impact of Cybersecurity Vulnerabilities Using LLMs."** [Replication Package]. 2025.

Vallecillos-Ruiz F, Grishina A, Hort M, Moonen L. **Replication package for "Assessing the Latent Automated Program Repair Capabilities of Large Language Models using Round-Trip Translation."** [Replication Package]. 2025.

Hort M, Moonen L. **Replication Package for "Codehacks: A Dataset of Adversarial Tests for Competitive Programming Problems Obtained From Codeforces."** [Replication Package]. 2025.

Hort M, Vallecillos-Ruiz F, Moonen L. **Replication package for "Large Language Models: A Survey of Surveys."** [Replication Package]. 2025.

Fatima S, Ellefsen KO, Moonen L. **Replication Package for "Self Healing of a Mixed Autonomy Traffic System Using Reinforcement Learning and Attention."** [Replication Package]. 2025.

Vallecillos-Ruiz F, Hort M, Moonen L. **Replication Package for "The Art of Repair: Optimizing Iterative Program Repair With Instruction-Tuned Models."** [Replication Package]. 2025.

Machacek R, Grishina A, Hort M, Moonen L. **Replication Package for "The Impact of Fine-tuning Large Language Models on Automated Program Repair."** [Replication Package]. 2025.

Ali S, Arcaini P, Miranskyy A, Zhao J. **Shonan Seminar on Quantum Software Engineering.** [Seminar]. 2025.

Lysne O. **Trygg i skyen, eller avhengig av amerikansk teknologi?** 2025.

INCOME STATEMENT

2025

SRL

SIMULA GROUP

2024	2025		Noter	2025	2024
OPERATING REVENUES					
172,799,175	211,179,366	Operating revenues	2	299,848,010	285,039,271
172,799,175	211,179,366	TOTAL OPERATING REVENUES		299,848,010	285,039,271
OPERATING EXPENSES					
28,325,991	33,372,754	Direct project costs		30,175,615	24,658,096
112,160,523	1,34,370,741	Salary and social costs	3,4	202,435,077	208,243,127
2,020,486	2,034,718	Deprication	5	2,404,371	2,794,357
27,333,714	27,333,714	Other operating expenses	6	60,590,783	55,639,848
169,840,714	204,678,250	TOTAL OPERATING EXPENSES		295,605,846	291,335,428
2,958,462	6,501,116	OPERATING PROFIT		4,242,164	-6,296,157
FINANCIAL ITEMS					
2,781,332	3,260,123	Other interest income		4,372,250	3,055,060
3,320,685	6,318,864	Other financial income		15,929,008	11,478,311
0	0	Write-down of shares		4,359,946	3,600,000
1,757	6,341	Other interest expenses		10,957	4,491
3,224,313	651,046	Other financial expenses		1,124,790	4,401,106
2,875,948	8,921,599	NET FINANCIAL ITEMS		14,805,565	6,527,774
5,834,410	15,422,714	PROFIT BEFORE TAX		19,047,729	231,616
51,780	333,371	Tax	7	-72,680	99,514
5,782,630	15,089,343	NET PROFIT		19,120,409	132,102
0	0	Minority interest		2,019,624	-2,534,493
5,782,630	15,089,343	Profit after minority interest		17,100,785	2,666,595
ALLOCATION OF THE YEAR'S NET PROFIT					
5,782,630	15,089,343	Transferred to other equity			
5,782,630	15,089,343	TOTAL ALLOCATED			

BALANCE SHEET

ASSETS 2025

SRL

SIMULA GROUP

2024	2025		Noter	2025	2024
FIXED ASSETS					
Intangible assets					
1,081,702	637,536	Website	5	637,536	1,081,702
1,081,702	637,536	Total intangible assets		637,536	1,081,702
Tangible fixed assets					
7,222,602	7,196,659	Furniture, fixtures, equipment	5	7,534,146	7,595,888
7,222,602	7,196,659	Total tangible fixed assets		7,534,146	7,595,888
Financial Fixed Assets					
34,841,760	31,639,570	Investments in subsidiaries	8	0	1,316,075
0	0	Investments in shares	9	41,561,766	47,492,101
5,775	207	Other		19,184	5,796
34,847,535	31,639,570	Total financial fixed assets		41,580,950	48,813,973
43,151,839	39,473,972	TOTAL FIXED ASSETS		49,752,633	57,491,563
CURRENT ASSETS					
Receivables					
7,601,222	7,860,572	Account receivables		11,337,128	17,555,516
26,749,523	35,863,512	Other receivables		40,657,018	34,180,751
34,350,745	43,724,084	TOTAL RECEIVABLES		51,994,146	51,736,267
Investments					
19,088,998	20,183,334	Market-based funds	10	45,338,271	46,016,474
0	0	Market-based bonds	10	4,802,278	61,714
19,088,998	20,183,334	Total investments		50,140,549	46,078,188
71,047,198	68,500,252	Bank deposits	11	93,508,961	89,072,606
124,486,941	132,407,670	TOTAL CURRENT ASSETS		195,643,656	186,887,060
167,638,780	171,881,642	TOTAL ASSETS		245,396,289	244,378,623

BALANCE SHEET

EQUITY AND LIABILITIES 2025

SRL

SIMULA GROUP

2024	2025		Noter	2025	2024
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					
77,398,574	92,487,918	Other equity	13	122,473,130	105,372,344
0	0	Minority interests	13	13,942,872	11,923,248
77,398,574	92,487,918	Total retained equity		136,416,002	117,295,592
78,598,574	93,687,918	TOTAL EQUITY		137,616,002	118,495,592
LIABILITIES					
Other long term debt					
0	0	Other long term debt	7	0	72,680
0	0	TOTAL LONG TERM DEBT		0	72,680
Other long term debt					
0	0	Other long term debt	15	9,151,511	9,255,064
0	0	TOTAL LONG TERM DEBT		9,151,511	9,255,064
CURRENT LIABILITIES					
4,114,782	2,864,362	Accounts payable		5,444,347	6,455,648
0	0	Tax payable	7	0	26,754
7,407,918	9,567,885	Public duties payable		14,426,808	15,274,930
77,517,505	65,761,477	Other current liabilities	16	78,757,622	94,797,954
89,040,205	78,193,724	Total current liabilities		98,628,776	116,555,287
89,040,205	78,193,724	SUM TOTAL LIABILITIES		107,780,287	125,883,030
167,638,780	171,881,642	TOTAL EQUITY AND LIABILITIES		245,396,289	244,378,623

NOTES TO THE FINANCIAL STATEMENTS

NOTE 1 Accounting principles

The financial statement has been prepared in accordance with the regulations of the Norwegian Accounting Act 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. Depreciation is generally performed in a straight line over the expected useful life of the asset.

As a general rule, the depreciation is distributed linearly over the assumed economic life.

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), and Simula UiB. The consolidated financial statements are prepared as if The Group were one economic entity. Transactions and balances between group companies are eliminated.

Cash flow statement

The cash flow statement is prepared using the indirect method.

NOTE 2 Operating revenue

	SRL		SRL Konsern	
	2025	2024	2025	2024
Research funding	68,625,576	65,717,000	78,503,770	75,380,000
Research funding from the Research Council of Norway, EU, etc.	108,586,026	99,342,223	167,341,745	161,251,695
Other income	33,967,764	7,739,952	54,002,495	48,407,576
Total	211,179,366	172,799,175	299,848,010	285,039,271

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

Salary and social costs	SRL		SRL Group	
	2025	2024	2025	2024
Salary	101,155,961	84,109,606	155,549,082	160,398,113
Social security	15,745,918	13,203,893	24,394,225	25,370,883
Pension costs	10,614,977	8,430,270	16,959,061	16,417,164
Other benefits	3,864,316	3,798,871	5,532,709	6,056,967
Personnel costs re-invoiced group	2,989,569	2,617,883	-	-
Total	134,370,741	112,160,523	202,435,077	208,243,127
Number of full-time equivalents	109	101	171	184

Remuneration paid to senior company officers	Managing director	Board of Directors
Salary	2,319,463	1,231,814
Pension expenses	221,291	-
Other remuneration	15,155	-
Total remuneration	2,555,909	1,231,814

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. The payment schedule for board remuneration was amended in 2025, resulting in the fees for both 2024 and 2025 being disbursed during 2025.

Auditor

The auditor's fees break down as follows:

Parent Company	2025	2024
Statutory auditing services	162,000	170,000
Other services (project revision)	29,700	22,000
Other services	67,500	100,700
Sum of auditor's fees	259,200	292,700

Value-added tax (VAT) is not included in the auditor's fee.

Datterselskap	2025	2024
Lovpålagt revisjon	222 700	226 700
Attestasjonsoppdrag (prosjektrevisjon)	-	-
Andre tjenester	81 700	88 800
Sum honorar til revisor	304 400	315 500

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 equipment	Furnishings, equipment, etc.	Total fixed assets
Acquisition costs as of 01.01	1,924,264	5,888,343	7,276,957	15,089,564
Additions	-	1,723,769	29,046	1,752,815
Disposals	-	-	-	-
Acquisition costs as of 31.12	1,924,264	7,612,112	7,306,003	16,842,379
Cumulative depreciation as of 31.12	-1,286,728	-5,292,708	-2,428,748	-9,008,184
Disposals	-	-	-	-
Book value as of 31.12	637,536	2,319,404	4,877,255	7,834,195
Year's depreciation	444,166	1,164,583	614,175	2,222,924

SRL Group

Fixed assets	Website	Computer equipment	Furnishings, equipment, etc.	Total fixed assets
Acquisition costs as of 01.01	1,924,264	6,005,165	10,478,585	18,408,014
Additions	-	1,780,727	117,736	1,898,463
Disposals	-	-	-	-
Acquisition costs as of 31.12	1,924,264	7,785,892	10,596,321	20,306,477
Cumulative depreciation as of 31.12	-1,286,728	-5,251,648	5,596,419	-12,134,795
Disposals	-	-	-	-
Book value as of 31.12	637,536	2,534,244	4,999,902	8,171,682
Year's depreciation	444,166	1,251,723	708,482	2,404,371

The economic life of operating assets is calculated as:

*Computer equipment	2-5 years
*Furnishings, fixtures and equipment	3-15 years

NOTE 6 Leieavtaler og leasing

Selskapet har inngått 2 leasingavtaler vedrørende kopi- og kaffemaskiner. Årets kostnad utgjør kr. 258 440,-. Selskapet flyttet til Kristian Augusts gate 23 i Oslo sentrum i 2021. Leieavtalen er på 15 år.

NOTE 7 Tax

Simula Research Laboratory AS is liable to tax for the part of the business that concerns commissioned research. The subsidiary Simula Innovation AS is 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.

Taxation for the year consists of:	SRL		SRL Group	
	2025	2024	2025	2024
Tax payable	406,051	51,780	26,834	26,834
Change in deferred tax	-72,680	-	-72,680	72,680
Total tax expense	333,371	51,780	333,371	99,514

Tax payable for the year is calculated as follows:

	2025	2024	2025	2024
Profit before tax*	5,834,410	5,834,410	23,047,729	-1,092,631
Permanent differences	-5,600,755	-5,600,755	-21,704,441	-5,881,837
Change in temporary differences	1,708	1,708	223,851	-749,320
Deficit to carry forward	-	-	-275,789	-
Deficits and differences that are not included in the basis	-	-	554,338	7,845,761
Basis for taxable contract research	1,845,688	235,363	1,845,688	121,973
Taxable income	1,845,688	235,363	1,845,688	121,973
Temporary differences:	2025	2024	2025	2024
Other differences	-1,857,808	-1,800,000	-1,857,808	-1,369,632
Fixed assets	-424,428	-559,018	-950,445	-1,214,770
Loss carryforward	-	-	-20,097,606	-19,819,058
Write-down of shares	-	-	-	-
Total basis for deferred tax asset	-2,282,236	-2,359,018	-22,905,859	-22,403,460
Deferred tax liability/asset	-502,092	-518,608	-5,039,289	-4,928,761
Unrecognised deferred tax liability	-502,092	-518,608	-5,039,289	-4,928,761
Recognized tax liability	-	-	-	72,680
Tax payable in the balance sheet:	2025	2024	2025	2024
Tax payable on the profit of the year	406,051	51,780	406,051	26,834
Tax payable on group contributions paid	-406,051	-51,780	-406,051	-
Total tax payable in the balance sheet	-	-	-	26,834

In 2025, the company has had income from commissioned research corresponding to 16.1% of turnover.

NOTE 8 Subsidiaries, associates, etc.

	Acquired	Office	Country	Share
Simula Innovation AS	4.5.2004	Oslo	Norway	100%
Simula UIB AS	17.12.2015	Bergen	Norway	51%
Simula Metropolitan CDE AS	21.11.2017	Oslo	Norway	51%

	Result	Equity 31.12
Simula Innovation AS	4,743,247	48,352,729
Simula UIB AS	2,025,193	11,151,018
Simula Metropolitan CDE AS	856,575	16,063,908

Effective from 1.1.2025, Simula Consulting AS was merged into Simula Research Laboratory AS. Simula Research Laboratory Inc. was liquidated effective 31.12.2025.

NOTE 9 Securities and shares in other enterprises, etc.

Investments in shares	Quantity	Face value per share	Shareholding	Cost price
Augere Medical AS	37,930	1	9.656%	4,858,930
Celerway Communications AS	14,664	1	5.700%	3,000,786
Coupler Holding AS	882	1	2.940%	1,000,000
Edgefolio UK Limited	5,771	GBP 1	5.188%	1,451,243
EYR Medical AS	28,244	0.3	3.352%	3,400,180
Fabriscale Technologies AS	19,983	1	26.597%	4,010,410
Folkeinvest AS	34,179	1.4	.300%	541,841
Forzasys AS	33,000	0.34	30.000%	1,528,065
Future Ready AS	2,277	1	3.780%	600,045
Futureworks AS	5,875	1	0.250%	1,700,410
Imerso AS	891	10	8.171%	1,615,925
Insilicomed Inc, USA	131,945	USD 1.80		1,220,755
Investory Onlineplattform GmbH	3,337	EUR 1	4.060%	1,104,440
LeadX AS	6,690,476	0.001	6.910%	2,250,000
Leid AS	8,737	1	6.460%	1,500,000
Lyng AI AS	13,000	1	2.780%	5,567
N-ABEL AS	15,675	1	32.759%	2,090,000
Organos Inc.	510,000		8.200%	22,048
Qbee AS	105,168	10	13.758%	3,770,618
Retailhub AS	2,250	1.1	5.923%	1,499,985
Skypass AS	197,563	0.03	10.534%	1,854,514
Slipper AS	528,408	0.01	5.070%	904,959
Spoortz Holding AS	153,922	0.1	1.021%	1,059,288
Storeshop AS	67,286	1.75	9.064%	1,849,760
Testify AS	900	1	30.000%	1,427,117
Tipio AS	90,498	0.1	6.208%	1,000,000
Tundra Drone AS	1,745	1	1.093%	249,946
Unloc AS	331,700	0.01	2.641%	2,997,349
Vendu AS	14,010,330	0.01	6.113%	3,320,000
Völur NOR Holdco AS	320,000	0.03	3.352%	1,000,000
Write-down of shares				20,424,012
Total investment in associations				32,410,168

Pre-seed investments on behalf of Innovation Norway AS	Quantity	Face value per share	Shareholding	Cost price
Arribatec Group ASA	277,800	1	0.040%	500,000
EYR Medical AS	6,521	0.3	0.870%	1,499,830
Total investments in associates				41,561,766

Pre-seed investments on behalf of Innovation Norway AS	Quantity	Face value per share	Shareholding	Cost price
Fabriscale Technologies AS	3,223	1	4.290%	1,999,793
Future Ready AS	638	1	1.059%	250,000
Healthy to 100 AS (H100 Group)	1,148,991	0.001	1.193%	1,148,991
LeadX AS	1,333,333	0.001	3.127%	750,000
Leid AS	1,609	1	1.355%	750,357
Slipper AS	91,245	0.01	2.020%	252,930
Spoortz Holding AS	76,923	0.1	0.510%	999,999
Tipio	10,566	0.1	0.725%	249,992
Tundra Drone	1,745	1	1.093%	249,946
Unloc AS	63,000	0.01	0.574%	499,760
Total pre-seed investments				9,151,598
Total investments in associates				41,561,766

NOTE 10 Financial instruments

The company has invested surplus liquidity in equity and bond funds. The placements are recorded at fair value as of 31.12.

SRL

Type of placement	Accounted value	Share	Cost
Interest fund	14,332,744	71%	12,541,034
Equity fund	5,850,590	29%	3,188,976
Total	20,183,334	100%	15,730,010

The year's positive change in value of NOK 251,809 has been recognised as Other financial income in the income statement. During the year, a bond fund was realised with a gain of NOK 847,449. The proceeds have been reinvested in their entirety in a new bond fund.

SRL Group

Type of placement	Accounted value	Share	Cost
Interest fund	34,978,126	77%	31,071,533
Equity fund	10,360,145	23%	6,251,565
Total	45,338,271	100%	37,323,098

The Group's net change in value for the year, amounting to NOK 257,518, has been recognised in the income statement as NOK 515,515 under Other financial income and NOK 257,997 under Other financial expenses. The Group has also realised units in investment funds with a gain for the Group of NOK 1,848,944; this amount is recognised as Other financial income.

NOTE 11 Bank deposits

	SRL	SRL Group
Restricted tax withholdings total:	5,171,497	7,942,112

NOTE 12 Share capital and shareholders

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	Shares
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	77,398,574	78,598,574
Profit/loss for the year		15,089,343	15,089,343
Equity as of 31.12	1,200,000	92,487,918	93,687,918

SRL has provided a gross group contribution to SI of NOK 1,845,688.

SRL Group	Share capital	Other equity	Minority interests	Sum
Equity as of 1.1	1,200,000	105,372,344	11,923,248	118,495,592
Profit/loss for the year	-	17,100,785	2,019,624	19,120,409
Equity as of 31.12	1,200,000	122,473,130	13,942,872	137,616,002

NOTE 14 Balances and transactions between group companies and associates

	2025	2024
Receivable from SI	283,125	9,216
Receivable from SimulaMet	73,827	651,585
Receivable from SC	-	1,569,471
Receivable from Simula UiB	-	38,605
Payable to SI	3,945	86,058
Payable to Simula UIB	-	62,500
Payable to SC	-	22,500
Gjeld til SimulaMet	123,533	362,175
Sale of services, etc to SI	1,304,011	418,736
Sale of services, etc to Simula UIB	2,697,060	2,343,052
Sale of services, etc to SimulaMet	7,158,928	3,215,148
Sale of services, etc to SC	-	9,087,551
Purchases of services, etc from SI	182,835	338,085
Purchases of services, etc from SimulaMet	15,085,146	13,238,667
Purchases of services, etc from SC	-	121,449

NOTE 15 Receivables and liabilities

	SRL		SRL Group	
Long-term debt due in more than five years	2025	2024	2025	2024
Pre-seed funds from Innovasjon Norge AS	-	-	9,151,511	9,255,064
Total	-	-	9,151,511	9,255,064

NOTE 16 Funding and grant advances

SRL	2025	2024
Advance, not earned by 31.12	79,088,779	66,651,216

SRL Group	2025	2024
Advance, not earned by 31.12	85,837,318	70,332,984

The advances are posted on the accounting line Other current liabilities in the balance sheet. Pre-funding received and not disbursed in connection with EU projects where SRL is the coordinator is recorded net in the balance sheet.

NOTE 17 Financial market risk and currency risk

The Group is to some extent exposed to financial market risk through investments in start-up companies, and surplus liquidity in some subsidiaries is invested in equity and fixed income funds.

For investments in start-up companies, the book value of both the portfolio and the individual investments are assessed.

CASH FLOW STATEMENT

2025

SRL		SIMULA GROUP		
2024	2025		2025	2024
CASH FLOW FROM OPERATING ACTIVITIES				
5,782,630	15,089,343	Net profit for the year	19,120,409	132,102
2,034,718	2,222,924	Depreciation and write-downs	2,404,371	2,808,589
11,744,676	-9,366,925	Change in receivables	-271,267	17,857,830
25,603,837	-10,847,327	Change in current liabilities	-17,926,511	22,762,376
45,165,861	-2,901,985	Net cash flow from operating activities	3,327,002	43,560,897
CASH FLOW FROM INVESTING ACTIVITIES				
2,490,948	3,202,190	Changes in connection with arrival/disposal		
-504,290	-1,752,815	Net investments in operating assets	-1,898,463	389,315
-	-	Net investments in/sale of shares	7,246,410	1,784,241
1,986,658	1,449,375	Net cash flow from investing activities	5,347,947	2,173,556
CASH FLOW FROM FINANCING ACTIVITIES				
-	-	Repayment of loans	-103,553	-1,751,959
-	-	Change in deferred tax/tax benefit	-72,680	72,680
-	-	Net cash flow from financing activities	-176,233	-1,679,279
47,152,519	-1,452,610	Cash holdings 1.1	8,498,716	44,055,174
42,983,677	90,136,196	Cash holdings 31.12	135,150,794	91,095,620
90,136,196	88,683,586	Kontanter inkl finansielle omløpsmidler 31.12	143,649,510	135,150,794
THIS CONSISTS OF				
45,212,369	-2,546,946	Change bank deposits	4,436,355	44,200,990
1,940,150	1,094,336	Changing financial current assets	4,062,361	-145,816
47,152,519	-1,452,610	Sum total	8,498,716	44,055,174

simula



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 2025, 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 2025, 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 rettviseende bilde av selskapets finansielle stilling per 31. desember 2025 og av dets resultater for regnskapsåret avsluttet per denne datoen i samsvar med regnskapslovens regler og god regnskapsskikk i Norge, og
- gir konsernregnskapet et rettviseende bilde av konsernets finansielle stilling per 31. desember 2025 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.

Ledelsens ansvar for årsregnskapet

Ledelsen er ansvarlig for å utarbeide årsregnskapet og for at det gir et rettviseende 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, 4. mars 2026
Insignis AS



Kristoffer Langva
statsautorisert revisor

SIMULA

BOARD AND MANAGEMENT

BOARD OF DIRECTORS

- Astrid Rusås Kristoffersen, Chair of the Board
- Ingolf Søreide, Board member
- Lasse Olsen, Board member
- Liv Dingsør, Board member
- Mats Anders Lundqvist, Board member
- Paul Chaffey, Board member
- Pinar Heggernes, Board member
- Are Magnus Bruaset, (employee representative)
- Lena Korsnes, (employee representative)
- Kristin Ytterstad Pettersen, deputy representative

MANAGEMENT GROUP

- Lillian Røstad, Managing director
- Monica Eriksen, CFO
- Maria Benterud, director of administrasjon (SRL)
- Rachel Thomas, director of Simula Academy
- Harald Rønn, director of funding
- Are Magnus Bruaset, director of Software og AI
- Joakim Sundnes, director of Scientific Computing
- Ottar Hovind, director of Simula Innovation
- Klas Pettersen, director of SimulaMet
- Marianne Sundet, deputy director of SimulaMet
- Carlos Cid, director of Simula UiB

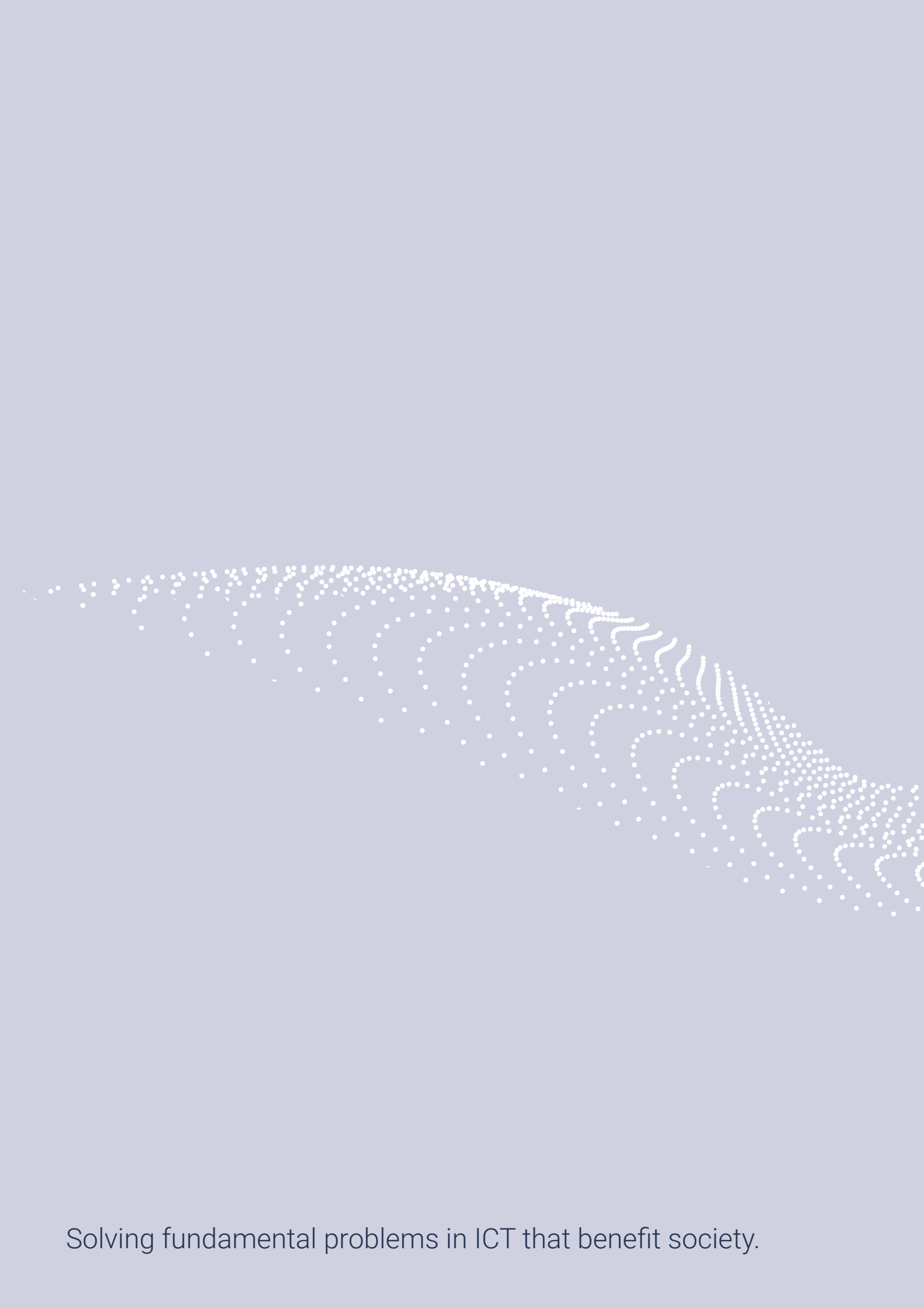




SIMULA

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