Shaping a sustainable society through digital transformation

digital futures







Together we shape the future

Digital Futures is a cross-disciplinary research centre exploring and developing digital technologies of great societal importance. It was jointly established in 2020 by KTH Royal Institute of Technology, Stockholm University and RISE Research Institutes of Sweden, based on the Swedish Government's Strategic Research Area funding line.

The vision of Digital Futures is to shape an economically, environmental and socially sustainable society through digital transformation. Our mission is to create an international breeding ground to excel in research, empower people by fostering innovation, education, leadership and entrepreneurial spirit and build a strong community.

The overall objective of Digital Futures is to become one of the top five university research centres worldwide in the area of technologies for digital transformation, with tight interactions between academia, industry and society.



A collaborative meeting space

The heart of Digital Futures is its physical meeting space, where PhD students, faculty, postdocs, visiting scholars, industry and society can meet. State-of-the-art digital equipment enables a mixed digital and physical iterative environment where researchers can participate in online meetings, seminars, and other events.



Director's page

Since Digital Futures was established by KTH, Stockholm University and RISE in 2020, the number of activities and people engaged has grown considerably. Digital Futures is now Sweden's most significant investment in research in digital transformation, addressing major societal challenges with its over 80 projects.

We have nine large research collaborative projects involving multi-disciplinary research teams, on among other things, digital assistants in senior care, handling sensitive personal data, intelligent solutions for water distribution and programmable micro-scale robotics material.

Demonstration projects aim at highlighting the societal potential of digital technologies, addressing DNA diagnostics, drone capabilities, batteryless human-powered Interaction, air quality and health risk forecasts, and the use of digital twins to reduce carbon emissions through a more innovative traffic infrastructure. A project is underway in Sri Lanka to use drone technology in the fight against Dengue fever and another in Uganda where digitization is used to reach more patients who suffer from mental illness and improve care.

Pairs of young faculty members from different disciplines combine their perspectives to tackle a research issue from new scientific angles to create the greatest possible societal benefit. From developing biodegradable technology using enzymes to reduce waste from packaging, over creating models for cyber insurance, to identifying risk factors in young people to develop anxiety and worry about improving diagnosis and treatment, Digital Futures supports multidisciplinary research at its best.

International postdocs come to Stockholm to conduct research. Topics currently under investigation cover everything from how robotics can treat children with neuropsychiatric diagnoses and gender-neutral cyber security to monitoring fires in real-time and adapting infrastructures in smart cities to protect public health.

A scholar-in-residence program creates a dynamic exchange with top scientists from other countries.

Community involvement is also expressed through activities with additional scope, such as seniors' relationship to digitalization to better understand opportunities and challenges.

We believe that close collaboration between academia, industry and public sector is necessary to successfully address complex societal challenges. Our Industrial and Societal Partnership Programme creates an eco-system through which partners identify cutting-edge challenges, strategies and approaches regarding digital transformation in their respective domains, as well as in their joint context.

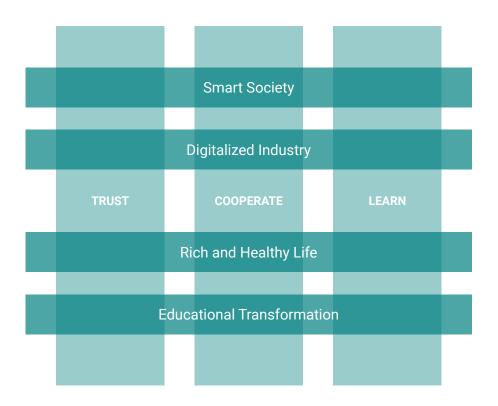
> Karl H Johansson Director Digital Futures



Funding

Digital Futures receives annual governmental funding and awards grants to strategic research projects to support a specific action or project that furthers the vision of Digital Futures.

Interdisciplinary projects are being conducted on societal challenges in the Smart society, Digitalized industry, Rich and Healthy life and Educational transformation, based on the research areas Trust, Cooperate and Learn. Announcements of funding opportunities are carried out for several different types of projects aimed at various target groups.



Many types of research projects



Partnership & Collaborations

The Industrial and Societal Partnership Program (ISPP) aims to identify digital transformation challenges and strategies for industry, the public sector, and academia and form collaborations to address these challenges. In forming such an eco-system, the ISPP also intends to promote the Stockholm area as a leading place in the world with respect to digital transformation. Through different ISPP projects Digital Futures furthermore contributes to increased success for triple-helix project consortia at national and international funding agencies. Digital Futures is a platform for finding common denominators, identifying ways to complement each

other, linking research areas and creating international competitiveness.

Since the beginning of 2021, KTH is a member of the American consortium C3.ai DTI through Digital Futures, as the first international partner, in the company of, UC Berkeley, Carnegie-Mellon, MIT, Stanford, University of Chicago and others. The institute engages the world's leading researchers to conduct research in digital transformation at the intersection of artificial intelligence, machine learning, cloud computing, the internet of things, big data analytics, organizational behaviour, public policy and ethics.



From left to right: Magnus Frodigh, VP and Head of Research, Ericsson, Alexandra Göransson, Deputy CEO of Stockholm, Johan Ragnevad, Senior Manager Technology Strategy at Connected Systems, Scania R&D, Clara Hellner, Director of Research and Innovation, Region Stockholm and Lars Jonson, VP and Business Development Director, Skanska.

"City of Stockholm, together with colleagues from Region Stockholm, are dependent on others in business and academia to help solve our emerging challenges. By collaborating through Digital Futures, the City of Stockholm is an active partner in what is an essential arena for innovation and digital transformation."

> Alexandra Göransson Deputy CEO of Stockholm Stad

"The networks we develop make digitalization possible. To understand the specific requirements of industries and society that will use the network platform for innovative digitalization solutions, we want to work together with ecosystem partners and leading academia. Sweden has a long tradition of successful collaboration between industry and academia, something we want to build on."

Magnus Frodigh Vice President and Head of Ericsson Research

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"To be a partner of Digital Future gives us at Skanska the possibility to exchange ideas, share new perspectives and test innovative solutions in close collaboration with the academia, the public sector and other business actors. What we build will bring value to society long after our lifetime and therefore it's necessary for us, together with others, to develop innovation for sustainability."

Lars Jonson Business Development Director, Skanska





"Through Digital Futures we collaborate with digital transformation leaders and learn from each other in applied research and development projects of mutual benefit to multiple partners. The exchange of ideas and co-operation in research with external partners and academia are also essential for us to be an attractive employer of talent in the Stockholm area."

Johan Ragnevad Senior Manager Technology Strategy of Connected Systems at Scania

"Digital transformation is of the highest importance to Scania when driving the shift towards sustainable transport solutions. We partner with Digital Futures to ensure that our industrial innovations harness the latest results in multiple related research fields."

> Peter Vincent Head of Connected Systems at Scania

Outreach – conferences, seminars, lectures, talks...

Digital Futures supports multiple workshops, conferences, and related events every year and offers support that ranges from the use of the hub to event organization, marketing, advertising, and co-financing.

The annual Digitalize in Stockholm conference attracts a global audience with a rich program of international speakers, partners and researchers participating in panel discussions and presentations.

Future Digileaders is an online event where young researchers from different disciplines and parts of the world participate in career development activities.

In addition, seminars, lectures and workshops are organized every week to bring together researchers, companies and authorities who share knowledge and ideas and inspire new research and innovation.

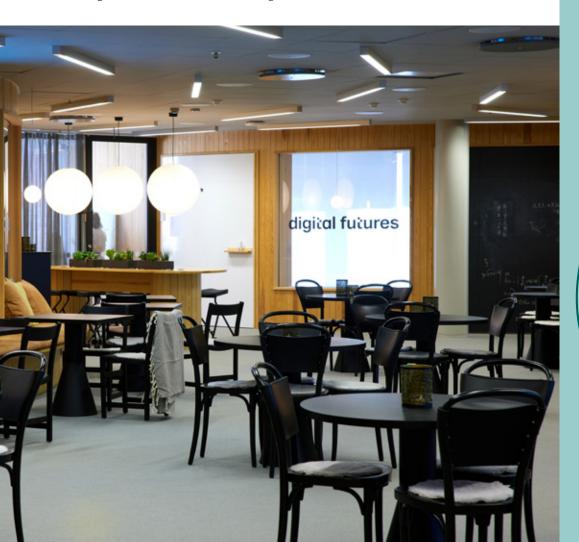




Governance

The decision-making body of Digital Futures is a steering group consisting of KTH, Stockholm University, and RISE representatives. The ongoing work is conducted by an Executive Committee and an Operations Team.

A Strategic Research Committee develops the strategic focus on research whose members lead seven working groups, each representing a societal challenge or a research area within Digital Futures.





Digital Futures is a cross-disciplinary research center that explores and develops digital technologies. We bring solutions to great societal challenges, in Sweden and globally. We generate knowledge, innovations and future leaders of high industrial relevance and strategic importance.

Digital Futures is jointly established by KTH Royal Institute of Technology, Stockholm University and RISE Research Institutes of Sweden.

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