

# NORDIC FIVE TECH

CHALMERS



NTNU

## Nordic Five Tech Strategy 2021-2025

### Why we collaborate

*Nordic Five Tech is a strategic alliance of the five leading technical universities in Denmark, Finland, Norway and Sweden. The alliance was established in November 2006 with the goal of utilizing shared and complementary strengths and creating synergies within education, research and innovation.*

### Nordic values

*The Nordic perspective, our common Nordic values, constitute the foundation of Nordic Five Tech and why we collaborate. The Nordic values feature openness, trust in each other, conviction of peoples' equal value, focus on creativity and innovation, respect for nature and the environment.*

### Complementary and parallel strengths

*By jointly addressing issues in areas where we all excel, N5T can challenge the boundaries of what is possible. This includes our prolific standing in terms of innovation, research excellence and cutting edge educational programmes and environments. By sharing best practices, we entrench and propel our position as an influential alliance of first tier Universities.*

### Globalization within reach

*Through collaboration between Universities in the Nordics that are all in close geographical proximity, the carbon footprint for collaboration is greatly reduced and our efforts greatly augmented. More can be achieved with less as the threshold for collaboration is relatively low.*

### Influence within the Nordic arena

*The N5T Universities already enjoy the status of being prominent partners vis a vis our respective governments and not least the Nordic Council of Ministers. Though concerted efforts have been made already, influence is an area in which our efforts can yet be increased by assuming common positions in issues that are important for all, or some, of the alliance Universities.*

### Sustainability is the Permeating Theme of N5T Collaboration

*N5T Universities recognize that sustainability needs to be the basis for every future undertaking. Indeed, potential to work sustainably has only increased as a consequence of the Covid-19 pandemic. N5T research, educational and innovation activities play a central role in contributing to the green transition and solutions for the sustainable societies of the future. As such, sustainability is the underpinning and permeating theme of each of the below focus areas.*

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## Focus areas in the coming four years

### **I Education - We offer unique and high-quality university education by**

#### *1. increasing the magnitude of Student Mobility*

The alliance aims to attain significantly increased and balanced student mobility between our five Universities by realizing the extended campus concept. This includes both physical and virtual mobility but will focus on the former. Endeavors in developing physical mobility will focus on incentivizing students to choose a N5T University as their exchange destination. To stimulate virtual mobility a joint N5T course catalogue and an extended virtual curriculum, featuring blended learning, will be explored. The close proximity of our Universities allows for sustainable travel options, meaning that environmental impact will be minimal.

#### *2. developing our Educational Infrastructure*

Pedagogical development, including digital tools and methodologies, sustainable learning environments and digitalization are necessary parts in future Engineering education. Additionally, Lifelong Learning is an area of increasing importance that is both in high demand from industry and prioritized by all of the alliance Universities. Consequently, N5T will greatly emphasize benchmarking and sharing of best practices within these areas.

#### *2. offering Joint Master's Programmes*

Joint Master's programmes are and will continue to be an important joint educational activity for the alliance. The aim of the joint programmes is to offer unique educational content, support educational synergies and to integrate educational offers across the alliance with the objective to create an extended campus

### **II Research – we offer knowledge for a better world by**

#### *1. developing collaboration in Doctoral Education*

During the coming years N5T will focus on increasing the collaboration in doctoral education, in the context of working towards the Sustainable Development Goals. Jointly supervised projects will be offered in topics selected on a yearly basis. The aim of these efforts is to build a Nordic network for young researchers and provide access to the local research environments, infrastructure and courses across all partners. Financial and other means of support, including incorporating utilization of the N5T Joint PhD course database will be explored in setting up this initiative.

#### *2. further developing our Research Infrastructure collaboration*

Research Infrastructures including data, digital tools and methodologies, are essential assets for all N5T institutions and also large and long-term investments. It is believed that the N5T partners can benefit greatly from improving joint access to their combined catalogue of Research Infrastructure and thereby provide a platform for utilizing complementary equipment. In building on the work done by the Shared Infrastructure Group, N5T will investigate how to develop Research

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Infrastructure collaboration by sharing access, collaborating on joint training initiatives and exchanging methodologies. This initiative will also investigate potential funding opportunities for acquiring joint Research Infrastructure. The aim of these efforts is to position N5T infrastructures internationally and increase collective competitiveness.

### *3. joining forces in acquiring Research Funding*

Nordic Five Tech aims to continue on-going efforts on research support collaboration within the alliance through the Working Group Research Funding, thereby contributing to capacity building of and best practice exchange between its research support functions. As a means to increase proclivity for researchers to apply for joint funding with alliance colleagues, the Working Group Research Funding aims to establish a N5T incentive scheme through joint workshops, seminars, study visits etc., relating to Nordic and European funding opportunities.

### *4. becoming the higher education spearhead in Artificial Intelligence application to serve society*

Our Universities are all heavily engaged in AI research in our own right and can only become stronger by collaborating and coordinating our efforts. The Nordic AI Network constitutes an important platform for furthering alliance ambitions within this area.

## **III Creating Positive Impact by**

### *1. joining forces on Strategic Political Statements*

The alliance Universities share a common value to address the grand challenges facing our world, educating global citizens capable of being leaders who contribute to society and increasing the knowledge and innovation capacity of those within our spheres of influence. The alliance Universities share best practices and work to jointly communicate and raise awareness of this impact. N5T also seeks to jointly influence decision makers at the national, Nordic and European level. This includes writing joint statements and preparing white papers that address key issues that are of importance to N5T universities and societies. When appropriate the alliance will also arrange and support joint events that broaden and highlight our impact.

### *2. sharing best practice in developing the role of Universities as Ecosystems for Innovation*

The N5T Universities will share best practices on positively impacting society through development of new innovations, business developments and increased employment in the Nordic countries. The aim of these efforts is to initiate the development of a Nordic model to achieve sustainable communities by focusing on knowledge, expertise and technological solutions through collaboration with municipalities as living labs. Especially, the N5T will share experiences in student entrepreneurship and as contributors in ecosystems for innovation as well as in development of smart regions and sustainable communities in accordance with outlines in Horizon Europe. The N5T universities emphasize the broad approach to impact and innovation, considering education, research and innovation perspectives.

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