European Union
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SKILLS+
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SKILLS + ACTION PLAN FOR

Trøndelag
fylkeskommune

2019-2021

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Policy context

Trøndelag County Authority is a regional public body with elected representatives from political parties. The process of developing strategies and action plans is a long process involving a multitude of actors from politics, R&D, businesses, other public bodies, and organisations from all over the Trøndelag County.

The final strategy- and action plans is a compilation of texts based on input from politicians, administration, a variety of business sectors like industry, agriculture, fish farming, universities, R&D institutions, secondary education and so on. This processes gives input to the ground strategies in the governing *Trøndelag County – Planning Strategy,* which states for what areas there should be strategies and where it should be action plans.

The lessons learned in Skills+ project and later the Skills+ action plan was used as input to the development process of both (earlier) strategy documents and the Trøndelag Action Program (and the next revision of it in late 2019). One representant from the former *eTrøndelag* group- now Smart Societies has been a participant in the Skills+ project team. After having been presented and argued by the Skills+ team in the Smart Society group (where Skills+ is anchored as a project), the foreseen core actions were implemented into governing documents:

1. *Strategy for innovation and value creation for Trøndelag 2018*
2. *Action Program 2018-2019 for the strategy - a value creating Trøndelag*

These sentences embody the basic direction of strategies and actions relevant for Smart Societies group:

«Strengthen, further develop and implement digital- and technological knowledge lift in the businesses in Trøndelag». And «Contribute to the use of new technology in existing production-, and service environment by establishing digitalisation pilots in cooperation between public sector, businesses and R&D environment».

Policy instrument to be adressed

"Smart Societies"[1] is the policy instrument to be addressed. This will happen through two specific projects, Actions 1 and 2. Smart Societies is a group within the businessection of the County Council that works with digital development and competence enhancing projects.

It is important to increase digital competence in businesses in general, but lately the focus of the particular needs in small and micro businesses which represents 22% of the region's employees has become more prominent. This also indicates a need for a tighter cooperation between the County Council and the 9 business gardens/incubators which work directly with businesses in this segment in Trøndelag, with an overall goal to create a generic regional and national model for competence enhancement work in small and micro businesses. This is done in cooperation with SIVA in Action 1. SIVA is a public enterprise owned by the Norwegian Ministry of Trade and Fisheries, and is part of the public funding agencies for innovation and work closely with Innovation Norway, the Norwegian

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[1] At 01.01.2018 the Sør Trøndelag County Authority merged with Nord Trøndelag County Authority to Trøndelag County Authority. The *e-Trøndelag* strategy was revised and integrated in the new and improved *Smart Societies* strategy. *Smart Societies* contains much of e-Trøndelag strategy, but the focus is shifted from digital technology to digital competence.

Research Council and the Norwegian Patent Office. This enhance cooperation between Trøndelag County Council through the Smart Society group, the business gardens, Innovation Norway and R&D environment (ICT and advisors and content creators in Action 1), to the benefit of competence building in small businesses. As project owner of Industri 4.0 Trøndelag (Action 1) the County Council increases it's relevance as regional developer, which is a strategic goal according to Governmental policies for the County Council. Instrumental in this is the Smart Societies group, which then will become a spearhead regarding initiating projects and maintain and develop the cooperation between the above listed actors within ICT competence building in the region. Through Action 1 (Industri 4.0 Trøndelag) this becomes possible through concrete project cooperation between all the above listed actors, with The Trøndelag County Council by Smart Society group as project owner and manager, thus elevating the status and operational level of the *Smart Society* group. In Action 2 we address the need for development of digital skills in the population in general, and particulary in rural areas. This broadens the operating area for the Smart Society group and creates a link to municipalities through concrete action. The cooperation between different departments in the County Council; in Action 2 the "Smart Societies" group, the County Library, and the municipality libraries is areas for further development of digital skills.

The Skills+ Action PlanAction 1

Challenge addressed
- *Lack of (digital) strategy in companies*
- *Lack of understanding of the need to digitize in some businesses*
- *Lack of digital skills in management*
- *Lack of time and money to invest in digital development*

Solution found in SKILLS+ (e.g. good practice)
The background for the project is experiences, what we learned by doing our own investigations and analysis both outside and inside Skills+, and the way to set up the project by partners as Latvia by LIKTA practice for instance, but also the overall input from partners through discussions, presentations and good practices. A long conversation with one of Sachsen Anhalt's stakeholders; Gesch. fuhrer Andreas Vierling from IT Cluster Mitte Deutschland was very fruitful. At the end of the day, it is the overall input and experiences that makes a difference, not implementing a copy of a certain good practice.

The Smart Specialisation Strategy Saxony-Anhalt 2014-2020 and IT-Cluster of Central Germany.
How to implement ICT (Smart Societies for us) as a transverse theme in their Smart specialisation strategy. Smart Societies in Trøndelag has also been organized as a transverse theme, covering the main business areas in our regional strategies. (Trøndelags Smart Specialisation strategy is diversification, and as such covers many business areas). This is also reflected in Industry 4.0 Trøndelag (Action 1) as the 9 business gardens will develop 1 training program each (total of 9 different business areas) after the basic Step 1 training course is finished. ICT will be a transverse theme in the workshop-based trainings.

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Det har skjedd en utvikling med tanke på hvordan man tenker og jobber med temaene i handlingsprogrammet, og krysningspunktene mellom områdene er kanskje det viktigste. Det er en klar dreining fra silo til matrise.
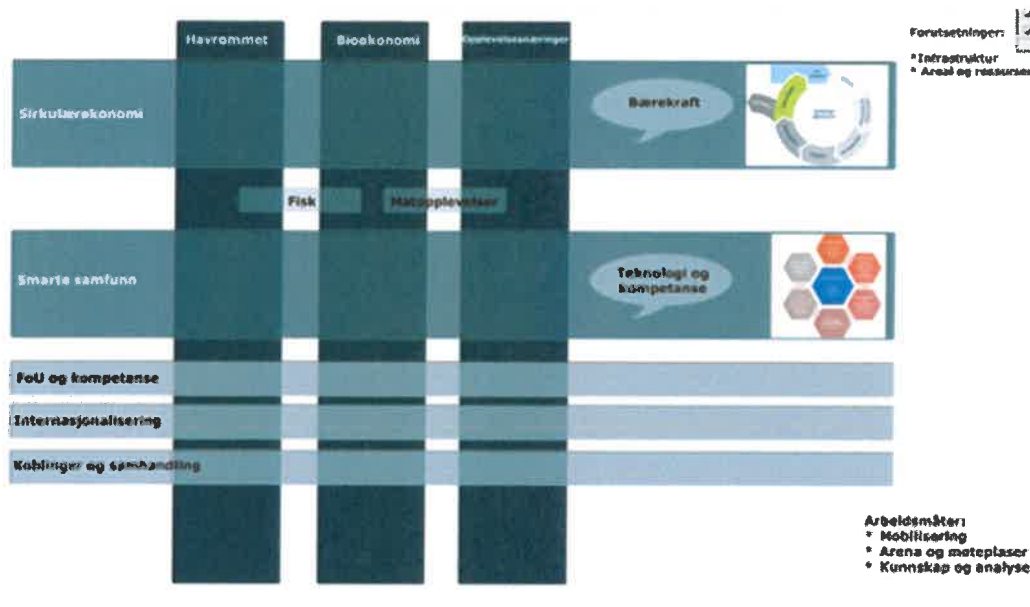
Figur 1: Matrise over hvordan man kan jobbe med satsingsområdene og verktøyene

Trainings for SME for development of innovations and digital technologies (LIKTA, Latvia): We learned how to organize classical ICT training for businesses, and what the main challenges was (cost, financing and recruitment). This showed us that we needed to organize Action 1 differently; reduce themes and lower costs of training for businesses, and thus increase regional funding.

"Industry 4.0 Trøndelag-digital transformation in small and micro companies"

The project was initiated by Trøndelag County Council, and is a low threshold offer for the smallest companies which largely have problems utilizing national offers of trainings because of low digital maturity, time, and costs of participation. The aim of the project is to enhance the digital maturity in 400 small- and micro companies in the Trøndelag region for 3 years. 92% of all businesses in the region has less than 10 employees. They represent a total of 23% of all the employed workers in the region. As such it is important to enhance their digital skills, starting with a low threshold offer, understandable and relevant for them.

The project was fully financed in May 2019, and is of 01.07.2019 operational in development phase for trainings- content creation and organizing. The focus is to prepare micro/small companies for a new digital reality, enabling them to see themselves in it, digitize/automate, develop digital business models, prepare the organization, invest in correct equipment, participate in pilot projects, cooperate digitally with others, and recruit correct personnel for the future.

Players involved
Project owner: Trøndelag County Council
Steering group: (not established formally yet – will consists of contributors to the project)
Advisory board: 4 Participants from the 2 universities in Trøndelag, 1 from R&D
Project coordinator: The National Park Business garden (also attended workshops and peer reviews in Skills+)
9 Business gardens /incubators: All in the region of Trøndelag (Established.)Subject partners for designing and holding parts of trainings within particular areas in workshop format: Businesses with particular skills, developers, R&D etc.(not recruited yet)

The project owner will have the financial- and over all responsibility of the project and participate actively together with the project coordinator and the other actors listed. The steering group will control the project and be a resource regarding further direction. The Advisory Board will be the main guidance in order to secure the content and framework for the different programs. To ensure legitimacy and independence they are recruited from the universities in the region. To operate the project, 9 business gardens in the region will be responsible for developing competence enhancing programs for a line of business (ex. Tourism, trade etc). Those programs will be standardised, and available for the other business gardens.

The business gardens will be responsible for developing the training programs within the generic frames developed by the Advisory Board, and further select subject partners for the trainings within their chosen business area. They will also be responsible for recruiting the SME's and perform a Digital Maturity Test in a one to one conversation with each business in order to establish a zero point analysis and an evaluation of which step of the pyramids 5 steps they should start:

The training modules is placed in a five-step competence pyramid in both workshop- based modules and individual pilot projects, in cooperation with the R&D environment in the region. The output of the first step is an understanding of themselves formulated in a digital development strategy for each business participating. Pilot projects – simple digitalisation of small tasks, and up to R&D project with the project partners, cluster-building or cooperation, and so on. It is important to say that the first year of the project is developing the content of these steps together with R&D partners and other cooperating actors in the system.

Step 0: Recruitment and experience of the businesses own digital maturity
Step 1: Basic knowledge of digitalisation, organisational development, digital businessmodels. Result will be their own digital strategy. If not developed, they will not be given permission to Step 2.
Step 2: Specialized knowledge about digitalisation in a certain business area. Incremental innovation through pilot projects funded by Distriktforsk (FoU for small and unexperienced businesses together with an R&D partner)
Step 3: (Not finalized – possible transfer of businesses to Omstillingsmotor (national offer by Digital Norway for more advanced businesses)
Step 4: (Not finalized – mainly disruptive innovation and R&D)
Timeframe
Three years (2019-2021) with a possible 2-year extension of program.

Costs in EURO
60 000 euros for the feasibility study (finalized in june 2018)
1,4 mill. euro for the main program in total.

	År 2019	År 2020	År 2021	SUM in NOK
Mobilizing participants (business gardens)	1 000 000	1 000 000	1 000 000	3 000 000
Development of training – content and execution (Including own efforts and contribution)	2 550 000	2 550 000	2 550 000	7 650 000
Meetingplace for businessgardens	100 000	100 000	100 000	300 000
Project management (external)	1 000 000	1 000 000	1 000 000	3 000 000
	4 650 000	4 650 000	4 650 000	13 950 000

Funding sources/status

The project is funded with 450 000 EURO from the County Council, additional funding from Innovation Norway (per business directly) and SIVA 250 000 EUR for project coordination of business gardens. Both national bodies. The project will last 3 years with a budget of 1,4 mill EURO. Sponsor-funding from regional banks is pending but represents small amounts.

Action 2

Challenge addressed
Although high ICT-skills in the population in general, still a lot of people struggling to cope with new public and private services demanding digital skills at a certain level. Also, the possibility to introduce pupils at the ground level in schools, and maybe small rural businesses to new technology is important.

Solution found in SKILLS+ (e.g. good practice)
Ventspils digital centre (VDC), Latvia
This action is mainly based on the idea of Ventspils digital centre, Latvia. The main takeaway was to see how digital technology was made understandable for kids/users by introducing it as tools for creation of cool things like the possibility to design graphics and print it via PC on to a t-shirt or design a 3D model and have it printed on a 3D printer. Not very advanced or new technology, but it was obvious that ICT need to be understood as tools to achieve a concrete goal, not as the goal in itself. The low threshold approach could be used in our region's libraries, and with an effect far beyond traditional ICT-courses and trainings. With a relatively low costs and presumably high learning effect, the library could be a creative workshop.

Action
The Library as a low threshold local digital technology hub, where three pilot projects for libraries have been funded with 130 000 EURO from the County Authority.

The libraries are a very suitable place for such activities. Every municipality, 47 in our county, has a library. We will create 3 digital coworking spaces in 3 libraries in Trøndelag with 3D printers, sewing machines, and computers etc. Each library will use dedicated personnel and volunteers to run the project.

The pilot project aims to test out the library as an arena for a low threshold offer to people, where they can try out and learn using digital tools. The project also has an environmental/circular

economic angle as a place for ppl to be able to repair things they own - like 3D print a new plastic hinge to replace a broken one for example. Co-working spaces is also a term frequently used for this kind of set-ups.

The libraries will have to develop the content and environment. The deadline for the libraries (with their local stakeholders/users) to come up with proposals for how this best can be done, is 1. of September 2019. Then the proposals will compete among each other for the 3 grants available. A group from the County Council will pick the three winners, and the work will start to create theses workplaces in the libraries. Each library would need to involve their local stakeholders (volunteers, clubs, associations, schools...) to operate the offer. The goal is to establish a well-functioning digital workshop environment in the library.

After 1-2 years the results from the 3 winning libraries will be evaluated (depending on how long it takes to implement the offer). This evaluation will show what technology/equipment, training, organisation and workshop environment had the most appeal among users. Then there will be decided whether to implement this in other libraries in the County. There will be a need for other kind of funding than this pilot project will provide.

A long-term goal is also to make the library be a helpdesk for people struggling with accessing public/municipality services through internet. Cooperation with primary schools, and to be a workshop for also micro companies where they can try out new technology will be a long-term goal. The project is awaiting input from all the libraries in Trøndelag regarding ideas and project descriptions.

Players involved
The Trøndelag County Council, the Trøndelag County Library, the municipal libraries, and possibly also commuting hostels, municipalities, regional authorities, chambers of commerce and business associations.

Timeframe
2019-2020 (21)

Costs in EURO
130 000 EURO

Funding sources/status
The project has been granted money from both the Trøndelag County's Regional development funds from Trøndelag County Council and Trøndelag County Council Environmental funds for implementation of 3 pilot projects. The money is available as 3 grants to the three winning/selected libraries (3x30 000 EUR) through a competition between the county libraries, in developing the best environment and content for such a workshop. The deadline for delivering proposals are 1st of September 2019.

Budget

Purchase of equipment (3D printers, sewing machines, PC...)	90 000 EUR
Digital training for the pilot-libraries	10 000 EUR
Own efforts and construction/adaption of work spaces in the libraries	30 000 EUR
Total	130 000 EUR

Financing

Trøndelag County Council Regional development funds	85 000 EUR
Trøndelag County Council Environmental funds	15 000 EUR
Own effort from libraries (staff, hosting etc)	30 000 EUR
Total	130 000 EUR

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