

## SMART SPECIALISATION AS A POTENTIAL TOOL FOR ENABLING ELECTRIC AVIATION IN THE KVARKEN REGION

**How should Kvarken region proceed with electric aviation? One option is to look at strategic tools, which could help in establishing this new, exciting industry. In this info sheet we look at smart specialisation and explain what it might offer for future implementation of electric aviation in the Kvarken region.\***

Smart specialisation is a concept which has been developed by the European Commission. It is a method of doing things (i.e. an innovation policy) as well as a regional tool (strategy), which helps regions to develop their economies based on their existing strengths and capabilities. Smart specialisation focuses on place-based solutions, which could attract global markets. The idea is to look at regions and discover new potential in them, based on existing expertise and knowledge. Specialisation means that existing industries develop some new solutions together. One example might be the development of new medical equipment, as in such case engineering expertise is combined with medical expertise. Two discrete industries join forces in order to make something new.

This process of regional discovery is called 'entrepreneurial discovery process' (EDP) and means that regional actors should together discuss new areas on which the region could focus. In principle, the idea is to discover new markets that the regional companies and service provid-

ers could aim for, as well as assisting in making local conditions ideal for this sort of positive development. This is why companies are very important actors in EDP, alongside public organisations, universities and NGOs, as well as citizens and other customers for these potential new products and services.

### SMART SPECIALISATION PROCESS IN PRACTISE

So, how do regions 'do' or implement smart specialisation in practice? Basically, smart specialisation is an ongoing process, which is guided by regional smart specialisation strategies (S3). These strategies have been formulated by different regional governments and are based on regional EDP. This means that they have been formulated together with different regional actors. This strategy document then guides regional specialisation by clarifying the existing strengths, potential markets and practices which could enhance regional collaboration and innovation. Smart specialisation strategy implementation is comprised of six steps (see Figure 1). After establishing governance for the strategy (those responsible for the strategy), the process begins with analysis, strategy development (EDP), prioritisation, appropriate policy mix, monitoring and evaluation and finally, a new evaluation of the chosen direction. The idea is to continue developing the region while learning from this mutual process.



Figure 1. Six steps in smart specialisation implementation ([S3 Online](#)).

\* The Kvarken Council EGTC encompasses three Ostrobothnian counties in Finland and the County of Västerbotten and the Municipality of Örnsköldsvik in Sweden. Together they form the Kvarken region. The Kvarken Councils members consist of cities, municipalities and regional councils from all over the region.

As can be seen from the six-step description, this exercise includes many useful elements, which increase knowledge of the regional activities (analysis), as well as overarching interaction between the strategy implementers and regional stakeholders via repetition. This is very useful as it facilitates discussion between different partners. Stakeholders also learn that the developers are interested to hear their thoughts - this may spur further interest and confidence in regional development in general. Next, we can examine more closely the potential benefits that this offers for Kvarken region.

### WHY MIGHT SMART SPECIALISATION PROCESS BE USEFUL FOR THE KVARKEN REGION?

Firstly, a smart specialisation process is very useful in order to understand the strategic development of the region itself. Almost every European region has prepared a strategy to help in developing the regions. It is considered so useful in fact, that even regions outside of Europe, like regions in Australia and Israel have made smart specialisation strategies, as they see the process itself as valuable.

By engaging with local stakeholders in EDP, Kvarken Council (as the representative of the region) has the potential to learn what is important for the local people. This discussion among different stakeholders creates better visions for the future. In the Kvarken region's case, this discussion offers a way of identifying where cross-border cooperation could be developed, and what type of development the region needs. Moreover, the implementation of a strategy is a mutual learning process between Kvarken council and the stakeholders across the cross-border region.

Smart specialisation strategy also helps in profiling the region. Although the strategy has been originally developed for a somewhat smaller regional level, there are already examples of cross-regional smart specialisation strategies; for example Northern and Eastern Finland have done their own [ELMO](#) (Elinkeinot Murroksessa [Industries in Turmoil]) smart specialisation strategy in order to raise awareness of the strengths and challenges that they face in the whole of Northern and Eastern Finland. By developing this type of strategy, Kvarken region might be engaging in important questions concerning what the region is about and what is important for its de-

velopment. This helps in creating a mutual vision and sharing it with others. This vision might also be helpful in attracting talent and investments in the future.

Smart specialisation can also help in communication and engagement, especially in regard to European level discussions. There is a specific EU-led organ called [S3 Platform](#), which is based on peer-review process. The idea of the platform is to support cross-regional knowledge exchange, acting as a forum for extra-regional collaboration. Regions can present their strategy processes

at S3 Platform events, and are evaluated and encouraged by other regions that are working with similar development issues. This may also be a help in future development projects, as potential partner regions can be found through this process.

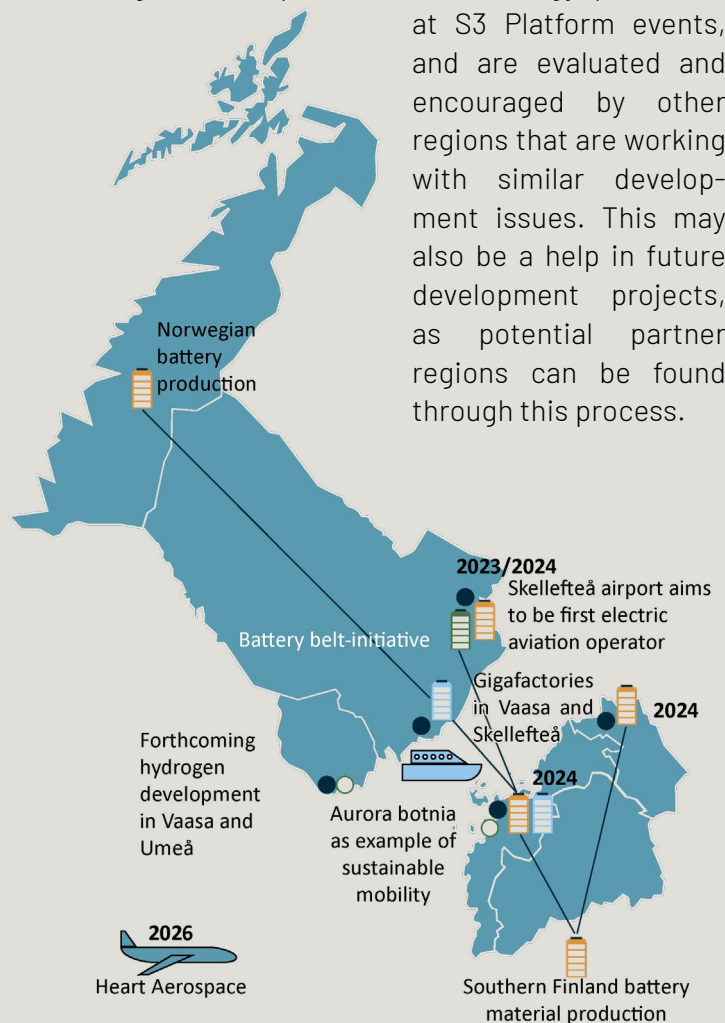


Figure 2. New upcoming industries in Kvarken region and Nordland County.

### POTENTIAL SPECIALISATION AREAS

What could be the potential specialisation areas for Kvarken region? These need to be discussed with regional stakeholders during the EDP, or formulation of the strategy; however, it is important that the chosen specialisation areas do not collide with the regional strategies that already exist within the participating regions of Kvarken (such as Västerbotten or Ostrobothnia, for example). Therefore, focus areas should be in some way related to mutual benefits and collaboration. Sus-

tainable mobility might be one specialisation area for the whole Kvarken region, as electric aviation would fit alongside forthcoming battery production activities, as well as the Aurora Botnia ferry project. Other related specialisation examples might be sustainable travelling and renewable energy technology, or hydrogen energy. As can be seen from Figure 2, there are several new initiatives which are presently transforming the region.

The map presents a visualisation of the emerging battery (orange) and hydrogen (blue) development as well as interesting electric aviation sites (turquoise), to highlight how the Kvarken region has become a hub for many interesting developments, and how these may align with future electric aviation industries along with sustainable travelling. Future battery belt initiatives might benefit from emission-free travel between the sites. Implementing electric regional aviation could be at the core of strategic measures promoting sustainability agency in the region. Further examples might also emerge after engaging with regional stakeholders.

#### WHO SHOULD PREPARE THE STRATEGY AND HOW?

The Kvarken Council has recently transformed from an association into a European Grouping of Territorial Cooperation (EGTC), which means that it is a self-sufficient legal entity. The Kvarken Council oversees the EGTC and would therefore be the natural leader for the strategy process. Normally, the strategy work is led by a steering group, which in this case could consist of the Kvarken Council members and regional officials. In addition, there are various task groups, which work under the steering group and engage with experts and regional stakeholders to enable entrepreneurial discovery processes that may be used as a basis in building the strategy. Figure 3 shows one structure which can be applied.

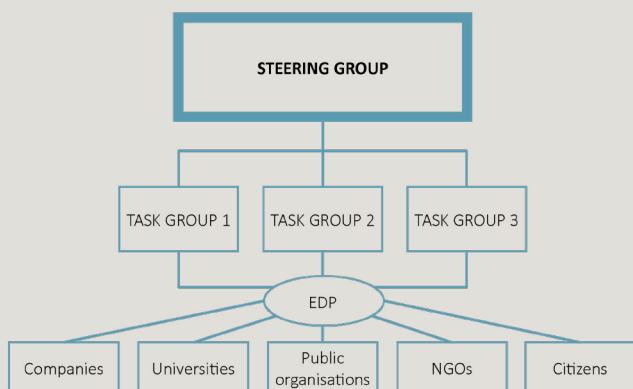


Figure 3. Example structure for a smart specialisation strategy process

A steering group should include members who oversee the final strategy, who take ownership of the process and its implementation. This organ guides the process and is presented with the outcomes, in order to ensure that the strategy is both useful and practical for future implementation. The steering group also acts as the highest level in the process, ensuring that the strategy meets the needs of the regional stakeholders and that Kvarken Region as a whole is well represented in the process.

Task groups prepare the necessary analysis and stakeholder engagement (EDP, or entrepreneurial discovery process) in order to design a strategy based on the expertise of the region. Task groups can consist of interested partners, such as researchers, regional planners and developers. Their main task is to engage with society and formulate the basis for a strategy, to ensure its relevance and importance for the regional stakeholders.

This strategy development could perhaps be a basis for an Interreg Aurora project; or there may be options to look for European Commission funded pilot projects for macro-regions, similarly to the ELMO strategy for Northern and Eastern Finland.

#### THE PROCESS THUS FAR

Recent developments in the Kvarken region related, for example, to the emergence of the battery belt, and the work done in the FAIR project thus far, suggest that a new regional development path is emerging in the region that builds on active cross-border collaboration and a commitment to promote sustainable development and mobility. This all points towards a pathway for electric aviation in the region, which is supported by strong commitment from various actors to take the necessary steps in implementation. There are relevant industries, such as battery production, and eager stakeholders, which may facilitate piloting (e.g. the Kvarken Council, FAIR project competence network, and Skellefteå airport, with electric aviation training and charging opportunities). Interestingly, the region also has some history in pioneering regional aviation activities (please see [FAIR Infosheet 4](#) for more information), which provides a good basis for further piloting and implementing activities regarding electric regional aviation over the Kvarken strait.

In the remaining period of the FAIR project,

the work in WP1 - as one part of the analysis of regional effects of electric aviation - will focus on identifying the potential path creation process in the Kvarken region that could have electric regional aviation at the core of its activities. Furthermore, the analysis will focus on exploring how the EGTC status could help in strategy design and implementation. It is suggested that the development of a smart specialisation strategy might be one option for enhancing the role of the EGTC and role of electric aviation in the Kvarken region.

## WORK PACKAGE

WP 1 - Regional effects of electric aviation

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## ABOUT FAIR

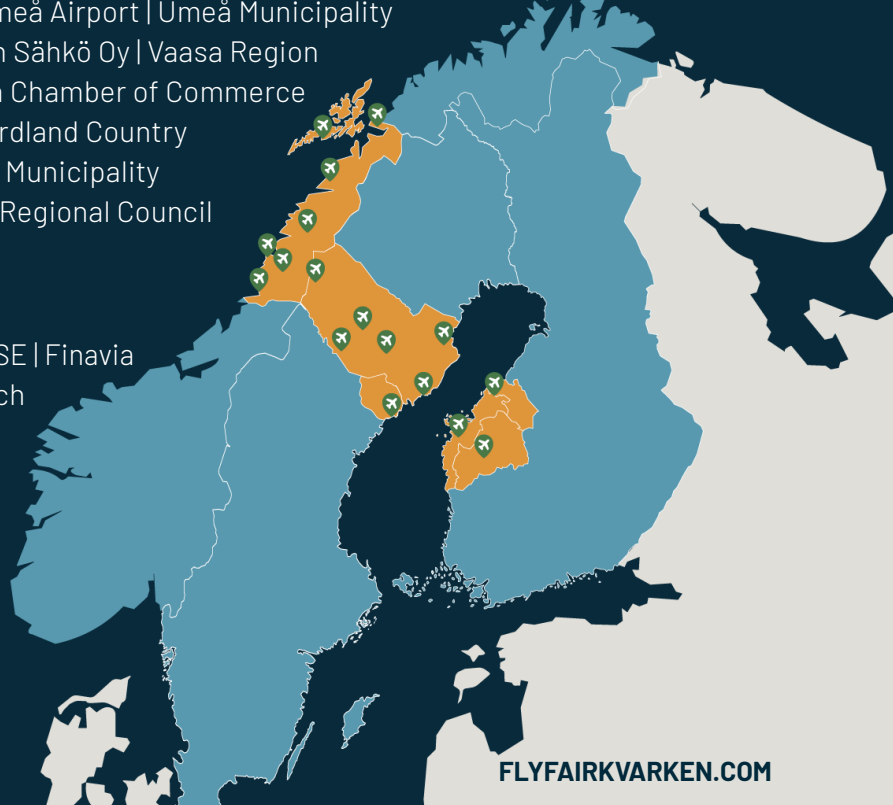
FAIR (Finding innovations to Accelerate the Implementation of electric Regional aviation) is to be seen as a first step of preparing the Kvarken region for an early implementation of electric aviation. The project increases the knowledge base about electric aviation, investigates the possibilities and surveys both the needs and the required technical investments.

## FINANCIERS

Interreg Botnia Atlantica | Region Västerbotten | Regional Council of Ostrobothnia | Kvarken Council (Lead part) | BioFuel Region BFR AB | City of Vaasa | FAB Kronoby Flyghangar | Into Seinäjoki Oy | Lycksele Airport AB | MidtSkandia | Ostrobothnia Chamber of Commerce | RISE Research Institutes of Sweden | Skellefteå City Airport AB | Skellefteå Kraft AB | South Ostrobothnia Chamber of Commerce | Storumans Kommunföretag AB | Swedavia Umeå Airport | Umeå Municipality | Umeå University | University of Vaasa | Vaasan Sähkö Oy | Vaasa Region Development Company, VASEK | Västerbotten Chamber of Commerce | Örnsköldsvik Airport AB | Nord University | Nordland Country Municipality Brønnøy Municipality | Alstahaug Municipality | Helgeland Regional Council | Indre Helgeland Regional Council | Rana Utvikling

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