

Take-off Guide

The practise of orchestrating Hydrogen development in Europe

**Interreg
North Sea**



Co-funded by
the European Union

EHRIN



BETTER GOVERNANCE

Table of content

Introduction	4
A step-wise approach	8
Step 1: Orientation	10
Stakeholder analyses	11
Regional DNA	12
Step 2: Direction setting	14
Define your desired system or happy land	14
Network goals	15
Step 3: Engagement strategy	17
Step 4: Organisational capacity	20
Competency framework - Set your organisation up for success!	20
Making the connection	24
Step 5: A strong foundation	25
Keep on going!	28

Introduction

The purpose of this guide is to support you in building productive multi-stakeholder networks for driving hydrogen in your region.

Building networks for driving innovation means engaging with stakeholders to link people and initiatives. The more productive networks create a shared vision and set an agenda for progress. This work requires an external orientation and an ability to do orchestration. The take-off guide helps to understand what it takes and prepare yourself and your organization.

For whom?

Our target audience are the people working for regional authorities in the North Sea Region. In fact, we believe the take-off guide can be of great use for all regions in Europe.

Check out this guide to get tips and ideas for how to make your network fly!

Who are we?

EHRIN is short for Excellent Hydrogen Regions in the North Sea Region. This is a small-scale project in the realm of INTERREG NSR with partners from Germany, Sweden and the Netherlands.



Amt für regionale Landesentwicklung
Leine-Weser



The County
Administrative
Board of Skåne

provincie Drenthe

Read our impact statement

“We increase the capability of regional authorities to leverage networks for driving hydrogen market development, by offering hands-on networking and network driving experience: ‘knowing how’ supported by an understanding of stakeholders, regional DNA and competencies: the ‘knowing about.’”



EHRIN partners in Europe



Get ready for take-off!



A step-wise approach

In EHRIN we took a closer look at successful networks and coalitions in order to understand the key success factors involved. And although the boundaries between different stages of progress are often blurry, we were able to identify a number of steps in the process.

General starting point is the awareness that networks have an open and direct relationship with its larger social environment. It includes all the aspects of society that are changing so fast and those more stable, such as increasing global economic development, population growth, and communication technology and regional characteristics, to name a few.

The take-off approach in 5 steps has been designed to go beyond the usual visioning process with posters that are framed on the wall. This approach, captures people's attention on real action based on a future the group decides to make happen. In this case, a future with Hydrogen as part of the sustainable energymix and business opportunity for companies in the region.

What has made us? What do we want ? How do we get there?

- **Step 1: Orientation.** The analyses of hydrogen programmes and initiatives, main stakeholders and regional place and leadership characteristics (DNA) makes this initial but very important step.
- **Step 2: Direction setting.** Analysis of the of the desirable system including network goals.
- **Step 3: Engagement strategy.** It integrates the learning from step 1 and 2. The content therefore derives from the nature of environment and network. In the step 3 we design and execute our engagement strategy.
- **Step 4: Organisational capacity.** This step concerns the organisational capacity as a requirement for the role as orchestrator of networks for innovation (read: networks for hydrogen).
- **Step 5: A strong foundation.** This final step entails the creation of a strong foundation. It's touches upon behaviour elements and core values. Courage, resilience, our willingness to learn and our relations to others are highlighted in this final step.

The sequence of these steps through which the organisation should attempt the task is not immutable and it will be elaborated in various ways depending on the nature and circumstances of the network.



Step 1: Orientation

By gathering contextual information about your stakeholders and understanding your regional place and characteristics (regional DNA), you can answer the question: what brought us here? Which strengths and history can be leveraged?

Sarah-Ann Tönsmeier, Amt für regionale Landesentwicklung Leine-Weser:

“In order to understand our own stakeholders’ point of view we have interviewed them in the months prior to the conference. If possible all hosts of the event should be present during the interviews in order to become familiar with the guests. This will cause a recognition factor during the conference and in the general work of the network. We have opted for face-to-face meetings for the interviews instead of organizing the appointments online. In that way the conference meeting will not be the first personal meeting and create a more familiar atmosphere”.

Stakeholder analyses

Stakeholder	Needs	Interests	Concerns	Expectations	Action

There are many tools available to structure your understanding!

This work can be done for key stakeholders that should be engaged.



Regional DNA

Provincie Drenthe:

“All peat areas in south-east Drente were populated mainly by non-Drenten, predominantly Groningers and have their own character, which differs from both the Gronings and Drents character due to the mixing of different elements and the influence of the peat industry. The influence of the Groningers predominates strongly, which is already expressed very strongly in the language and likewise in the business and entrepreneurial spirit that reveals itself here. The large peat bog complexes in the East have been and still are almost entirely exploited by the businesslike and down-to-earth Groningers. ...They have become rich by it; the Drenten have largely indulged in digging their own fuel every year.... He is bound to house and yard, to land and people, and he has been only slow to furnish his farm to modern requirements.”

(De Nederlandse Volkskarakters. “De Drenten”. Anne de Vries, 1938)



Step 2: Direction setting

Define your desired system or happy land



Network goals

Setting the goal of the network is a matter of exploration. Where do we want to go? What is our shared desired future? Visualizing happy land is a true energizer!

Hydrogen network in Skåne

The overall goal of our network is to facilitate development of the hydrogen as a part of energy picture for Skåne. Network of key stakeholders is seen as the competency forum and leverage for development. As we are only in the starting phase, one of the operational goals is to better understand each other's needs, capabilities, and priorities. Competencies are seen as baseline of making informed strategic decisions thus another goal is to build competencies around hydrogen for different stakeholder groups, including local and regional policy makers, local governments, and municipalities at large. In the long term the hope is that network will grow and spread to other groups of stakeholders and lead to capacity building needed to boost and sustain hydrogen development in Skåne.





Engagement session Leine-Weser February 2024.

Step 3: Engagement strategy

The next step after the orientation, which resulted in an understanding of the playingfield, interests and social-historical patterns of innovation and collaboration, you are now set for designing an engagement strategy.

The picture shows an engagement strategy session facilitated by our partners Amt für Regional Entwicklung Leine-Weser. The yellow and red stickies you see on the tables are part of a method called “the headstand technique for problem solving”. Instead of finding solutions to a problem we reversed the meaning of the original key question to collect ideas through brainstorming. For the attendees it was a fun approach to engage. It was a simple and effective approach to a difficult question.

Lansstyrelse Skåne:

“It is important to start with setting hydrogen on the agenda! Start with capacity building, knowledge leverage for stakeholders. Municipalities are very important to include, even if from the beginning there will be just few of them interested in hydrogen. But this is about sending signals that something is happening, that this is important, and then the importance will grow.”

(citation from the innovation practitioner and expert)



Engagement practises – a narrative by Länsstyrelsen Skåne

To facilitate development of hydrogen production and use in Skåne, the key stakeholders were identified, and their needs were analysed in dialogue sessions. This was an important step as it led to understanding the key barriers to development of hydrogen economy in Skåne. As investing in hydrogen production facility is a substantial investment coupled with many risks, obtaining the operation permit was identified as both a risk factor but also a tangible barrier for development. Permits are regulated by many factors and the process to obtain one is generally seen as rather difficult to make it effective. The dialogues helped us to understand how to go on. We decided to develop a guide for requesting and handling hydrogen permitting to support hydrogen projects.

County Administrative Board's (Länsstyrelsen Skåne) ambition is, as being the responsible body for issuing hydrogen production permits, to facilitate the permit process and develop **informative guidelines** for seeking permit. Guidelines are produced with a close communication with the target group. Draft is evaluated in a pilot case, where a company commencing the permit process provides for a feedback and improvement opportunity.



In parallel, hydrogen's role in energy system is highlighted on a strategic level. As the political and development agenda for Skåne is to a large extent following the Climate and energy strategy for Skåne, the ambition of County Administrative Board (Länsstyrelsen Skåne) is to place hydrogen in this strategy as one of the building blocks of energy system in Skåne. In this process a range of stakeholders is involved including potential producers, regional government, and experts.

What did we learn?

It became apparent that, in a short term, a large-scale hydrogen production in Skåne is less likely to be realized as the county large investments in renewable electricity production should be in first place to enable the green hydrogen production. However, there is great potential for small-scale hydrogen systems where the operator can maximize benefits of all energy and products streams, where hydrogen can be used directly in vehicles, as energy, energy storage and/or for power flexibility services; heat supplied to the existing district heating network, oxygen used for sewage/water treatment etc. Such systems can strengthen society's resilience and improve the profitability of investment. An example of such system is the Hydrobust system. In this dynamic system by the municipal housing company, where wind and solar energy is used to produce hydrogen and store the excess for e.g. night use. Hydrogen is used as well at own refueling station and heat is used in the district heating system.



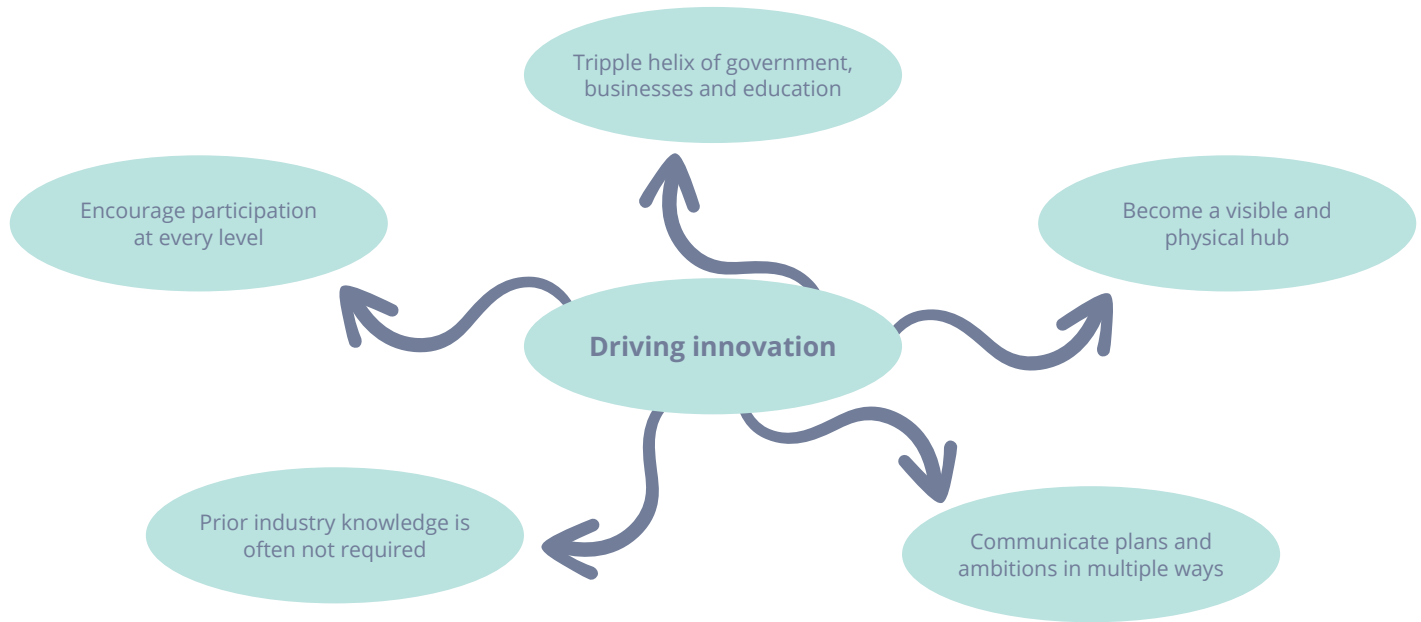
Step 4: Organisational capacity

Competency framework - Set your organisation up for success!

Regional authorities throughout Europe play a role supporting the transition to more sustainable sources of energy. This entails building thriving communities of innovators and entrepreneurs, supporting all who pursue ideas with a positive societal impact. The question is not if, but how this can be achieved. How do we establish communities and networks for hydrogen market development in our regions? And what does it take to create a next step, build a joint plan or develop a supply chain? Part of the answer lies in the competencies and skills of people involved.

The competency framework presented is based upon both theory and practise. TNO, the Dutch Organisation for Applied Scientific Research has been of great support.

Orchestration... What does it take?



Competency matrix - Orchestrating Hydrogen development

Competency	Basic	Intermediate	Advanced
Networking and alliances	You have some relationships with stakeholders and are familiar with their business. You can mobilise stakeholders in the network, connecting their interests with the project.	You have personal relationships with the most important stakeholders and you know their business very well. You build alliances, promote collaboration and create a hub for stakeholders, connecting their interests with a common goal.	You have personal relationships with stakeholders, engage with potential stakeholders and know their business very well. You build alliances, promote collaboration and create a hub for stakeholders, connecting their interests with the regional goal.
Stakeholder Management	You are able to manage the different stakeholders' requirements and expectations. You connect the stakeholders to the project and they know their impact, keeping them satisfied.	You connect stakeholders and encourage collaboration, enhancing their influence and creating a sense of responsibility. Not only are they satisfied, but they know their influence and role in the project.	You actively influence the stakeholders, managing them closely so they know they are irreplaceable and valuable to the project. By promoting collaboration, stakeholders increase their impact and work together as a team.
Hydrogen knowledge	By using your basic knowledge on the field, societal and political developments, you see opportunities.	You have intermediate knowledge on the field, societal and political developments. You see opportunities and know how to transform them into results.	You have advanced knowledge on the field, societal and political developments. In addition to your own knowledge, you have external sources that inform you of trends and developments. You are able to see opportunities and transform them into results.
Standards, policies and regulations	You are familiar with common standards, policies and regulations on hydrogen.	You know the standards, policies and regulations on hydrogen. You are familiar with what permits to apply for and solve problems regarding regulations.	You know the standards, regulations and permit applications required for hydrogen. You are able to advise stakeholders on these topics and help them to solve problems.

Competency	Basic	Intermediate	Advanced
Connecting leadership and management	You acknowledge people's opinions and you know how to manage the internal organisation.	You acknowledge people's opinions and take them into account in the decisionmaking process. You manage the internal and external organisation, facilitating communication between them.	You acknowledge people's opinions and you manage the internal and external organisation. You create a support base by including everyone in the process, also taking their opinions into account in the decision process.
Inventiveness	By combining your ideas with the ideas of others, you are able to tackle problems and resolve them.	You are able to quickly establish the correlation between new information and the project. Your ideas are significantly innovative and you integrate them with the ideas of others to implement them.	You are able to quickly establish the correlation between new information and the project. Your ideas are significantly innovative and integrated with the ideas of others, they change the status quo.
Strategy Management	You facilitate the process for the network to develop a joint strategy that is adopted by all stakeholders.	You develop a joint strategy in cooperation with your network that is adopted by all stakeholders.	You develop a joint strategy in cooperation with your network that is adopted by all stakeholders. You recognize internal and external developments, adapting the strategy accordingly.
Communication	You are able to communicate information and ideas between actors in the internal organisation.	You facilitate communication between the external and internal organisation. Furthermore, you translate ideas and information between actors.	You are able to translate internal and external ideas and information into a story that you communicate to stakeholders.

Link to full report: <https://www.interregnorthsea.eu/sites/default/files/2024-05/EHRIN%20Compentency%20report.pdf>



Making the connection

The network grows and diffuses through implementation and making connections. Creating a network of networks – for more knowledge exchange, business opportunities and inspiration.

During our development conference in Malmo in April 2024, we connected to BOWE2H, an Interreg Baltic Sea Region project on offshore wind and in October 2024 our conference was a joint effort with Interreg Europe project GH2M which is short for Accelerating the deployment of green hydrogen mobility in EU regions.

Länsstyrelsen Dagmara Nawrocka: “Despite the maturity of initiatives, driving network is a very important tool to spread the knowledge and grow impact, but also as a way of finding inspiration and building capacities. In Skåne we identified networks as highly valuable and we:

- connect to the network of municipal energy strategists to channel information and build capacity in hydrogen issues
- interact closely with the regional government office and the regional energy agency as they both drive multiple networks in related areas such as local energy transformation and use, heavy duty transportation issues
- exchange experiences with other hydrogen projects in neighbouring regions of Sweden
- grow our own capacity in driving hydrogen issues by partnering with highly acclaimed biogas network for best practice and inspiration

Step 5: A strong foundation

The EU values diversity as a source of enrichment, innovation, creativity and strength. A diverse, inclusive environment is one where all persons from different backgrounds receive equal opportunities, feel a sense of belonging and are appreciated for their unique contribution.

The final steps entails the creation of a strong foundation. It's touches upon behavioral elements and core values. Diversity & inclusion. In the looking at stakeholders, the design of our engagements, logistics and faciliation of dialogues-this is on our mind.

Sarah-Ann Tönsmeier, from Amt fur Regional Entwicklung Leine-Weser, describes the diversity & inclusivess aspects of the development conference in Hannover, February 2024.

"Inclusion is not only about creating a space where people can just "be" at the event. It is about creating a space where people can participate just as anyone else. Make sure that your event location is completely accessible for anyone.

We have asked speakers of any background to give a presentation – and it was positively noted by the guests. Especially female guests commented on the fact that they felt represented at the conference which made it easier for them to network.





As in any international conference the language barrier might be an issue. Make sure to have a balanced guests list and hosts around that feel comfortable speaking every language represented. Multilingual people can act as a mechanism to overcome language barrier and make everyone else feel understood”.

Marcus Ek, Marike Hoekstra, Dagmara Nawrocka and Sarah-Ann Tönsmeier.

On our way - How it all fits together



A strong foundation: **SUSTAINABLE DEVELOPMENT GOALS**

Keep on going!

This take-off guide is a sketch of the steps we take towards creating a sustainable future. It clarifies what brought us here, where we want to go and how we, as regional authorities, can contribute to this change by building strong networks. Please use this document as a guide, when you discuss plans and ideas in your organization and region. Courage, curiosity and patience are key in this complex journey. So, keep on going!

“The cooperation with our municipalities’ representatives in the region of Leine-Weser is a main focus point of our work. Hence why I believe that this is a special occasion to bring together our regional and European partners to discuss, reflect and support each other on the topic of hydrogen.”

(Frauk Patzke, Landesbeauftragte für regionale Landesentwicklung Leine-Weser)

“We need to have stakeholders from the whole hydrogen value chain being active in Skåne. We need to have green electricity for hydrogen production. We need hydrogen companies seeing a business case in Skåne. It is a beginning of journey. A lot to learn, a lot to do. Working in networks with others, sharing same goal is both inspiring, leveraging knowledge and giving strength. Cooperation is the key to open the future.”

(Rima Dauod, Head of the Environmental Department, County Administrative Board in Skåne)



EHRIN partners



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Administrative
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