

A look at Germany's National Ports Strategy: Promoting the infrastructure of ports for hydrogen imports as a national task in a sustainable way

The German National Hydrogen Council welcomes the publication of the National Ports Strategy by the German government and the recognition of ports as an essential component in the energy transition. The strategy's objective of developing the 'ports into sustainable hubs for the energy transition' corresponds to the requirements arising from the necessity of importing hydrogen and its derivatives, among other things. Ports in Germany serve both national and European interests as hubs for energy imports – an aspect that must be taken into account in the design of the National Ports Strategy and in the financing of the necessary measures.

PORTS ARE ESSENTIAL FOR THE HYDROGEN RAMP-UP

Ports play a crucial role in the energy transition, particularly when it comes to the import of hydrogen and its derivatives, but also the provision of green fuels for maritime shipping. Germany will have a hydrogen demand of 90 to 135 TWh in 2030 and will use imports (equivalent to 45 to 90 TWh) to cover 50–70 per cent of this demand, according to the National Hydrogen Strategy. German sea ports will need to be used in handling some of these imports. The National Ports Strategy and the resulting measures at the port locations must be aligned with this objective. There are a number of different options for import by sea, such as ammonia, methanol, SNG or LH₂. This plays a decisive role in the selection of the locations and the development of the necessary infrastructure. To enable the hydrogen ramp-up in the coming decades, the course must also be set now for the ports parallel to the infrastructure for land-based transportation of hydrogen and its derivatives (for example, via the hydrogen core network and downstream distribution grids).

STRATEGIC GOALS OF THE NATIONAL PORTS STRATEGY SUPPORT THE TRANSFORMATION OF THE IMPORT OF ENERGY AND RAW MATERIALS

The National Ports Strategy formulates important strategic goals with regard to the import of hydrogen and its derivatives. The National Hydrogen Council considers the following points to be of particular interest:

- ◆ A needs analysis should be conducted before the decisions on the locations in Germany are taken.
- ◆ The extension of ports as hubs for energy sources.

A site analysis must be carried out to identify the ports that are best suited for the respective import route of hydrogen and its derivatives – also taking into account the environmental impact – in order to serve as hubs for imports. The requirements that the ports must fulfil in their function as hubs must be determined by means of a cross-site needs analysis. It must be ensured that the required port infrastructure is harmonised with the respective import projects. Both ensure efficient utilisation of limited resources (such as land requirements) and make it possible to prepare the ports specifically for increasing demand. The right choice of a location is also crucial to ensure that the infrastructure for the further transport of hydrogen and its derivatives is guaranteed (proximity to the H₂ core network or other transport options, for example).

The expansion of the import infrastructure at the individual port locations is challenging in view of the various options for importing hydrogen. It is crucial here that the ports as a whole have a flexible infrastructure that allows a variety of means to import hydrogen. The ports must be able to fulfil the various import requirements and ensure efficient processing of hydrogen imports.

LACK OF DETAIL AND FUNDING JEOPARDISE THE TRANSFORMATION OF PORTS

Unfortunately, however, the objectives rightly set out in the strategy are not sufficiently specific. There is a lack of clear quantitative targets and timeframes to quantify progress. Specific targets are essential to ensure an effective path to achieving the desired transformation. The National Hydrogen Council is calling upon the responsible federal and state ministries to set up a monitoring programme with specific targets and timelines to review the transformation. In addition, the lack of guaranteed funding for the realisation of the projects must be emphasised here as a critical point. Successfully upgrading our ports for hydrogen imports requires considerable investment in infrastructure (for example, in deepening waterways, wharfs, etc.). The objectives of the National Ports Strategy remain simple declarations of intent without a clear financing strategy. There is a national scope to the importance of the ports with regard to the import of hydrogen and its derivatives. On the other hand, the federal states will in general finance the port extensions. We need a reorganisation of the distribution of costs here. The National Hydrogen Council proposes that the federal and state governments share the costs. The prerequisite is that the ports and federal states embrace the site and needs analyses. New funding models for upgrading the port infrastructure and simplified approval procedures must also be examined, while ensuring public participation and effective legal protection.

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The National Hydrogen Council therefore emphasises the urgency of a reliable funding commitment from the German government in order to drive forward the energy transition in the ports.

In the view of the National Hydrogen Council, the National Ports Strategy is a positive step towards strengthening the role of ports for the import of hydrogen and its derivatives. The recognition of their importance and the definition of initial objectives are to be welcomed. However, concrete measures must now be taken, particularly in the form of funding commitments, in order to successfully implement the objectives of the strategy and develop the ports into sustainable hubs for the energy transition.



THE GERMAN NATIONAL HYDROGEN COUNCIL

On 10 June 2020, the German Federal Government adopted the National Hydrogen Strategy and appointed the German National Hydrogen Council. The Council consists of 26 high-ranking experts in the fields of economy, science and civil society. These experts are not part of public administration. The members of the National Hydrogen Council are experts in the fields of production, research and innovation, industrial decarbonisation, transportation and buildings/heating, infrastructure, international partnerships as well as climate and sustainability. The National Hydrogen Council is chaired by former Parliamentary State Secretary Katherina Reiche.

The task of the National Hydrogen Council is to advise and support the State Secretary's Committee for Hydrogen with proposals and recommendations for action in the implementation and further development of Germany's National Hydrogen Strategy.

◆ **Contact:** info@leitstelle-nws.de, www.wasserstoffrat.de/en