

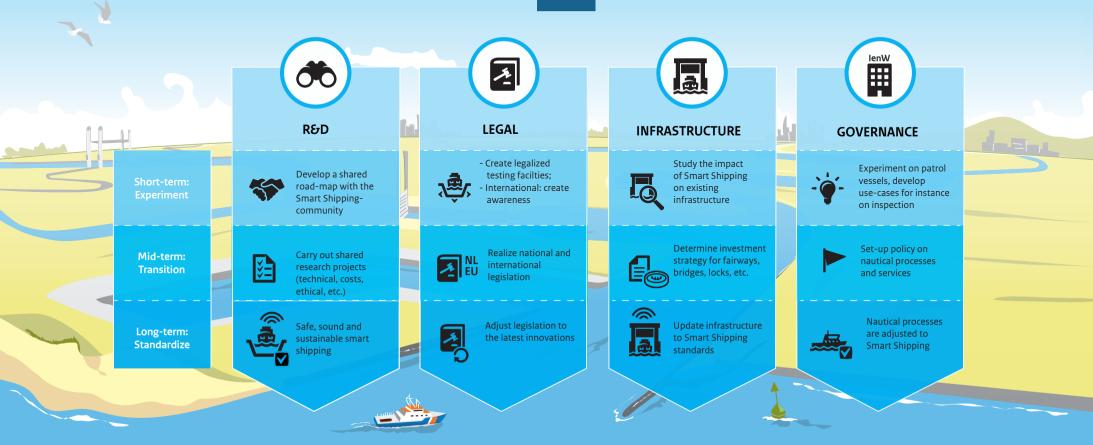
ZThe shipbuilding and shipping sector are innovating rapidly. Pushing factors are the improvement of sensors, connectivity and data aggregation. These trends lead to increasing automation and digitization, also in shipping. As a result, shipping can operate more cost-effectively and safely. These developments are responding to a decreasing and aging workforce of sailing personnel.

The trend development for smart shipping includes all innovations with regard to (accommodating) complex automated sailing at sea and inland waterways, both on-board of ships and on the waterways. The Ministry of Infrastructure and Water Management (lenW) sees a lot of potential in this development in relation to

policy objectives and therefore wants to facilitate the developments. To this end, the Smart Shipping (SMASH) program was set up in 2017.

One of the policy goals of the Ministry of Infrastructure and Water Management is the accessibility of the Netherlands through safe and sustainable water transport. Among other things, the ministry focuses on stimulating innovation to achieve this, because innovation can contribute to the competitive position, the overall safety and sustainability of the shipping industry and maritime logistics. The outcomes are welcome now that the forecast is that the shipping sector will triple until 2050.





Smart Shipping (SMASH) is a ministry-wide program and aims to facilitate innovations in the field of smart shipping. The program contributes to the competitiveness, safety and sustainability of the sector through:

- **R&D**: offer a clear direction for innovation:
- **LEGAL**: Provide legislation and regulations within current legal frameworks and where necessary adjust legislation and regulations to allow innovations to be structurally allowed after successful experimentation;
- INFRASTRUCTURE: prepare the physical environment;;
- OVERHEID: be ready as a waterway manager, enforcer, inspector and licensing authority.

The ambition is to make extensive automated sailing possible. This offers the opportunity to gain experience that can be used in the development of a framework within which smart shipping can also be used structurally in both the Dutch and international waters in the longer term.

The ambition cannot only be achieved by the Ministry of Infrastructure and Water Management. That is why the program accommodates smart shipping developments and provides guidance in a two-way approach aimed at:

- 1. Facilitating smart shipping demands in the industry through further development of our own role as regulator, waterway manager and enforcer, nationally and internationally;
- 2. Provide direction to and participate in collaborations and knowledge exchange with other governments and private parties, including knowledge institutes.

Interested to learn more about SMASH - Smart Shipping? Look at www.smashnederland.nl

In addition to the Ministry of Infrastructure and Water Management, Rijkswaterstaat, the Dutch Coast Guard and the Human Environment and Transport Inspectorate are part of the Smart Shipping program.