

SMART DATA FACTORY FOR LOGISTICS



TNO innovation
for life

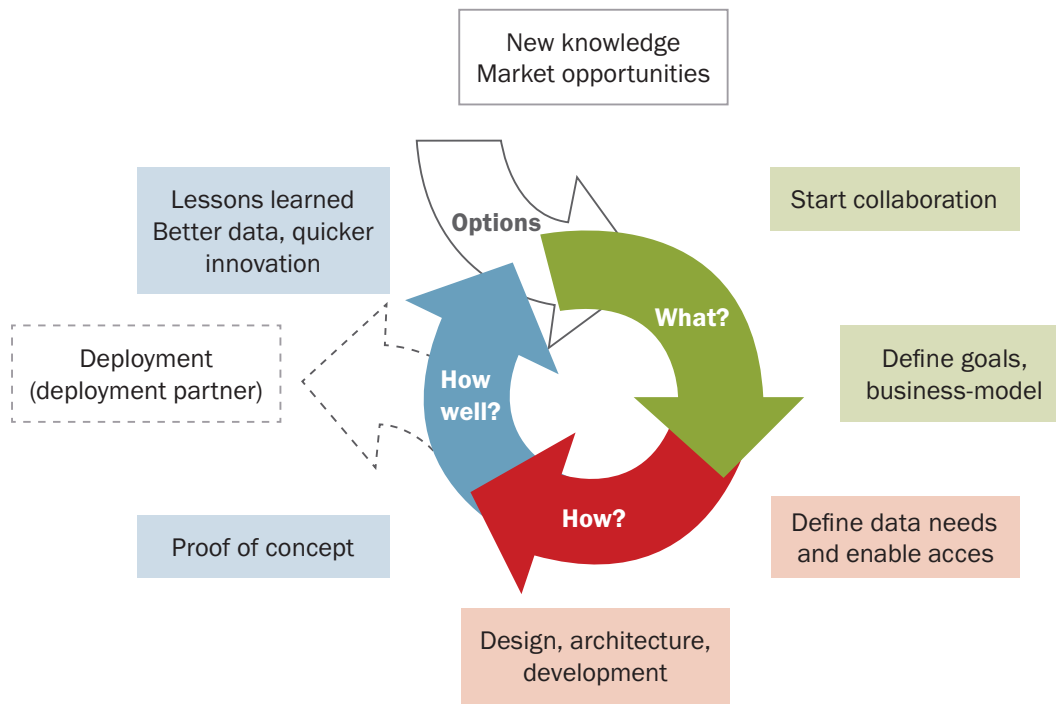
In the logistics sector, the sharing of information continues to be a sensitive subject. The parties in the logistics supply chain obviously look for opportunities for optimization, but at the same time they are reluctant to share information, which is often competitively sensitive, with initiatives like control towers and logistics platforms.

THE SMART DATA FACTORY SPECIFICATION

Together with a number of strategic partners who operate globally, TNO is developing the Smart Data Factory for logistics. The Smart Data Factory specifies how logistical information can be digitally exchanged and used worldwide in a uniform, safe and reliable manner. The Smart Data Factory is not a platform and does not contain a database in which users are asked to share their data. Instead, it is the affiliated parties themselves who decide at the time of asking whether, and under what conditions, they will make the information available or not.

Platforms can be developed by different companies in accordance with the Smart Data Factory specification. The Smart Data Factory specification involves a federation-type method of collaboration and exchange between the various organizations concerned, and that makes the worldwide exchange of logistics information possible to a high level of detail.

The Smart Data Factory-compliant platforms are easy to use for exchanging information with and between existing platforms such as port community systems, national logistics platforms (like NLIP) and national and international government systems.



In addition, information providers can offer their services (open, half-open, and closed) without any difficulty on the Smart Data Factory technology. Examples that come to mind here are AIS providers, road information, weather information, logistics information brokers, etc.

Using so-called smart connectors, platforms and individual logistics parties alike can easily link up to Smart Data Factory-compliant platforms and use pre-existing applications and available information; this is all subject to strict rules of governance so the owner of the applications and information always retains control over how they are used.

The high degree of availability and the ease of becoming affiliated to Smart Data Factory-compliant platforms are expected to lead to a de facto worldwide standard for the exchange of logistics information.

USE CASES

The development of a specification for the exchange of information is obviously not a goal in itself. That is why, in the Smart Data Factory environment, much attention is being focused on the development of use cases for logistics users. Because access to the information is already regulated in the specifications and because a fast-growing number of information sources are becoming affiliated to the Smart Data Factor technology, complex new applications can be developed quickly.

Meanwhile, it is possible to use existing functionalities that have already been developed in the Smart Data Factory. The Smart Data Factory will operate as a flywheel that will serve to accelerate logistical innovations.

Various parties can use the technology of the Smart Data Factory:

- Logistical information providers / information brokers who make information available to the Smart Data Factory, whether on a commercial basis or not;
- Developers and co-developers of logistics applications;
- Knowledge institutes (universities, TNO) that are developing complex new applications and models;
- Strategic partners that develop and manage the specification;
- Deployment parties that operate a Smart Data Factory-compliant platform;
- And of course the commercial logistical parties that use the available functionalities and information for optimizing their processes.

THE SMART DATA FACTORY WILL OPERATE AS A FLYWHEEL

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