



Sharing data effortlessly thanks to iSHARE

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The transport & logistics sector is booming in the Netherlands, and the Dutch government is keen to keep it that way. In fact, as part of its Top Sectors policy, the government has expressed its commitment to continuous improvement and innovation in order to maintain the country's world-leading position. At the same time, it is necessary to reduce carbon emissions and the pressure on the country's infrastructure. The future looks bright, but it is not without threats.

Just some of the challenges to be tackled include rising competition at home and from abroad, pricing pressure, market fragmentation, labour shortages and increasing supply chain complexity. Besides that, the growing need for a finely meshed distribution network is placing ever-greater demands on the internal organization and business approach. The changing market environment is forcing the industry to work (together) more smartly, more efficiently and more effectively. Sharing data with one another enables organizations to make efficiency gains, save costs and reduce their carbon emissions. Data is therefore already shared on a large scale in the logistics sector, which is good news.

Nevertheless, the Neutral Logistics Information Platform (NLIP) – a Logistics Top Sector initiative aimed at promoting data sharing in the sector – firmly believes that the sector could do even more to truly make a difference.



Barriers to more intensive data sharing

There is certainly no lack of data or data-sharing initiatives, but when those initiatives attempt to make data accessible and usable they often come up against two important barriers to more intensive data sharing:

1. Growing number of partial solutions, resulting in costly and timeconsuming integrations

The lack of universal agreements for identity and access management that work for the entire transport and logistics sector means that organizations are forced to draw up tailor-made agreements time and time again. As a result, each partner that they want to share data with must reach – and formalize – agreements about the various aspects of the planned data-sharing activities including ensuring a secure connection, identification and authentication of users and/or machines, and managing the authorization rights of the users and/or machines. Hence each data connection or integration becomes a time-consuming and costly endeavour, sometimes even to such an extent that organizations abandon their attempts to share data altogether.

2. Lack of trust

The use of specific information in the supply chain and automated connections between various IT solutions increasingly gives rise to important questions about data security: 'Who can see my data? Can I trust them? How can I retain control?'

iSHARE is helping the Logistics Top Sector to remove these barriers to further data sharing.





iSHARE, Sharing logistics data in a uniform, simple and controlled manner

iSHARE is a uniform set of agreements or Scheme that enables organizations to give each other access to their data. Since they all work with the same identification, authentication and authorization methods, they do not need to keep making new agreements every time they want to share data.

Together, the Participants in the iSHARE Scheme create a 'network of trust' within which they can share data effortlessly. In this context, 'effortlessly' means that Participants in the Scheme:

- Do not need costly and time-consuming integrations in order to share data;
- 2. Can share data with new and previously unknown partners;
- 3. And maintain full control over their own data at all times. They have the final say about the terms under which their data will be shared, why, with whom and for how long.



How does it work?

iSHARE covers several different types of agreements, namely Functional, Technical, Operational and Legal agreements. Organizations that decide to join the iSHARE Scheme all comply with each of these agreements.

iSHARE Participants have integrated the iSHARE API specifications into their own software and have demonstrated in a test environment that they meet the security requirements as stipulated in the Scheme's Technical agreements. An API is an easy-to-implement and accessible communication solution that only provides access to the data that an iSHARE Participant is willing to share. It does not provide access to the underlying systems.

Besides that, iSHARE Participants have all signed the iSHARE Accession Agreement. The Accession Agreement is a contract between the Scheme Owner and the iSHARE Participant. This contract formalizes the aspects that safeguard the quality and security of the Scheme and the network of trust. After signing the contract, iSHARE Participants are bound to the iSHARE Terms and Conditions of Use. They can legally hold one another to these rules based on so-called 'perfection'.

Within the Scheme, iSHARE Participants are not restricted to sharing data with existing partners only; they can also share data with new and previously unknown organizations, such as with subcontractors of a direct partner or with companies further along the supply chain. They know that these previously unknown partners can be trusted because they have also had to prove that they meet the iSHARE Scheme's strict requirements in order to be accepted into the network of trust.

The iSHARE Scheme Owner manages the Scheme and takes care of screening and accepting new Participants. This organization has been set up by the transport and logistics sector itself. It is independent and transparent, and is not aimed at maximizing profit.



How do data owners maintain control over their own data?

The data owner decides in advance which partners may receive which data, when and for which purpose, and this is formalized. Data is then shared in line with the iSHARE Scheme's identification, authentication and authorization methods.

The data owner can either integrate the iSHARE methods for identification, authentication and authorization into their own software or can outsource the activities to an iSHARE-certified Identity Provider (for identification and authentication) and to an Authorization Registry (for authorization). Identity providers and authorization registries are independent organizations that provide information for the purpose of performing identification, authentication and authorization.

Either the Participant's own software or the Identity Provider uses standardized and widely accepted authentication technology such as OAuth or OpenID Connect to check the identity of the partner requesting the data – either the user or the machine that represents the partner. The Participant's own software or the Authorization Registry then verifies whether the partner is authorized to receive the requested data.

The data owner attaches iSHARE licences to the dataset which determine what the recipient may do with the data. Those licences are legally binding.

This gives data owners full control over their own data at all times: who is allowed to receive their data, what they can do with it and for how long.

In brief

Just one API implementation gives organizations access to a network of partners who 'trust' each other. Within that network partners share data with one another, but only when they want and with the partners they choose.

All iSHARE Participants work in line with the agreements stipulated in the iSHARE Scheme. They use the same secure techniques to identify, authenticate and authorize one another. They meet the Scheme's strict security requirements and comply with the iSHARE Terms of Use. Another important point: at all times, the data owner retains full control over which partners are allowed to receive which data, for which purpose and for how long. iSHARE Participants can legally hold one another to the iSHARE universal set of agreements because they have all committed themselves to uphold the same terms of use.

iSHARE makes data sharing considerably easier, cheaper and safer.



• Are you also interested in sharing data in a simple and controlled manner?

The iSHARE Scheme is now available for everyone in the transport and logistics sector: for organizations of all shapes and sizes, public-sector and privatesector organizations, data providers, data recipients and their software suppliers. The first Participants have already started implementing and using the iSHARE set of uniform agreements.

Keen to know more?

Take a look at the iSHARE 5-step plan on www.ishareworks.org/en/ishare/gettingstarted or send an email to info@iSHAREWorks.org.

By the sector, for the sector

The Functional, Technical, Operational and Legal agreements that together form the iSHARE Scheme are the product of a co-creation process involving more than 20 logistics organizations. They got together in 2017 to develop, test and fine-tune the set of agreements. INNOPAY – a consultancy firm specialized in digital transactions – provided guidance in the co-creation process.

The combined expertise of the co-creation partners has resulted in a practical and broadly applicable set of agreements suitable for the entire sector: for organizations of all shapes and sizes, public-sector and private-sector organizations, data providers, data recipients and their software suppliers.



iSHARE-projectorganisatie

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