



Summary of research outcomes use case “Sharing freight transport data with Insurers”

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Management Summary

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Use of digital waybills (e-CMR) is emerging which enables new products and services within and outside the logistics sector



Paper waybills are essential in logistics but lead to inefficiencies

- CMR waybills are standardised documents used in logistics that state details and instructions relevant for the shipment. The information in this waybill is essential for an efficient logistic chain
- Currently, waybills are mostly paper-based. This requires manual data entry, emails/calls for clarification and physical delivery of documents.
- This leads to inefficiencies and higher costs of trade, as it requires significant effort to gather and process the documents and it is difficult to assess the completeness, correctness and trustworthiness of the data



Digital waybills (e-CMRs) are more efficient, more up-to-date and more reliable

- Digital waybills (e-CMR) are the digital alternative to these paper-based waybills. e-CMRs can be distributed digitally to all parties involved in the supply chain
- Besides a more efficient value chain, the e-CMR allows better decision making. Since data from the e-CMR can be accessed at anytime, stakeholders can monitor operations in real time and make decisions based on these insights
- The e-CMR also improves reliability of the data, as changes in the waybill (e.g. transfer of goods) are monitored and digitally signed

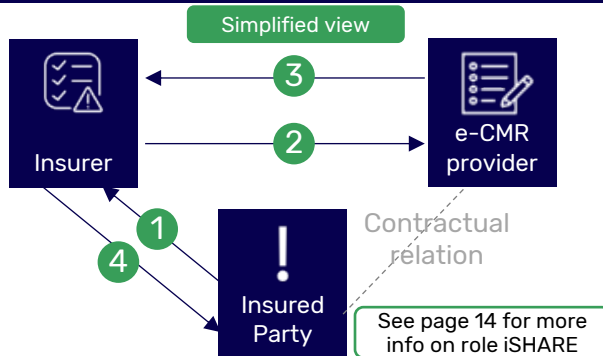


Re-using e-CMR data can enable new products and services

- On top of a more efficient supply chain, e-CMRs can unlock new products and services
- As digital data can be shared and re-used to an unlimited extent, e-CMR data can be shared with organisations other than the core actors in a supply chain, within and outside of the logistics sector
- Re-using this e-CMR data to obtain insights on certain elements of a shipment allows organisations to develop new products and services that could ultimately benefit core actors in the supply chain. Examples are lower insurance premiums and improved emergency response.

In use case, Insured Party authorises Insurer in case of claim to retrieve e-CMR data at e-CMR provider to improve claim handling

Use case interaction model



Steps in process

1. Insured Party (Carrier or Shipper) notifies Insurer on damaged shipment
2. Insurer starts claim handling process by requesting 'shipment data points' in e-CMR-platform
3. e-CMR platform validates access rights of Insurer and provides relevant e-CMR data points of Insured Party to Insurer
4. Insurer informs Insured Party about claim handling

Insured Party can be a Carrier (transporter of the goods) or a Shipper (owner of the goods)

Use case introduction

Explanation of use case:

- In this use case, the Insured Party (Carrier or Shipper) authorises his Insurer to access the digital waybill (e-CMR) of a shipment when the Insured Party issues an insurance claim for that shipment (e.g. because of damage to the shipment).
- Currently, the Insurer uses paper-based waybills when processing the claim for covering the damaged shipment, which are time consuming to receive and process.
- For the Insurer, accessing structured and machine readable data from the e-CMR of the shipment during claim handling enables a more efficient claim handling process, as the data can be processed automatically, without manual input
- The e-CMR data is controlled by the Insured Party and managed by an e-CMR provider. The data concerns at least the Shipper, the Carrier, the receiving party, the number of packages, the weight, and the (visible) condition of the goods.

Added value of use case:

- Improve efficiency of claims handling process for Insurer and Insured Party, as e-CMR data is already available and can simply be accessed and re-used, without any manual data entry or processing required

Parties involved

- iSHARE and Verbond van Verzekeraars (VvV) initiated the use case. iSHARE is a scheme that enables organisations to share data in a uniform, simple, and controlled way, and VvV is an industry association representing more than 95% of Insurers in the Netherlands
- Multiple stakeholders from the relevant domains were involved in the use case through interviews: TransFollow, Collect+Go, SIVI, SUTC, TJIP

See page 12 for more information about involved parties



VERBOND VAN VERZEKERAARS



iSHARE



TransFollow

Collect+Go

SIVI

SUTC

TJIP

Data sharing context is characterised by limited standardisation of e-CMR exchange and Insured Party's need for control of data

Key factors in data sharing context of this use case

Non-exhaustive



Limited standardisation of exchanging and re-using e-CMR data

The data services around e-CMR data (exchange, data model and taxonomy) are not yet standardised. Most e-CMR providers have their own method for exposing e-CMR data and most Insurers have their own specific requirements for how they want to receive data for claims handling. This requires a bespoke implementation for every connection between a specific Insurer and e-CMR provider. Since there are many different Insurers and many different e-CMR providers that need to be able to connect, a bespoke implementation for every connection is very inefficient and costly



Insured Party's need to be in control of e-CMR data while not being involved in the transaction

The Insured Party wants to control who has access to their e-CMR data as the data may contain sensitive information about the contents of a shipment. The e-CMR data is managed by an e-CMR provider appointed by the Insured Party. When e-CMR data is shared with an Insurer by the e-CMR provider, the Insured Party is not directly involved in the transaction but needs to remain in control of the data. However, the Insured Party doesn't necessarily want to approve every single request for sharing e-CMR data. For the Insured Party to remain in control over their e-CMR data without having to approve every single request, a mechanism is needed which enables the Insured Party to authorise third parties (e.g. the Insurer) to retrieve data at the e-CMR provider (under certain circumstances).

Data sharing context

- Every data sharing use case has its own unique data sharing context. This context is determined by factors such as the nature of the data that is shared, the actors that are involved, who controls the data, et cetera.
- This data sharing context is very relevant, as it influences the requirements for the use case design

iSHARE offers a mechanism for identification, authentication and authorisation which enable the Insured Party to control their data

Control of the Insured Party over e-CMR data while not being involved in the transaction results in challenges for the Insurer and e-CMR provider

Insured Party

The Insured Party (Carrier or Shipper) wants to remain in control over their data as it may contain commercial sensitive information without being involved in every transaction. It wants to authorise others (the insurer) to access the data under specific conditions while keeping its e-CMR data safe from unauthorised access

Insurer

Different Insured Parties use different e-CMR providers, and every e-CMR provider is free to choose its own method for identification, authentication and authorisation (IAA). Therefore, Insurers need to support different IAA methods which increases cost

E-CMR provider

The e-CMR provider is responsible for only sharing the e-CMR data with the authorised parties. Maintaining a register of these authorisations is a time consuming process and creates responsibilities and risks for the e-CMR provider



iSHARE can provide a solution for all parties involved in the use case

iSHARE offers a standardised way of identification, authentication and authorisation within an ecosystem

Using iSHARE:

- Insured Party remains in control over their e-CMR data by setting specific conditions for data sharing without having to approve every single transaction
- Insurers only need one standardised method for IAA
- e-CMR providers reduce costs and risks as they don't maintain the authorisation register themselves and authorised parties are easily recognised



More information on iSHARE can be found on page 14 in the appendix or on <https://www.ishareworks.org/>

Insurers see potential for using e-CMR data for claim handling and improved risk management, but it is too early to take action

Insurer view on potential value creation from re-using e-CMR data



Value of e-CMR data in claim handling is limited as number of claims with e-CMR data are very limited

Current claim handling process is based on data shared by means of attachments (e.g. pdf files, photos) and manual actions. As a result, the process is time consuming and there is a lack of consistency in the quality of the data provided. With e-CMR data, the Insurer receives the data in a structured and machine readable way and can rely on the authenticity of the data.

Insurers see the potential for using e-CMR data for improving claim handling. However, as claims are issued only for a small percentage of the shipments and due to the low adoption of e-CMR among Insured Parties (Carriers and Shippers), the investments of implementation do not yet outweigh the cost for Insurers. The adoption of e-CMR among Insured Parties is still low as e-CMR is relatively new and still in diverging phase.



Improved risk management based on e-CMR data could lead to competitive advantages for Insurers

When insuring shipments, Insurers use data to estimate risk profiles for the Insured Party and shipment. Currently, these risks are based on bulk data, resulting in insurance policies that are offered for a bulk of shipments, for example covering all shipments for next year independent of their destination, cargo or planning. An Insurer with data from the e-CMR could assess individual risks based on individual shipment data and offer insurance premiums tailored to the shipment, which could ultimately reduce costs for Insured Party.

According to Insurers involved in the use case, improving risk management allows them to offer premiums tailored for the shipment, providing the Insurer with an improved proposition

Although insurers see value potential of gaining access to e-CMR data, they have not taken action to set concrete steps towards implementation yet. Insurers want to stay informed on developments of e-CMR adoption and standardisation and will take action when the benefits outweigh the investment costs for implementation.

Increased adoption of e-CMR and standardisation of its exchange would make this use case more attractive for Insurers

Increased adoption of e-CMR by Insured Party is needed before the benefits outweigh the investment costs for implementation

Adoption of e-CMR data by Insured Parties (Carriers and Shippers) is still low, for majority of shipments e-CMR data is not yet available. For Insurers, this means that most insured shipments don't have e-CMR data available. Due to low number of shipments with e-CMR data, the investment costs for implementation don't outweigh the benefits

Common standard for e-CMR exchange needed to reduce set-up costs for insurers

The exchange and re-use of e-CMR data is not yet standardised, which results in inefficient and costly bespoke implementations. Agreements on a standard for exchanging e-CMR data would enable insurers and e-CMR providers to share e-CMR data with all relevant actors through a single implementation. This reduces the set-up costs, as no bespoke agreements are needed with multiple providers, making the use of e-CMR data more attractive to insurers.

Role for use case participants SIVI and SUTC

SIVI and SUTC, industry data standard organisations of respectively the insurance sector and logistic sector, could play a role in creating a common standard for e-CMR exchange. SIVI could map different e-CMR data models to their "All Finance Standard" which is used by Dutch Insurers for several data streams. SUTC is already involved in harmonising e-CMR data models for Europe in collaboration with for example the Ministry of Infrastructure and Water Management.



Higher adoption of e-CMR by Insured Parties and a common standard for e-CMR exchange would make this use case more attractive for Insurers

Use case will become more attractive for Insurers in coming years as significant increase in adoption of e-CMR is expected



New regulation making e-CMR acceptance mandatory for national public authorities increases Insured Party adoption

Adoption of the e-CMR is expected to increase in coming years due to recently passed European regulation for the use of electronic freight transport information (eFTI) ¹. This regulation makes the acceptance of e-CMRs mandatory for national public authorities (e.g. customs, supervisory authorities) of European member states by the end of 2025.



COVID-19 driving the demand for paperless interactions, increasing the adoption of digital processes in logistics

The COVID-19 pandemic has challenged the logistic sector, as supply chains were under pressure while physical contact between people had to be avoided. These challenges drive the need for paperless and touchless transport. Adopting e-CMR instead of the paper-based waybills could facilitate this need.

New regulation and COVID-19 is expected to drive adoption of e-CMR among Insured Parties, making the use of e-CMR more attractive for Insurers

Source: ¹<https://european-accreditation.org/new-regulation-eu-2020-1056-on-electronic-freight-transport-information-has-been-published/>

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This use case is initiated by iSHARE and Verbond van Verzekeraars

Use case initiators

- iSHARE and Verbond van Verzekeraars (VvV) initiated the use case
- iSHARE is a uniform set of agreements for identification, authentication and authorisation that enable organisations to share data in a controlled way
- Verbond van Verzekeraars is an industry association representing more than 95% of Insurers in the Netherlands



Involved parties in the use case

- Stakeholders from insurers, e-CMR providers and logistic sector were involved in the use case through participation in workshops and interviews
- From the logistic sector, SUTC was involved as an industry standard organisation focussed on IT standards
- From the e-CMR providers, TransFollow and Collect + Go were involved
- From insurers, SIVI (industry standard organisation), TJIP (platform software for insurers) and multiple insurers were involved



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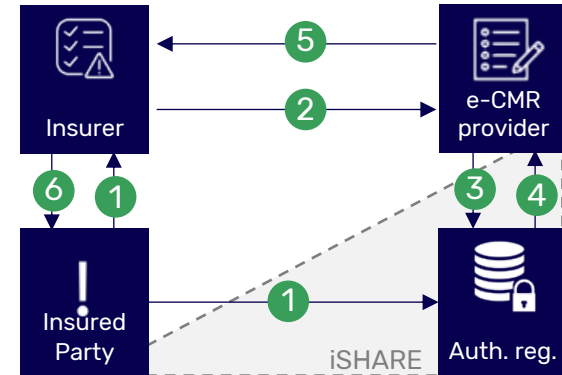
iSHARE in a nutshell: a scheme that enables many-to-many controlled data sharing

An introduction to iSHARE¹

- iSHARE is a standard and legal framework for sharing business data under control of the entitled party. For this, iSHARE offers a standardised and reusable way of identifying, authenticating and authorizing entities to share data with, taking away the need for tailor-made connections.
- iSHARE allows parties to be extremely specific about what data whom can request, and about who can do what with data once it is received – e.g., ‘only use it for a month’, ‘do not re-share’, ‘not for commercial use’ etc.
- To become a participant, an organisation has to implement the technical standards and sign an agreement with the iSHARE Foundation to comply to the iSHARE Terms of Use and therefore the Functional, Technical, Operational and Legal agreements. Since all participants in the network sign these multilateral agreements, this creates a network of trust among them
- iSHARE was co-created by the Dutch Logistics sector
- iSHARE is live and operational since 2018

Source: ¹<https://www.ishareworks.org/en/>

Using iSHARE authorisation registries in this use case



Steps in process

1. Insured Party (Carrier or Shipper) registers access rights of Insurer in an authorisation registry (auth. reg.) + Insured Party notifies Insurer on damaged shipment
2. Insurer starts claim handling process by requesting access to ‘shipment data points’ from e-CMR provider
3. e-CMR provider requests delegation evidence (access rights of Insurer) in authorisation registry
4. Authorisation registry validates delegation evidence of Insurer to access ‘shipment data points’ in e-CMR
5. e-CMR platform provides e-CMR data points of Insured Party to Insurer
6. Insurer informs Insured Party about claim handling