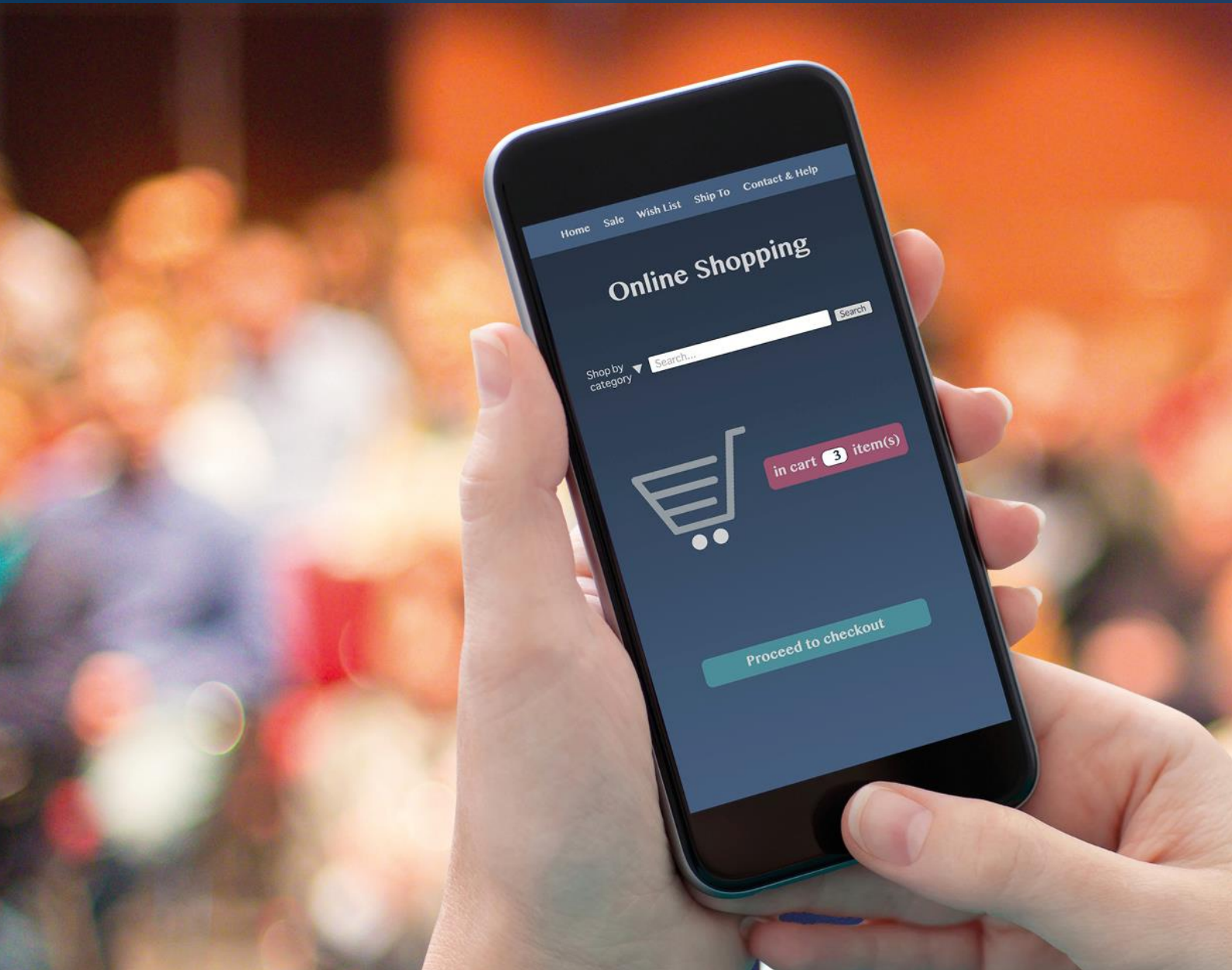


# JOINT BLUEPAPER

## The Business Case for the Harmonised Parcel Label

June 2017



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## SUMMARY

In 2016-2017, Ecommerce Europe chaired a working group within the European Committee for Standardization (CEN) to deliver a harmonised standard for parcel labels. At the same time, a Dutch expert group representing the various stakeholders in the delivery network explored the business case for the implementation of this Harmonised Parcel Label. This report highlights the group's findings:

- opportunities for each of the stakeholders,
- specifications of the label,
- useful background information and
- answers to key questions to help various stakeholders begin implementation.

A Harmonised Parcel Label would help online retailers improve the efficiency of their (cross-border) delivery and return process and meet the growing expectations of consumers. Currently, retailers outsource the process to a third party, in most cases a carrier who provides end-to-end delivery and who uses their own barcode to identify parcels. The Serial Shipping Container Code (SSCC) on the Harmonised Parcel Label would enable all (potential) partners in the delivery network to use one worldwide unique parcel ID system to link their relevant available data to the physical parcel, thus avoiding relabeling and opening new opportunities for better delivery services at a lower cost.

## SITUATIONAL ANALYSIS

E-commerce is fundamentally changing postal and parcel markets. Global e-commerce streams have revolutionized shopping, but the current parcel streams are ill-fitted to accommodate these changes. Almost one out of five EU citizens identifies cheaper delivery prices as the main improvement that would encourage more online shopping from sellers located in other EU Member States. Similarly, more than one third of online merchants consider higher costs of cross-border delivery compared to domestic delivery as an obstacle in online cross-border trade.

Research shows:

- 40% of cross-border deliveries lack traceability (Ecommerce Europe)
- 25% percent of millennials will not buy with online retailer with limited delivery options (research eBay)
- 2 out of 3 abandoned shopping baskets are due to concerns about delivery time options and associated costs (research Royal Mail)
- High cost of cross-border delivery keeps customers from buying cross-border (research Ecommerce Europe)

Inefficient cross-border delivery is consistently in the top three of biggest barriers for online merchants to sell in another EU Member State, as Ecommerce Europe's Cross-Border E-commerce Barometer 2016 shows: logistics and distribution represent a difficult barrier to tackle for 33% of the companies selling abroad. Even though the situation has slightly improved compared to Ecommerce Europe's figures for 2015 (44%), online merchants still face major issues. As mentioned above, in an Ecommerce Europe survey performed in 2015 and repeated in 2016<sup>1</sup>, online shops stated that they experience obstacles when shipping parcels to consumers in other countries. They frequently refer to:

- a lack of information,
- limited choice of carriers that can deliver end-to-end,
- significantly higher prices compared to the domestic delivery prices, and
- long delivery times.

Concerning track-and-trace, European postal services commonly relabel parcels when they cross borders, converting them from 'international' into 'domestic' ones. As a result, track-and-trace service often stops at the border. Currently, only approximately 60% of cross-border postal parcels are traceable. The remaining 40% lose their traceability due to relabelling and a lack of cross referencing between track-and-trace systems<sup>2</sup>.

Digitalisation is changing current delivery value chains and has a direct impact on costs and business models. Online commerce is shifting the focus of delivery to the needs and demands of the modern

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<sup>1</sup> Source: <https://www.ecommerce-europe.eu/publication/cross-border-e-commerce-barometer-2016/>

<sup>2</sup> Figures come from various sources, specifically from the Universal Postal Union (UPU) documents and the International Post Corporation (IPC) projects, and are only accessible for Members of the UPU's Consultative Committee and Observer of the UPU CA/POC. The Universal Postal Union, governing the world-wide postal network, and IPC, a corporation safeguarding the interests of the leading postal administrations, addressed this challenge in the last UPU cycle (2012 - 2016).

consumer. Consumers want quality, speed, transparency and convenience. The demand for quality leads to companies offering measurable performance, with customer service placed firmly at the heart of the business model. The demand for speed leads to customer retention via same-day or even immediate delivery options, financed via a flat fee model. The demand for transparency leads beyond traceability to proactive messaging and real-time adjustments per recipients' preferences. The demand for convenience leads to easy-to-use return solutions plus scheduled drop-off and alternative delivery, pick-up and recycling options.

These demands call for a data-driven delivery service industry with ease of access to systems that online merchants are looking for. The e-commerce sector has already internalised these principles. Now it is time for the delivery sector to adapt its business models and infrastructure as well. The distinction between 'courier', 'express' and 'postal' has become irrelevant, and borders have become obsolete. Interoperability between operators in the delivery process at the national and international level will become a key asset and requires standardisation: standardisation of parcel identification, label and exchanged data to manage the delivery process. The Harmonised Parcel Label could be the first step toward such interoperability and would be a building block for future delivery networks.

## RESEARCH

A European Harmonized Parcel Label will help answer the future demands of all stakeholders in the delivery service industry. This includes customers, manufacturers, retailers, integrators e-fulfilment companies, carriers, parcel collection/return points and the government. To better understand how we can achieve a successful implementation of a Harmonised Parcel Label, we look at several key topics:

- Stakeholders' view
- Threats and Opportunities
- Existing Initiatives in Europe
- Pre-conditions for interoperability
- Appearance of label

A group of experts from stakeholders within the Dutch delivery market explored the opportunities and threats for each kind of stakeholder in search of the business case for the harmonised parcel label. This was done in the context of the research program Shopping Tomorrow of the Dutch online retail association Thuiswinkel.org and was hosted by standardisation organisation GS1.

Additional input was supplied by Working Group 3 of Technical Committee 331 of the European Committee for Standardization (CEN). In this working group, the technical specification of the Harmonised Parcel Label was discussed and agreed upon. The group was chaired by Ecommerce Europe and mandated by the European commission. One of their tasks was to establish how a parcel can be identified. Currently most of the parcels are identified by a barcode issued by the carrier. National Postal operators who are member of the Universal Postal Union (UPU) can assign S10 barcodes for international traceability within the UPU network. Online merchants wishing to use operators outside the UPU domain may use the worldwide unique Serial Shipping Container Code issued by GS1

organisations.

In 2016, e-commerce turnover worldwide grew by almost 20%. International competition is gaining ground and Europe has lost its number-two position, now ranking behind Asia and the United States. To strengthen the position of online retailers and service providers, the EU is seeking to create a Digital Single Market. This would reduce barriers and make it much easier for online shops to operate across borders.

The Netherlands is lagging behind in cross-border sales and international competition is “snapping” at the country’s “heels”. There is a great deal of scope for international expansion. The aim to provide optimal deliveries for customers is targeted at both Dutch and foreign consumers.

The Dutch multi-stakeholder delivery expert group:

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At the end of 2016, the Dutch multi-stakeholder delivery expert group within the Shopping Tomorrow research program of Thuiswinkel.org noted a growing need for (cross-border) interoperability between online and other retailers and various logistics service providers. In recent years, service providers and online shops have innovated of their own accord. After all, there is a need for distilling and generating information to improve the predictability of deliveries and related services. This has led to proprietary solutions with a limited degree of interoperability. The improved logistics services for online shops also had a downside, however - a vendor lock-in. In addition, only a very limited number of logistics service providers have a network that covers the whole of Europe, and that impedes international growth. Therefore, labelling, barcoding, event and status notices, and data exchange in relation to consignments are needed. For online retailers and consumers, this leads to the following challenges:

- Data quality of track and trace information for parcels involving different European logistics service providers.

- Retailers and shippers will generally have to make additional investments in 'opening up' the desired options. A new standard will require investment, but does resolve the problem of the lock-in and prevents costs when changing service provider.
- Retailers would like to innovate more, and more quickly, to be able to meet the wishes of their customers in relation to delivery options and returns.
- It is almost impossible for carriers to quickly take over parcel flows from each other in the event of an emergency.
- The options available to consumers for presenting a parcel for return are part of what the carrier offers. However, for various reasons (including technical issues) these options are limited.
- The introduction of urban distribution concepts, in line with smart city concepts, is being hindered. Several stakeholders are involved in this, so interoperability is needed.
- Automated receipt of goods in commercial e-commerce environments is being impeded by a lack of standardization.

Moreover, it is expected that internationalisation will result in a greater number of partners in the delivery chain, fuelling the need for even greater interoperability. The Dutch Expert group is examining issues such as what role standards will play in the international delivery market and how various delivery network partners (e.g. retailers, fulfilment companies, carriers, drop-off/pick-up points and software suppliers) view this matter. The introduction of the Harmonised Parcel Label and the associated data exchange protocol is an important step for:

- Strengthening the position of online retailers in the Netherlands and Europe;
- Making possible the efficient transfer of parcels between carriers and serving consumers as optimally as possible through:
  - Regulated sustainable urban distribution;
  - Cross-border traffic;
  - Adding certain desired services that do not form part of the primary carrier's core business;
  - Being able to exchange management and status information about parcels in an efficient manner;
- Fulfilling the needs of consumers to be in control over how packages are to be returned.

The fact that the Harmonised Parcel Label has not been very high on the agenda until now appears to be due to retailers adapting to the national systems operated by the carriers with dense networks in local markets. To remain sufficiently attractive to consumers, businesses must look beyond their national boundaries, while obstacles to cross-border and other transport of parcels should be eliminated as much as possible. The Harmonised Parcel Label and a data exchange protocol would be helpful here, and it is an initial building block. Introducing such a label is therefore one of the priorities for Ecommerce Europe, and its implementation should also be a priority for businesses, according to the European umbrella organisations for online shops. The expert group recognises that having the Harmonised Parcel Label would enable companies to exploit important opportunities, but also that such an innovation would involve investments in ICT.

*'We support the developments in harmonised parcel labels because it promotes flexibility and therefore creates opportunities for responding more quickly to new market initiatives. It also offers opportunities for giving greater control to consumers as far as delivery services are concerned.'*  
(wehkamp.nl)

## **1. Stakeholders' view**

If all operators in the delivery service industry would be interoperable, one could create flexible, efficient delivery networks that could tailor services to each individual need.

### **The consumer**

Consumers would like to:

- receive a parcel at a time and place of their own choosing, and be able to make changes to this during the delivery process;
- be able follow all the status information about their parcels with one application;
- be able to return parcels in ways of their own choosing that are convenient to them, without having to think about technical matters like barcodes.

If a package is transferred between carriers, the consumer may be concerned that:

- an unknown postal delivery service will be bringing their parcel to them (but they can also opt for a regular delivery service);
- multiple carriers know that they are to receive a parcel (privacy);
- a parcel will not be arriving on schedule. More links mean more risks.

### **The online retailer**

Online retailers would like to:

- have an overview of parcel flows, even if the parcels are being handled by parties other than their primary carrier. That way, they are always able to give consumers up-to-date status information;
- be able to make it possible for customers to select alternative return options, such as the nearby return point around the corner, rather than that of the primary carrier;
- be able to carry out cross-border deliveries at reasonable rates, and in the process, select the partners for the various sections of the journey;
- be able to record the status and other information about his parcel flows in one way, rather than constantly having to make conversions between datasets and the data formats of carriers;
- prevent information from becoming less accessible due to new labels being attached that bear different barcodes from other carriers who are involved in the cross-border delivery status;
- reduce to a minimum the number of stages in the delivery process that have no value for the consumer (e.g. additional barcode labels attached after initial shipping);
- be able to add new services easily to his delivery service, even if they do not form part of the service offered by the primary service provider;

- be able to change suppliers depending on the price-performance ratio, without having to take switching costs into account;
- be able to offer his business customers the option of automated (and 80% quicker) receipt of goods.

To realise these benefits, the online retailer should implement the harmonised label including the related data exchange and process agreements, agreements on how the data should be handled, and of course, commercial agreements. Businesses understand that suppliers must agree on standards in relation to the information provided and on ways for making services and information accessible. This will still have a major impact on those businesses, because it is not just ICT that will be affected, but the processes as well.

*'I associate uniform labelling with simplicity, convenience, and transparency, for our customers and for BCC alike. We would like to be able to offer new services quickly so that we can meet the expectations of our customers. This could be achieved by linking up more easily with other service providers.'* (BCC)

### **The manufacturer/supplier**

Manufacturers/suppliers who carry out drop shipping operate at that moment as online retailers and see similar opportunities as online retailers do. A large electronics manufacturer with a limited number of European distribution centres reported that selecting the identification number of a particular carrier for one parcel delayed the entire parcel flow by several seconds. They would have preferred using SSCC codes and then sorting the parcels by carrier. There would also be less print software and fewer interfaces for him to maintain.

### **The fulfilment partner**

Although fulfilment partners were not present during the expert group discussions, it can be assumed that they see the same opportunities as their customers, the drop shipping suppliers, and the online retailers. Online retailers also saw opportunities, in particular for fulfilment partners to develop cross-border partnerships.

### **The parcel integrator/multi-carrier solutions**

Parcel integrators are developing SaaS solutions that online retailers can use to integrate new carriers and services quickly and flexibly. In cases where the number of services is increasing, an online shop can implement such a solution to shorten the time-to-market for each new delivery service or carrier. These systems also offer integrated track & trace solutions to which the order statuses can be linked from the various carriers in a way that is easy to understand. The correct address label can be created in the back-offices of the online retailers using the package integrator, for each affiliated carrier.

This means that parcel integrators partly fulfil the intended role of a harmonised parcel label. If such a label were to be introduced, then their added value would be reduced when creating address labels. However, there is still a role for integrators in matching the correct carriers and delivery options to the content of orders, and how they are presented in the online shop. In practice, integrators' solutions are used among medium-sized to large online retailers. The largest of them often build their own systems,

while small retailers do not have the volumes that would justify an investment. Small online shops also have the alternative of outsourcing their logistics to a fulfilment partner or online marketplace.

*'As a delivery management platform, Paazl recognises the values of simple access to multiple parcel carriers. Analogous to payment service providers, however, the desire to achieve standardisation would have to be fulfilled through innovation in the software market rather than through an imposed standard.'*  
(Paazl)

### **The carrier**

The carrier tries to fulfil every service for its customers, even though they understand that this is not always possible. In cases where it is difficult for them to fulfil a service, they enter into cross-border (and other) partnerships. National postal companies, which generally have a dominant position in their local parcel market, primarily find their partners among sister companies who are member of the Universal Postal Union (UPU). Given their existing infrastructure, which is based on internal identification systems or UPU S10 barcodes, a transition to a harmonised label which can be used outside the UPU domain may not be worthwhile in the short term without explicit demand from the market.

An additional effect of using a harmonised parcel label could be that, from an ICT point of view, self-driving sole traders could transport goods for multiple carriers and become less dependent on the ICT infrastructure of their carriers.

Nonetheless, these carriers would also accept the benefits of the Harmonised Parcel Label in the long run. This view is perhaps strengthened by the fact that smaller carriers are better able to implement innovations, and to do so more quickly. At the same time, they are sensitive to the demand among retailers for innovation.

The value of a harmonised label comes into its own in situations where a parcel must be transferred among logistic service providers. This is currently often the case for international consignments. In general, deliverers of parcels drive for one distributor and urban distribution could become an exception to this.

### **Parcel collection points**

Parcel collection points, such as post offices, supermarkets, tobacco shops and book stores, are keen to play an important role in absorbing some of the pressure that the increase in parcel flows is imposing on urban and other infrastructures. Against that background, they would like to be able to help all consumers and online retailers and expand their range of services for these users. The use of the Harmonised Parcel Label would remove technical barriers and thereby make this possible. They, too, will have to make a one-off modification to their systems to be able to process the Serial Shipping Container Code, and they will have to exercise care in how they deal with their customers' details.

Having a harmonised parcel label is one of the building blocks, but it raises other questions as well. These include how the flow of parcels should be organised and how to deal with handling and additional costs. Is a type of roaming rate needed here?

## The government

The EU is aiming to create a Digital Single Market and, in that context, would like to see the market operating more actively in cross-border traffic. To that end, it is running the [COSME project](https://ec.europa.eu/easme/en/cosme) (<https://ec.europa.eu/easme/en/cosme>), whereby the services offered by carriers are made more transparent, and supporting the standardisation work being carried out by the CEN regarding the Harmonised Parcel Label.

At the local and municipal levels, harmonised labels help make parcel transfers to urban distribution carriers possible. This is especially true if it concerns a mix of commercial and private recipients of parcels. For commercial recipients, the label can eliminate technical barriers of receiving parcels from different carriers.

The European Commission has calculated that countries in the EU could earn €415 billion once the digital internal market has been completed.

*'The ambition of almost every town and city is to make logistics more efficient and 'cleaner'. Most of the problems lie in the small-volume flows and the e-commerce orders, which are experiencing enormous growth. Bundling these small-volume flows has a positive effect on air quality and on easing traffic congestion. (...) This can be achieved by working with an ICT solution that uses uniform identification of parcels and pallets.'* (Binnenstadservice - sustainable urban logistics network in the Netherlands)









*'Bubblepost makes deliveries by bicycle in urban areas, and we have noted a link between larger flows (from large online shops, for example) and our systems, which are integrated from A to Z. However, we do have many other flows. The systems here are not equipped with standard links (like API), so integration is becoming custom-made as a result. This is the case in relation to B2B deliveries (such as wholesalers and refrigerated transport) and smaller stakeholders. These flows therefore swallow up a great deal of planning capacity (around 80%) and make collaboration and upscaling collaboration more difficult. Standardisation would more or less solve this.'* (Bubblepost)

## 2. Opportunities and threats

The various motives are shown below in the form of a diagram:

 Consumer	 Manufacturer	 Online retailer	 e-Fulfilment company
 Parcel integrator	 Carrier	 Parcel collection / returns point	 Government

<b>Opportunities</b>								
Better cross-border collaboration								
Full supply chain visibility								
Ease of returning consignments								
Improved service level								
Greater efficiency in delivery process								
Integration of independent stakeholders/drivers								
Fewer technical obstacles to working for multiple carriers								
Greater reliability								
Interoperability (no relabelling)								
Consumers want to be in control of their deliveries								
One app for the status of all your parcels								
Greater competition								

Threats								
Data is shared with multiple stakeholders	■		■					
The harmonised label must be implemented		■	■	■	■	■	■	
A different delivery service provider at the door	■							
Greater competition for national postal companies								■
Greater complexity if you work for multiple carriers						■		
Less IT lock-in, more competition					■			

### 3. Existing initiatives in Europe

In the Netherlands, there are many initiatives that are strengthening the sense of urgency to start using harmonised parcel labels. The choice of a common parcel identifier is key here. For example, online and offline retailers throughout Europe and elsewhere are asking that despatch units (pallets, boxes) be given a Serial Shipping Container Code (SSCC). This would enable them to automate their goods receipt processes considerably. A retailer like Amazon states that the SSCC is a preferred identifier for despatch units. The demand among retailers comes in the wake of all manufacturers in the Dutch food products sector supplying their products to all supermarkets with SSCCs.

Various initiatives are currently underway in Europe that are intended to bring about the use of a harmonised parcel label.

#### Scandinavia

In Norway, Sweden, and Denmark, shippers and parcel carriers held discussions in the 1990s to agree a logistical harmonised label for all despatch units. An important element of this label was the unique worldwide identification of the despatch unit, to which every stakeholder involved in the delivery process could link its own information and exchange it with the next link in the chain. It was decided that the SSCC would be used. It is recognised internationally within ISO as the licence plate for despatch units. The SSCC is assigned by the shipper and can be attached to the parcel before a carrier is selected. The recipients of the parcel can be informed at that point by the shipper and prepare for the automated receipt of the parcel. Choosing a harmonised parcel label with an SSCC in Scandinavia quickly led to the development of software with which businesses could manage their flow of consignments. Around 95% of despatch units in Scandinavia currently bear a harmonised label with an SSCC.

## **Germany and Poland**

In 2015, the German federation of Courier, Express and Postal Operators, BdKEP, agreed to use the SSCC as the reference code on their parcel labels. The SSCC appears as the bottommost barcode on their labels and makes it possible to transfer parcels between carriers without the need to read each other's barcodes. Such a transfer may be necessary if a carrier is unable to meet his obligations due to unexpected circumstances. Because the SSCC may be used in combination with other barcodes, the carrier does not have to modify its own systems immediately, but can instead wait until it is convenient to do so. Until then, new labels can be made with their own barcode, based on the information that comes with the SSCC. In Poland, the SSCC has been in use since 2005.

## **United Kingdom**

Development of a harmonised label has also been started in the United Kingdom. The starting point of the standardisation activities is to facilitate a customer-friendly system by which goods can be returned. By using SSCC, online retailers would like to enable their customers to return their parcel at as many points as possible without having to worry about what barcode they should attach to the parcel. Apart from providing this improved service, the retailers would like to use it to gain a clearer picture of which parcels are currently in the return flows.

## **Austria**

In Austria, the SSCC is used to give parcels a unique identity. Here, online retailers and carriers have defined a standard data set for registering parcels that are to be transported.

<https://www.gs1.at/nc/downloads-services/downloads/eancomr-gs1-xml-nachrichtenprofile.html>

## **Universal Postal Union**

National postal companies in the Universal Postal Union (UPU) have reached mutual agreements on the labelling of parcels for traceable international delivery scenarios. This involves the use of an S10 identification number. The number is unique within the UPU. Only national postal companies may be members of the UPU. Important players like UPS and FedEx are not members, and neither are independent locker services nor initiatives like Uber.

## **CEN**

The European Committee for Standardization, CEN (footnote: in Technical Committee 331 working group 3) is responsible for the technical specifications of the Harmonised Parcel Label. Because parcels may be transferred to other logistics stakeholders not covered by the Universal Postal Union (UPU), they have chosen to extend the UPU parcel label with a Serial Shipping Container Code (SSCC). This SSCC is a unique worldwide identification of the despatch unit, to which every stakeholder involved in the delivery process can link its own information and exchange it with the next link in the chain. Many stakeholders, including retailers, are then able to offer relevant services to consumers based on this information.

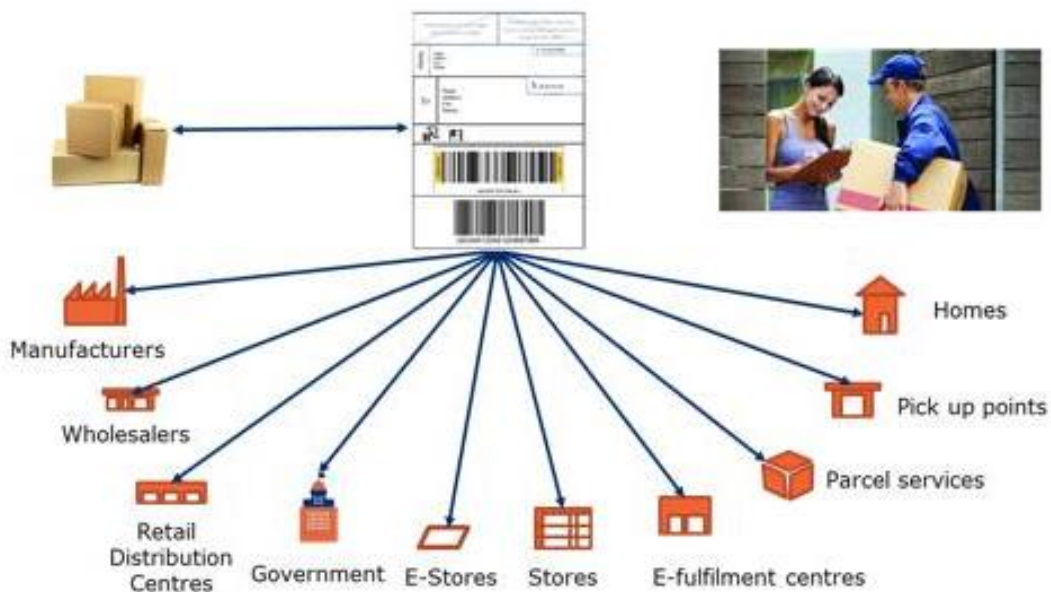
The establishment of the CEN standard did not entail any direct involvement of the Dutch expert group.

## 4. Preconditions for interoperability

### Interoperability and data sharing

The Harmonised Parcel Label alone will not bring about interoperability, but it is an important building block. To organise interoperability among supply chain partners, it must be possible to link the transport administration and management systems with physical parcel flows. To do this, supply chain partners must make agreements on:

- how to identify the parcel. This should be done in the same way worldwide, as it forms the heart of the administration process.
- how to read the parcel identifier automatically - via barcode technology or an RFID chip.



Agreements should be made concerning the data stakeholders want to exchange among themselves about the parcel and its content. The agreements cover:

- which data attributes, their format and possible values. Examples include the data needed for registering a parcel with a carrier, or for stating the status (progress of delivery / return) of a parcel. This standardisation topic is to be reviewed by CEN in 2017 under a mandate of the European Commission (M548/2016). Here, too, Ecommerce Europe and GS1 provided input to achieve an applicable standard that is as wide ranging as possible.
- How should stakeholders be identified in the process? Why exchange addresses every time when you could have a unique worldwide number?

In addition to data standards, businesses should also make agreements on how data is to be exchanged. Will this be bilateral, via a central data hub, or via standardised API calls? And under what preconditions will this take place? Who will have access to which data, and how do we protect the privacy of consumers, for example? Currently, this is established in bilateral contracts. Standardised contract modules are a possible option for the future.

*'It is essential to have the correct data for deliveries and returns in line with the wishes of consumers. Logistics are, after all, data-driven and will quickly migrate to real-time optimisation of the logistics chain. The standardisation of API calls between every actor and device (Internet of Things) in the logistics chain is a requirement if real-time optimisation is to be achieved.'* (TransFollow)

Finally, agreements would need to be made about the service itself, but this would likely be a bilateral agreement, rather than a standard.

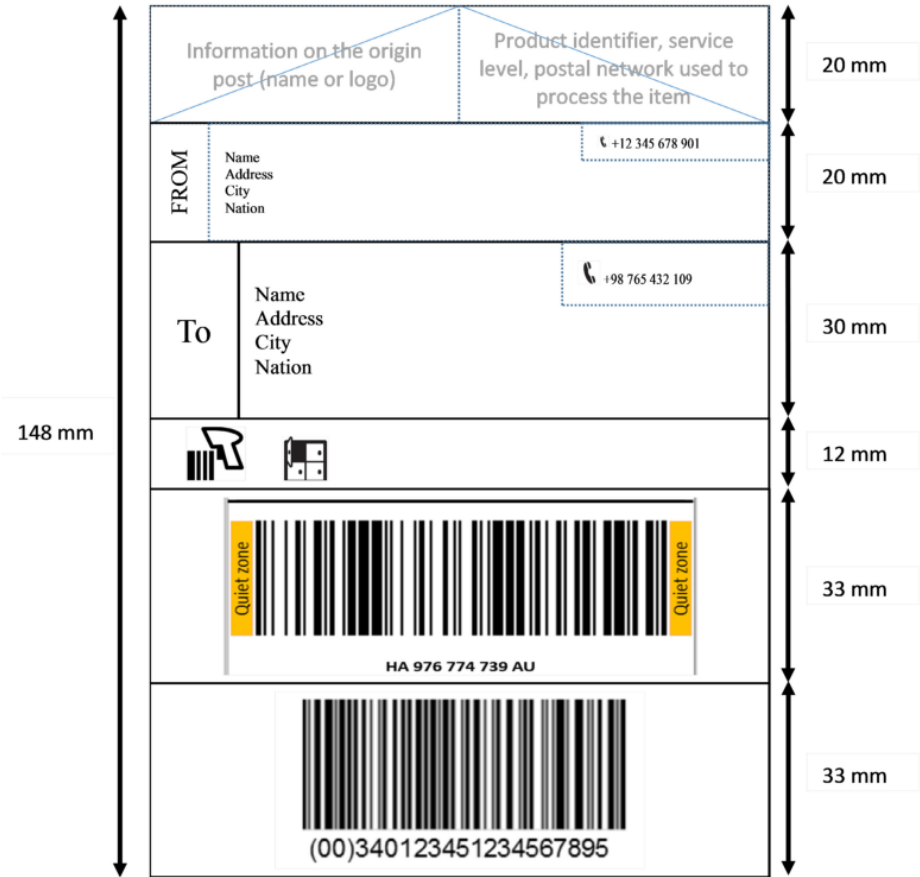
The diagram below shows several existing GS1, Universal Postal Union (UPU) and International Road Transport Union standards in relation to parcel delivery.

	<b>GS1</b>	<b>UPU</b>	<b>IRU</b>
The identification of the parcel	Serial Shipping Container Code (SSCC)	S10 barcode	
How the identification can be read	GS1 128 barcode GS1 data matrix barcode RFID chip		
The data needed by the players in the delivery process	Content information, supply chain process instructions, invoicing		Parcel, confirmation of receipt
How this data is made available	EDI/XML EPCIS		API → Transfollow
Identifying players in the delivery process	Global Location Number		
Service Level Agreement?	-		Limited

## 5. Appearance of label

For the design of the Technical Specification for the Harmonised Parcel Label, the CEN working group took the existing UPU parcel label for international, traceable delivery scenarios and added the possibility for the shippers to apply a Serial Shipping Container Code on the bottom part of the label. This way European standardisation is keeping open the possibility of also using carrier specific or UPU S10 barcodes on the harmonised label. Online merchants wishing to use operators outside the UPU domain will use the worldwide unique Serial Shipping Container Code.

The design of the CEN TC 331 WG 3 for the Harmonised Parcel Label:



In the illustration, there is space between the yellow quiet zones for the carrier’s barcode or the UPU’s S10. The lower barcode is the space for the Serial Shipping Container Code (SCCC).

The full technical specifications of the Harmonised Parcel Label can be obtained through the local standardisation bodies.

## CONCLUSION

To meet the growing needs and expectations of today's consumers, online retailers would greatly benefit from using a Harmonised Parcel Label. The label would significantly improve the efficiency of cross-border deliveries and return processes, giving retailers and consumers more options in shipping services.

The Serial Shipping Container Code (SSCC) on the label would enable all partners in the delivery network to use one worldwide unique parcel ID system to link their data to the physical parcel. Parcels would no longer need to be relabeled when they are handed over from one operator to another, resulting in far greater efficiency, lower cost, better traceability, and the ease of adding new services to the delivery service portfolio.

By working together to implement the Harmonised Parcel Label, retailers and carriers would create a parcel stream that accommodates the current and future needs of consumers and all stakeholders in the delivery service industry.

*'By harmonising parcel labels, we create more flexibility and insight into the logistics chain, so that we can ultimately deliver much better service to our customers and at the same time help the e-commerce market to continue to grow.*

*It will be easier for carriers to hand over parcels so that they can still be delivered to customers on time, even in the event of an emergency. Moreover, the parcel will retain the same unique number making it possible for the customer to track his parcel at any time and therefore know when it is going to be delivered. Also, the fact that more and more towns and cities are likely to impose restrictions on urban distribution as a result of the growth of the e-commerce market means that large and small carriers will have to transfer parcels among themselves with increasing frequency. At the same time, harmonising the parcel label will stimulate cross-border flows, which of course will open opportunities for the Dutch e-commerce market. But of course, this will also mean that other European stakeholders will be able to operate more easily on the Dutch market.*

*Another significant benefit for the customer is the greater number of return options that will become available. The customer will be less bound to one specific return point and will be able to hand in the parcel at a place that is most convenient to him. It is thanks to this convenience that more and more customers will start to shop online, thereby boosting growth on the e-commerce market even more.'*  
(bol.com)

# APPENDIX

## Implementation

While work is starting on defining a data model for exchanging data between online retailers and carriers, as well as other stakeholders, users can prepare their implementation or even gain experience with the Harmonised Parcel Label.

- Make sure there is room to accommodate the Harmonised Parcel Label in your plans.
- Check the capabilities or needs of your current systems.  
Can you for example generate or process Serial Shipping Container Codes to identify parcels.
- Ask your carriers if they are able to use, or if they are making preparations to use, the Harmonised Parcel Label, and whether they would be able to transfer goods to other carriers if that is what customers want.
- You can put the same question to providers of multi-carrier solutions.
- Over the next year, monitor developments relating to the Harmonised Parcel Label and the data interface via Ecommerce Europe, GS1 and their local member organisations.
- Take part in international and/or local discussions on this topic. For example, add your input into how service and innovation can be enhanced by sharing data and the preconditions for this, in relation to security and privacy.
- If you would like to launch a pilot project, please contact Luca Cassetti and Walter Trezek at Ecommerce Europe ([lucacassetti@ecommerce-europe.eu](mailto:lucacassetti@ecommerce-europe.eu); [walter.trezek@docex.net](mailto:walter.trezek@docex.net)), Jaco Voorspuij at GS1 ([jaco.voorspuij@gs1.org](mailto:jaco.voorspuij@gs1.org)) or Frits van den Bos at GS1 Netherlands ([frits.vandenbos@gs1.nl](mailto:frits.vandenbos@gs1.nl)).

## Using the Serial Shipping Container Code

*The GS1 SSCC is a cornerstone for the benefits to be gained from the Harmonised Parcel Label in an open multi-stakeholder delivery network. The questions below focus on enabling the use of the SSCC by all stakeholders handling the parcel on its way to the customer.*

### **Check if you are already using the Serial Shipping Container Code (SSCC) as parcel identifier**

*It is quite possible that you are already generating SSCC without being aware of it. Many hauliers (e.g. for pallet transportation) and carriers (e.g. some postal and parcel service providers) accept the SSCC as identification for the logistic handling units they manage. Or they may even use the SSCC as the standard for all or part of their operations (e.g. Dachser, DHL, DSV, Swedish Post). If you work with such a service provider, you may already generate an SSCC and include it on the labels you create for those service providers.*

*When you use an SSCC for any of your carriers, you can easily extend its use to other service providers capable of processing parcels based on SSCC values. You would need to discuss your plans to do so with those additional service providers.*

### **Is your IT system capable of handling the SSCC as parcel identifier?**

Most modern IT systems such as ERP (Enterprise Resource Planning), WMS (Warehouse Management System), TMS (Transport Management System) support the GS1 system of standards and the SSCC as a configurable option in their software. For example, SAP, Oracle, Manhattan, JDA, Infor, Consafe and many others provide this configurable option. If you run such systems, you would need to activate that option in your software. Your system-users may be able to complete that configuration on their own. Your software vendor or implementation partner can assist you in that if required. No programming is involved in this configuration exercise.

All modern printers can generate the barcodes on the Harmonised Parcel Label and all modern scanners can read them. You do however need to test that your printers and your scanners generate the right outputs so that your systems and those of others handling your parcel can correctly handle the parcel.

### **What do I ask my transport service provider when I want to use the new labels with them?**

Over time, more and more service providers will be able to accept and process the SSCC and Harmonised Parcel Label and they will then include explicit support also in their commercial documents. Check those documents and look for that explicit support. For example, DHL explicitly mentions support for GS1 SSCC in their technical documentation on generating DHL parcel labels.

If such explicit support is not evident from the documentation supplied by the service provider, you would need to contact them with questions.

As mentioned above, many service providers are capable of handling parcels identified with an SSCC, even if only for some of their services or some of the destinations they serve. For example, for domestic services carriers, they may be more flexible than international services. You should explicitly ask whether they have that capability for any type of service or any destination. You may be able to use SSCC for the services and destinations that are relevant for you. You can even ask to run a test or pilot with an SSCC generated by you on the service provider labels to validate it also works in practice.

The service provider labels often hold far more data than is available on the Harmonised Parcel Label). However, the service provider generally uses only the information that is also on the Harmonised Parcel Label. In particular, the sorting infrastructures service providers have may read only the Parcel ID and handle the parcel solely based on that one Identification number. The delivery person may still look at the address printed on the label. For confirmation of delivery they will generally use a device linked to the carrier's systems. Therefore, you can ask your service providers that already support the SSCC as Parcel ID to accept the Harmonised Parcel Label instead of the service provider's proprietary label for a pilot or test that would cover services and destinations that are relevant to you.

If the pilots confirm that the service provider is indeed able to handle the Harmonised Parcel Label for the services and destinations that are relevant for you, you should ask that your commercial agreement with the service provider be amended with clauses that unambiguously state that the service provider will accept parcels identified with an SSCC and marked with the Harmonised Parcel Label from you. Otherwise, the service provider may claim the use of a 'non-standard' label on the parcel as the cause

for not meeting agreed service levels or he may even relabel your parcels and charge you for that. Always make sure to generate high quality print labels / barcodes to ensure accurate handling of your parcels on their way to your customers.

The above process would be necessary only for the period that the service provider does not yet support the Harmonised Parcel Label in its contracts or terms & conditions.

### **A third party runs my warehouse. What do I do in that case?**

The approach described above is applicable here, too, but you ask the questions for both yourself and for your third-party warehousing partner. Your systems and those of your warehousing partner both need to be able to work with the SSCC code. Your systems will need to receive SSCC information from the warehousing system so your systems can receive information like confirmation of delivery from your transportation service provider, who will use the SSCC for the parcel that was delivered. The warehousing partner will generate the Harmonised Parcel Label and attach it to your parcel on your behalf. Therefore, you would need to engage with your transportation service provider on Harmonised Parcel Label implementation with that carrier. The warehousing service providers may already have experience (through another client) with your transport service provider and their support for SSCC and Harmonised Parcel Label. Ask your warehousing service provider for information about their experience and other relevant input.

GS1 maintains the SSCC standard and manages that any SSCC value is unambiguous and unique worldwide. To be able to issue SSCC for your parcels, you must have a relationship with GS1.

You may already have such a relationship, for example, when you sell consumer products you almost certainly use Global Trade Item Numbers (GTIN) to identify your products. If you already have a relationship you should contact your GS1 partner and inform them of your intent to start assigning SSCC to parcels. Your GS1 partner will then assist you in the next steps. In case you do not yet have a GS1 partner you will need to choose one. Below you will find a link to contact details for all the GS1 partners that can support you.

<http://www.gs1.org/contact>

You are free to work with any of the GS1 partners regardless of where you or the GS1 partner is located.

## ABOUT

### Ecommerce Europe

Through its 20 national associations, representing over 25,000 online shops, Ecommerce Europe is the voice of the e-commerce sector in Europe. Its mission: stimulate the e-commerce industry by helping decision makers shape policies fit for future sustainable growth. To accomplish this, Ecommerce Europe takes initiatives to develop innovative market solutions and provides a platform for expert discussion, connecting online retailers with relevant stakeholders. The organisation also highlights the importance of e-commerce to the economy through the provision of in-depth research on the European and global markets. Additionally, Ecommerce Europe stimulates the industry by developing initiatives like its European Trustmark label.

### Thuiswinkel.org

With over 2,200 members, Thuiswinkel.org is a Dutch digital commerce network that helps companies, entrepreneurs and employees become more successful. They offer relevant and practical solutions through lobbying, knowledge, research, education and the “Thuiswinkel Waarborg Keurmerk” trustmark. Their objective is to improve trust and to make cross-border trading easier.

### Shopping Tomorrow

Shopping Tomorrow is a digital commerce platform for all e-commerce professionals.

They explore and contribute to the transformation of B2C and B2B retail and study the impact that future developments in business models, customer travel, technology, etc. will have on companies and employees in the Netherlands. The research platform was initiated in 2013 by Thuiswinkel.org and is currently supported by 20 Dutch industry and interest groups.

### GS1 in Europe

GS1 in Europe is the European platform of GS1, representing 47 Member Organisations (MOs). GS1 in Europe encourages and facilitates the collaboration of member organizations by developing and implementing harmonised, user-driven solutions for improving the supply & demand chain of European companies. GS1 in Europe also builds relationships with the European Commission and other relevant institutions in close collaboration with industry associations to deliver up-to-date information relevant to European businesses. More information at [www.gs1.eu](http://www.gs1.eu)



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