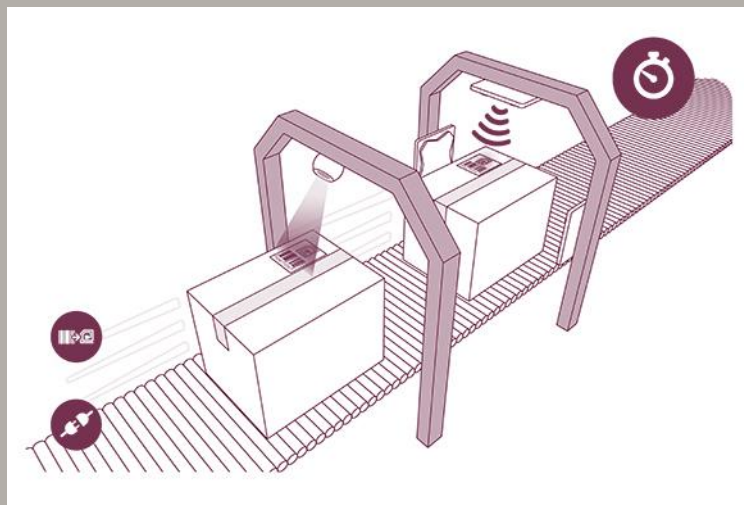


### END-TO-END TRACEABILITY IS A REAL CHALLENGE FOR PARCEL AMBITIONS OF POSTAL OPERATORS

COMPETING INTEGRATORS REQUIRES UNIFORMIZATION AND INTEGRATION OF  
COMMUNICATION THROUGHOUT THE MULTI-PLAYER LOGISTICS CHAIN



The rise of internet communication has forced traditional postal operators to cope with declining mail volumes. However, it also offers major opportunities through the growing demand for e-commerce parcel deliveries. Surviving the competition with the traditionally strong B2B express parcel “integrators” requires traditional postal operators to create a better fit with e-shoppers’ expectations. The most difficult challenge is proving to be communication and information between all stakeholders.

## E-Commerce, a promising but demanding sector

Sector evolutions offer opportunities

The growth of the e-commerce sector offers opportunities for postal operators. Year on year, postal operators report on declining regular mail volumes due to the increasing importance of digital communication since the rise of the internet about 2 decades ago. This decline has urged postal operators to change their offer and modify their business model. Most of them have added related and unrelated ancillary services to their regular offer. Spurred by the boom of the e-commerce sector, the parcel market grew at a CAGR of 7.5% between 2010 and 2014.<sup>1</sup> E-commerce turnover reached c. € 1.3tr in 2014 and is expected to hit c. € 1.7tr in 2016 already. Postal operators are consequently transforming their regular mail operations towards parcel logistics.

**Integrators are dominant on the international express parcel market.** Along with upcoming globalization during the 70’s and 80’s of the last century came the rise of internationally operating integrators. Today, the market is largely consolidated. UPS, FedEx (acquiring TNT in 2016), Yamato and DHL currently have a dominant market share of 52% in the international express segment.<sup>2</sup> Since 2000, many national postal operators have created wholly independent integrators through acquisitions. In 2001 the Deutsche Post and La Poste acquired the American DHL and the German DPD respectively whilst Royal Mail opted for a buy and build strategy creating GLS.

<sup>1</sup> Global Parcel Delivery Market Insight Report 2015

<sup>2</sup> Cross-Border Parcel Delivery Operations and its Cost Drivers, TPR, UAntwerp 2015

**Focusing on B2C and C2C parcel delivery national postal operators are carving out a niche** that caters to e-commerce customers. Postal operators like La Poste and Royal Mail thus adopt a two-tiered approach having both an integrated model and a hybrid mail and parcel model. Other operators such as the Belgian bpost or the Dutch PostNL opted solely for a hybrid mail parcel model.

FIGURE 1 : PURE PARCEL AND HYBRID MAIL & PARCEL PLAYERS



Source: Sia Partners

E-Shopper expectations challenge sector

**When it comes to the logistics of their purchase, e-shoppers expect convenience and low cost, whether they shop cross-border or not.**

The parameters an e-shopper takes into account looking for **convenience** are<sup>3</sup>:

- Speed of delivery
- Information through track and trace options
- And flexible delivery and return options which can include home / office delivery and collection points

A low or free **shipping cost** for customers is becoming more and more important, 93% of shoppers are encouraged to buy more if free shipping is included. Moreover, 75% of e-shoppers consider unconditional free shipping of their parcels to be a crucial element to the transaction.<sup>4</sup> This commercial pressure put on e-tailers by e-shoppers is transferred onto the parcel operators. Considering the threat of vertical integration of some large e-tailers, an evolution that is slowly coming of age (e.g. Amazon), pressure on cost will only continue to increase.<sup>5</sup>

**Cross-border e-shopping is growing** in all countries. This growth is spurred by the increased trust e-shoppers have in renowned international e-tailers such as Zalando and Amazon or

<sup>3</sup> See also Belgian retail stores under pressure, available through <http://transport.sia-partners.com/belgian-retail-stores-under-pressure>

<sup>4</sup> Asendia 2015 Pocket guide to cross-border e-commerce

<sup>5</sup> Interview Alain Roset, Director Innovation La Poste & Chairman CEN, 2016

e-commerce trust marks and labels held by smaller players. Another cause of cross-border growth is the lowering cost and increased ease and security of online and international payments.<sup>6</sup>

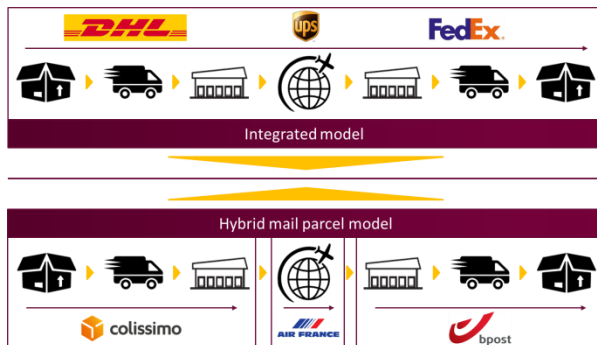
**Convenience, cost and cross-border all have an important impact on the operational model of parcel operators.** Players that strike the right balance between these 3 elements will have the best shot at enlarging their market share in this competitive market.

## Survival of the fittest

Operational models and their performance in e-shopper expectations

**The integrated and the hybrid mail parcel model offer different advantages and disadvantages to e-shoppers due to the difference in their operational model.** Integrators have an end-to-end international operational model. From pick-up in country A, over flying to and delivery in country B, the entire logistical process is operated by one company. Hybrid mail parcel players do not have a global network of their own. Their model thus implies cooperation between a postal operator in country A, a postal operator in country B and a handler / transporter that moves the parcel from country A to B, see figure 2 hereunder.

FIGURE 2 : COMPARISON OF OPERATIONAL MODELS



Source: Sia Partners

With regards to the **convenience** aspects of customer demand a comparison shows us that:

- **Speed of delivery:** Regarding speed of cross-border delivery, integrators are stronger than hybrid mail parcel operators as they don't depend on other actors to perform their part of the job. In national deliveries hybrid mail parcel offer similar delivery delays as integrators.

<sup>6</sup> See also New EU interchange fees regulation, available through <http://transport.sia-partners.com/new-eu-interchange-fees-regulation>

- **Information through track and trace:** Integrators offer end-to-end traceability through their company specific track and trace systems whereas this system is still in development between hybrid mail parcel operators and handlers for cross-border deliveries.
- **Flexible delivery and return options:** Through their scale, local presence and their postmen and women hybrid mail parcel operators have a much more direct relation to the end customer than integrators. Lacking such an intricate network, integrators try to cater to their customers' needs by offering delivery on demand (time and place).

Both models clearly have their advantages in terms of convenience, but how do they compare in terms of **shipping cost**? Due to their existing and intricate network used for mail, hybrid mail parcel operators benefit from synergies and economies of scale. Integrators have a large global footprint but their local distribution networks are much less developed. On top of that, the extra efforts with regards to flexible delivery decrease operational efficiency and thus increase costs. This difference in operational cost is at least part of the reason why consumer prices differ to such an extent, see table 1 hereunder.<sup>7</sup>

TABLE 1 : COMPARISON OF CONSUMER PRICES

Destination	National		EU				International			
	< 1kg	30kg	< 1kg	30kg	< 1kg	30kg	< 1kg	30kg		
Parcel weight	D+1	D+1	D+1	D+N	D+1	D+N	D+1	D+N	D+1	D+N
UPS	40 €	57 €	179 €	-	353 €	-	88 €	-	460 €	-
Fedex	34 €	78 €	69 €	-	227 €	-	139 €	-	410 €	-
DHL	46 €	112 €	83 €	-	338 €	-	91 €	-	517 €	-
Parcel Force	8 €	55 €	54 €	43 €	221 €	115 €	65 €	53 €	295 €	252 €
Colissimo	8 €	27 €	-	15 €	-	58 €	-	26 €	-	160 €*
PostNL	7 €	13 €	-	13 €	-	45 €	-	24 €	-	105 €*
bpost	7 €	15 €	-	34 €	-	153 €	-	39 €	-	154 €
Avg. Integrators	40 €	82 €	110 €		306 €		106 €		462 €	
Avg. Hybrid MPOs	7 €	27 €	54 €	26 €	221 €	93 €	65 €	36 €	295 €	203 €
Δ %	+ 554%	+ 300%	+ 423%		+ 330%		+ 296%		+ 228%	

Source: Sia Partners

As said, **integrators perform better on the convenience aspects of cross-border deliveries** as they have their own independent end-to-end operational network. Hybrid mail parcel players on the other hand depend on other partners for the execution of the international transport and delivery in country of destination.

<sup>7</sup> Assumptions:

- Calculated through operators' price calculators for consumers on their respective websites; DPD and GLS solely offer B2B services, no data could be gathered;
- National route is France – France; EU route is France – Belgium; International route is France – USA (NY)
- \* Max weight PostNL/Colissimo parcel international is 20kg

FIGURE 3: PERFORMANCE COMPARISON OF OPERATIONAL MODELS

		Hybrid mail parcel operator		Integrators	
		National	Cross-border	National	Cross-border
Convenience	Speed of delivery	++	+	++	++
	Information (track and trace)	++	-	++	++
	Flexible delivery	++	+	++	++
Shipping cost		++	++	-	-
Overall score		++	+	+	++

Areas of improvement

Source: Sia Partners

The lack of free choice of mail parcel counterparts makes it hard to control and improve their performance through other than quid pro quo measures. As mutual dependency only works well when volumes to and from are rather equal, pressure is mostly exerted politically in international organizations, *see infra*.

Regarding the handlers and airlines, hybrid mail parcel operators have more choice of partners but a rather weak bargaining power with regards to prices. As postal shipment volumes only amount up to c. 10% of their total cargo, handlers and airlines have the stronger hand.<sup>8</sup>

**The main challenge for hybrid mail & parcel players thus is to improve the information offered to the e-shopper through end-to-end traceability for cross-border deliveries.** In order to achieve this goal postal operators and handlers / transport companies need to **standardize the information** they exchange. This requires both the **creation of communication norms** and the development and implementation of **communication systems**. Increased efficiency of the communication flows between all stakeholders will have a positive impact on cross-border delivery times.

## Traceability requires standardization of communication

### Multiple standardization initiatives

Traceability depends on communication between the different parties in the logistical chain. This implies that **communication systems of all postal operators and handlers in the scheme need to be aligned and speak the same language**. To this end, postal operators, handlers and airlines convene in several international organizations to standardize these communication standards. An overview of these organizations is given consequently.

<sup>8</sup> Interview Luc Larrieu-Sans, Manager International Transport Services La Poste, 2016

### OVERVIEW OF MOST RELEVANT STANDARDIZATION BODIES

**UPU:** The Universal Postal Union, a body of the United Nations, develops technical standards and EDI message specifications through its Standards Board that facilitate the exchange of operational information between Postal operators. It also coordinates UPU standardization initiatives with those of other international standardization bodies.

**IPC:** International Postal Corporation represents postal operators from the developed countries (c. 80% of all mail volumes). It encourages the adoption of best practices through the development, implementation support and monitoring of a.o. a complete operational, tracking and information platform to underpin its members' e-commerce growth opportunities.

**CEN:** European Committee for Standardization is an association that brings together the National Standardization Bodies of 33 European countries (e.g. AFNOR – France; DIN – Germany; BENOR – Belgium). CEN supports standardization activities in relation to a wide range of sectors including Postal logistics through its specialized Technical Committees.

Source: Sia Partners

### Standardization of multi actor communication

Before going into the details of the communication standards two business concepts need to be clarified: dispatches and consignments.

- **Dispatch:** A dispatch is a pool of mail or parcel objects that parts in a specific exchange office and has one common final exchange office as a destination, e.g. a pool of parcels objects going from Lyon to San Francisco.
- **Consignments:** A consignment is a pool of mail **and/or** parcel objects that can consist of several (partial) dispatches from one international postal transport hub to another, e.g. a consignment consisting of our parcel dispatch from Lyon and a mail dispatch from Bordeaux being pooled in Charles de Gaulle international transport hub to go to Los Angeles LAX international postal transport hub; the parcel dispatch going further to San Francisco and the mail dispatch continuing its journey to Las Vegas.

The communication between hybrid mail parcel operators and between handlers, airlines on the one hand and hybrid mail parcel operators on the other can be discerned as 2 separate flows. The first flow is indicated in Figure 4 with a ① the second as a ②

Regarding **communication between hybrid mail parcel operators** four different types of messages are exchanged:

**Communication on dispatches :**

- The exchange office of origin announces a detailed list of all mail or parcel objects assembled in the dispatch to the exchange office at destination by means of a **PREDES**. Upon arrival the exchange office at destination confirms the exchange office of origin that the announced mail or parcel objects arrived in a **RESDES** message.

**Communication on consignments:**

- **Between postal operators:** The international postal transport hub of origin announces a detailed list of all mail or parcel dispatches and objects assembled in the consignment as well as all information related to the transport to the international postal transport hub at destination in the **PRECON** message. Upon arrival its counterpart at destination confirms that the announced mail or parcel objects arrived in a **RESCON** message.
- **Between the postal operator of origin and the handler / transport company:** The international postal transport hub of origin sends an equivalent of the PRECON message to the handler / transporter, called the **CARDIT** message.

The handler / transporter in turn answers this message with a **RESDIT** message at multiple moments during the transportation process to obtain a detailed overview of where the consignments exactly are.

**Internal implications of communication standardization**

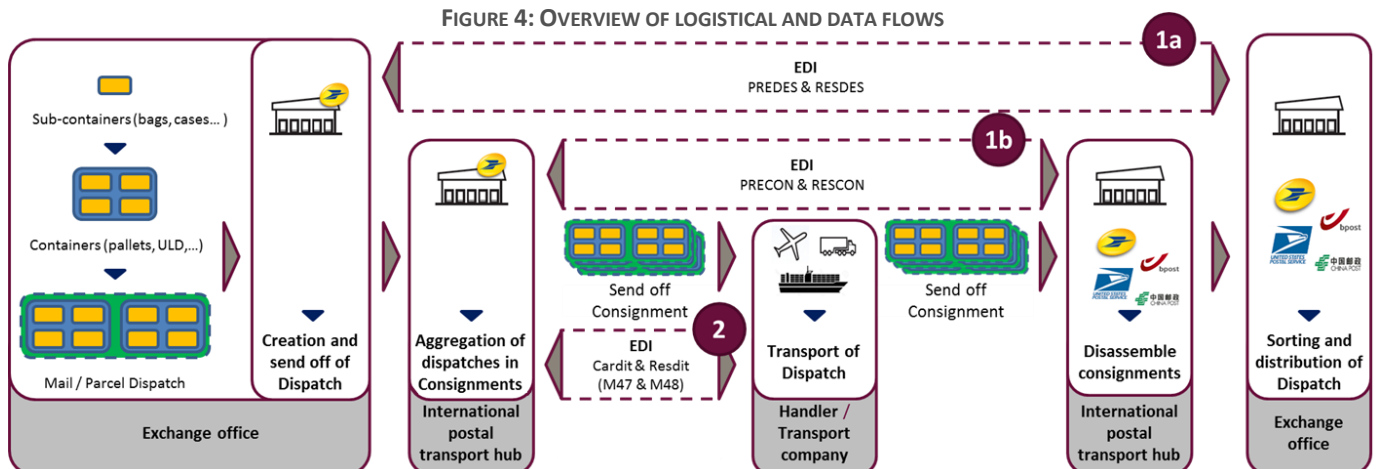
After having agreed to standardize communication norms in the aforementioned political bodies, hybrid mail parcel operators and handlers need to implement them in their operations. **Implementation requires both investments in IT-systems and in operational processes.**

**Additional benefits of electronic messaging**

Investing in standardization of communication not only improves track and trace capabilities that are expected by e-shoppers, it also has other important benefits.<sup>9</sup>

- It is necessary to fulfill upcoming regulatory requirements with regards to customs declarations.
- It improves all security and safety related matters as the messaging standards provide detailed information with regard to the level of security (X-ray, sniffer dogs, ...).
- It improves efficiency of the operations and the management of the back office such as the procurement and invoicing process. End-to-end monitoring of product flows allows automated billing and invoicing between postal operators and handlers / transport companies and between postal operators mutually.

FIGURE 4: OVERVIEW OF LOGISTICAL AND DATA FLOWS



Source: Sia Partners

<sup>9</sup> Interview Luc Larrieu-Sans, Manager International Transport Services La Poste, 2016

## Conclusion

The growth of e-commerce offers vast opportunities for both e-tailers and postal operators. As e-tailers' success is partially determined by the delivery services they can offer to the e-shopper, e-tailers will contract delivery partners that cater to their customers' expectations.

Convenience in terms of delivery speed, flexibility and information as well as cost can be discerned as crucial factors in the decision making process of e-shoppers. Due to economies of scale hybrid mail parcel operators can operate at a lower cost than integrators. However, traceability and speed of cross-border deliveries are their relative weaknesses.

An important measure taken by hybrid mail parcel operators to remediate these weaknesses is to convene in harmonization bodies to standardize communication norms. Improved communication between operators and handlers / transport companies will not only ensure traceability for e-shoppers but will eventually also benefit delivery speed.

Although politically cumbersome, the communication standardization process proves to be crucial in the transformation of mail operators towards hybrid mail parcel operators in their aim to offer the best fit with e-shoppers' expectations.

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## ABOUT SIA PARTNERS

Founded in 1999, Sia Partners is an independent global management consulting firm with over 600 consultants and an annual turnover of USD 120 million. The Group has 16 offices in 13 countries, including the U.S., its second biggest market. Sia Partners is renowned for its sharp expertise in the Energy, Banking, Insurance, Telecoms and Transportation sectors.

Roel Peeters is senior manager at the Brussels Office of Sia Partners with over 15 years of experience in business and consulting. He is responsible for the Transport Industry and Retail practice for the Benelux. His last projects were in the domain of cost optimization, operational excellence, with a focus on quality improvements. Ignace Thienpont is a consultant in the Transport, Industry & Retail practice (TIR) of Sia Partners Benelux. He has a profound knowledge in TIR and postal challenges in which he executed several projects in process management, change management and optimization exercises.

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