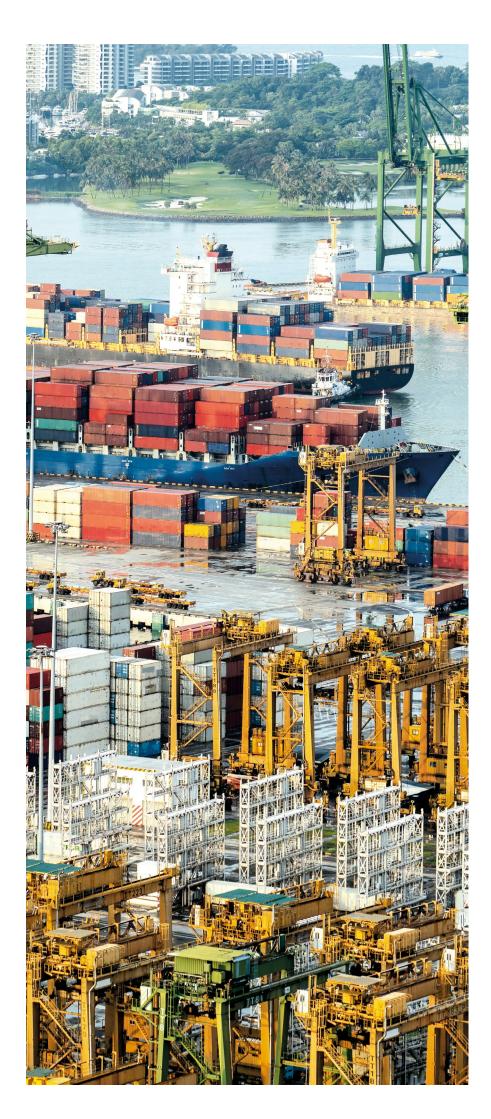
## **Deloitte**



### Incoterms<sup>®</sup> (2020) – The hidden champions of efficiency

Your guide to improving business performance across the entire value and supply chain

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## Abstract

Incoterms<sup>®</sup> rules <sup>1</sup>, short for International Commercial Terms, have had a major impact on world trade for more than 80 years.

They influence all business aspects from sourcing to sales, from legal to finance, from business operations to corporate strategy, to software algorithms. Despite the fact that many enterprises already interact closely with Incoterms<sup>®</sup> rules in their day-to-day business, their power is often underestimated.

The Incoterms<sup>®</sup> 2020 update was released on September 10, 2019. It is not surprising that Incoterms<sup>®</sup> rules were changed after nearly 10 years, as has regularly been the case since the 1980s, but in this case as well, it is up to the stakeholders to analyze and adapt to those changes.<sup>1</sup>

Jointly authored with specialists from a variety of functional perspectives, Deloitte intends to provide its professional view on the key opportunities and threats arising from the Incoterms® 2020 update. A high-level analysis will be presented in this Point of View (PoV) after outlining the conventional wisdom on the vast impact area of Incoterms® rules in the introduction.

<sup>1</sup> Incoterms<sup>®</sup> and the Incoterms<sup>®</sup> 2020 logo are trademarks of ICC. Use of these trademarks does not imply association with, approval of or sponsorship by ICC unless specifically stated above. The Incoterms<sup>®</sup> rules are protected by copyright owned by ICC. Further information on the Incoterms<sup>®</sup> rules may be obtained from the ICC website iccwbo.org.

#### **Reader's Guide**

This PoV is designed to serve Incoterms®-Newbies as well as Incoterms® Professionals, revealing the key benefits of Incoterms® rules for everyone from the Head of Purchasing to the Head of Sales, IT and Logistics. For experienced readers, the following chapters will likely be of interest: Chapter 2 Use Case CPT, Chapter 3 Power of the Hidden Champions with the respective business area relevant to you, Chapter 6 Graphic. Summarizing chapters are Abstract, Chapter 5 How to Approach and Conclusion.

Additional key facts can be found in the footnotes.

The core chapter is "Power of The Hidden Champions" in which we describe the power of Incoterms® rules. The impact analysis targets the core processes determined by and related to Incoterms® rules, such as: logistics, finance, global trade, procurement and sales, accounting, tax, as well as software.

The main changes in the Incoterms<sup>®</sup> 2020 update are visualized in the diagram in chapter 6 or briefly explained in chapter 4.

Companies that are aware of the costcutting potential and committed to adhering to the 2020 changes will be able to improve processes and save money.

Please note that Incoterms® is a very complex topic and this Point of View is only able to consider certain aspects while omitting others. Its intention is not to focus on the Incoterms® rules themselves. Thus chapters 1 and 2 only provide a brief introduction, for beginners. For more detailed information please refer to the ICC rule book.<sup>2</sup> The Point of View's main focuses are:

- their usage in daily business and their challenges across related end to end processes
- to illustrate mainly the perspective from a European seller/buyer perspective
- to highlight the difficulties in correctly reflecting them in software.

Thus, this document cannot be considered as a finished/full-fledged analysis but should serve the purpose of raising awareness about their Hidden Power of Efficiency.

#### Abbreviations

- FF Freight Forwarder
- FCL Full Container Load
- FTL Full Truck Load
- LCL Less Than Container Load
- LTL Less Than Truck Load
- LSE Loose cargo (airfreight)
- CTR Ocean freight container
- ULD Unit Load Device Airfreight Container
- TEU Twenty Foot Equivalent Unit (small ocean freight container)
- SO Sales Order
- BoL, Bill of Lading
- B/L
- MBL Master Bill of Lading (carrier – freight forwarder)
- HBL House Bill of Lading (freight forwarder – seller/buyer)

- LoC Letter of Credit
- ERP Enterprise Resource Planning System
- CRM Customer Relationship Management
- TMS Transportation Management System
- WMS Warehouse Management System
- Inco Incoterms®
- BGB Bürgerliches Gesetzbuch (German Civil Code)
- LSP Logistics Service Provider
- CIS Commonwealth of Independent States
- VGM Verified Gross Mass (of the ocean freight container)

<sup>1</sup> Based on ICC information available, Incoterms<sup>®</sup> rules become "effective" on 1st January 2020. However,

some ICC information states that they can be implemented immediately. See details in chapter 3.1.

<sup>2</sup> Incoterms<sup>®</sup> 2020 by the International Chamber of Commerce

## 1. Introduction to Incoterms<sup>®</sup> rules

#### 1.1. What are Incoterms<sup>®</sup> rules

"Incoterms<sup>®</sup>" stands for International Commercial Terms. Since 1936, these terms of trade have been defined and regularly updated by the International Chamber of Commerce (ICC). Sellers and buyers across the globe use Incoterms® rules in their contracts for goods in order to clarify which obligations each party has with regard to freight costs, risk and insurance, often with visualizations like Fig. 1. Based on these three core areas, the terms define various processes across departments, functions, companies and countries. The following examples will give you an idea of the vast range of areas in which Incoterms® rules have a direct or an indirect impact:

- Who bears the risk when goods are damaged during transport?
- What freight costs are paid by the seller/ buyer?
- Is the seller obliged to contract insurance cover against the buyer's risk?
- How many freight forwarders do the seller and the buyer have to contract?
- At what point is the seller allowed to recognize revenue based on the "Proof of Delivery"?<sup>3</sup>

- Who is responsible for loading/unloading the goods, clearing customs, filing documentation, etc.?
- What is the correct tax determination logic?
- How much to boost a firm's foreign currency trade?
- To what extent can we improve cashflow?
- Efficiency in Letter of Credit procedures?
- The extent of intercompany invoicing required within the logistics enterprises?
- How much additional money a freight forwarder can earn by acting as a bank for customs disbursements?

Having provided a rough overview of Incoterms®, the next sub-chapter will provide a basic introduction of their most important characteristics.

#### **1.2 Naming Convention**

When we talk about Incoterms<sup>®</sup>, it is often not sufficient to simply consider the 3-letter abbreviation, i.e., "EXW" (Ex Works), to understand the situation and manage obligations. There are as many as three factors that we need to consider when negotiating Incoterms<sup>®</sup> in a sales/ purchasing contract.

#### 01. 3-letter abbreviations

The abbreviation identifies the chosen trade term for this Incoterms<sup>®</sup> rule.

#### 02. Place of Incoterms®-Delivery = Place of risk transfer (bar in the middle, in blue, in Fig. 1)

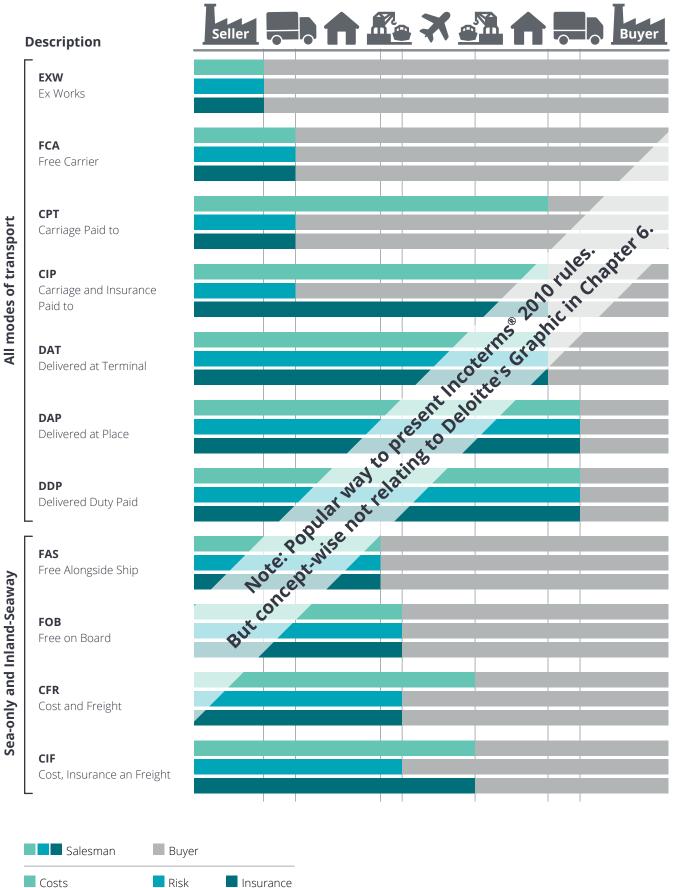
Defines the point at which the seller's risk is transferred to the buyer, e.g., the responsibility for loss or damage of goods.<sup>4</sup> (In some Incoterms® rules this Named Place has to be mentioned explicitly.) The wording Place of Incoterms®-Delivery has been introduced in order to underline that it should not be mixed up with the Place of Delivery in other contexts e.g. relating to invoicing.

#### 03. Place of Incoterms<sup>®</sup>-Destination = Place of cost transfer (bar at the top, in green, in Fig. 1)

Defines the place to which it is the seller's obligation to deliver the goods – that is not to be confused with the good's (Final-)Place of Destination at the order/delivery level, which usually denotes the final physical destination for the goods, e.g., the buyer's premises. (In many Incoterms<sup>®</sup> rules this place has to be mentioned explicitly.)

<sup>&</sup>lt;sup>3</sup> Please note "Proof of Delivery" can easily be misinterpreted. There are three types of "Proof of Delivery" relating to the: a) Place of Delivery (risk transfer), b) Location of (Incoterms®) Destination (cost transfer) and c) Proof of Delivery at the Final Destination. It is vital to distinguish between them, as wording and availability in software may vary greatly. Details will follow within this PoV.

#### Fig. 1 – Popular way to present Incoterms<sup>®</sup> 2010 rules (not relating to Deloitte's Graphic in Chapter 6)



Costs

#### Example

Company XY is located in Frankfurt (Germany) and leases agricultural machines. In this instance, the company decides to sell a machine that is physically located at Client AB's site in Zagreb (Croatia) at the moment. The machine is sold to Company CD, a buyer in Wuhan (China).

The pre-carriage entails shipping the machine by truck from Zagreb to Trieste Port (Italy), the main-carriage is a container ship to Shanghai Port (China) and the on-carriage is in a truck again, this time from Shanghai Port to the buyer's location in Wuhan.

#### A complete naming could be: CPT – Trieste Port – Shanghai Port⁵

- CPT = Carriage Paid To
- Place of Delivery = Trieste Port (even more precisely recommended)
- Place of Incoterms®-Destination = Shanghai Port (even more precisely recommended)

This indicates that the seller must deliver the goods to Shanghai Port. If the cargo is damaged on the vessel, however, it is already the buyer that bears the risk. (Additional cargo insurance can be utilized, see chapter 4.)

Please note that this example describes only one of the two options for Place of Delivery and Place of Incoterms®-Destination. The two places are either both different, or both the same. See the next chapter for further details.

## 1.3 Possible Clustering Criteria for Ease of Memorizing

In the following, some popular methods are introduced on how Incoterms<sup>®</sup> rules could be grouped. They don't reflect official clustering but rather serve the purpose of easing memorization of certain aspects.

#### 1. Clustering Criteria: Place of Delivery and Place of Destination

All incoterms<sup>®</sup> rules starting with the letter "C" indicate that the above-mentioned places differ. All other incoterms<sup>®</sup> rules have the same place to transfer risk and costs.

#### 2. Clustering Criteria: Mode of Transport

Group 1 (FOB, FAS, CFR and CIF) may be used only for <sea only> shipments. For instance, when a shipper is directly located on a river, they first use an inland barge and then an ocean vessel. These Incoterms® rules should not be used for containerized cargo. When FOB, Free on Board, is chosen, the seller has to deliver the goods by placing them on board the vessel at the port of loading. For the main- and on-carriage the buyer must take delivery, thus it is a vessel nominated by the buyer (via freight forwarder, shipping line, chosen ports, etc.). Containers cannot be delivered onboard the vessel by the seller. Yet the seller still bears the risk until the goods are on board the vessel. As a consequence, the better Incoterms® rule option here is FCA Port of Load.

#### 3. Clustering Criteria: whether Named Place(s) need to be defined further in detail

We will use a few examples to describe this approach:

• With FOB, it is clear that the Named Place is the Port of Load. The cargo must be delivered and paid by the seller until "(Free) On Board (the vessel)" and from that point on, the risk of loss and damage rests with the buyer. Note: this point in time describes the "Shipped on Board" date which is captured on a (Master) Bill of Lading.<sup>6</sup>

- With CFR and CIF, it is also clear as their Point of Delivery is the Port of Load (risk) and their Point of Incoterms<sup>®</sup>-Delivery (costs) is the Port of Discharge.
- With DAP Delivered at Place, it is not completely clear 'which place' is the point at which the goods and risk are transferred to the buyer. Seller and buyer have to attach the agreed place to the 3-letter-code, e.g., DAP Houston (buyer's premises).
- When using CPT Carriage Paid To, it is not immediately clear at which places the goods (=Place of Incoterms®–Destination) and the risk are transferred (=Place of Delivery). Note: the default position is that risk transfer takes place when goods are delivered to the first carrier.

## 4. Clustering Criteria: Un-/loading mandatory or not

Finally, Cluster Method 4 is introduced at a high level, an approach that uses the readiness of goods at their Places of Delivery and Incoterms®-Destination as a basis. Readiness can be one of two levels: freight unit (=FU, such as container, ULD) and handling unit (=HU, such as pallets, bigger parts or small machines). In this method, goods/freight units are described as:

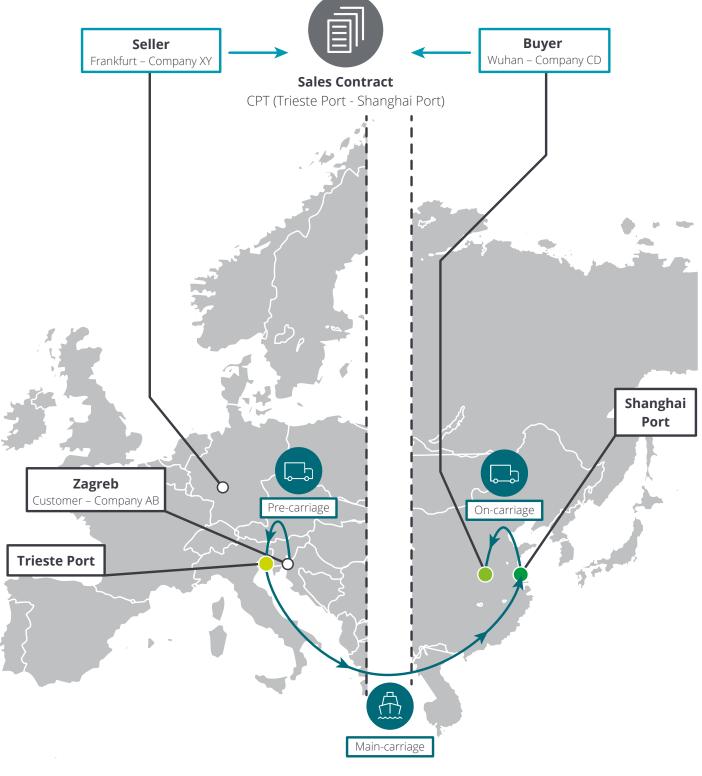
- Ready for loading
- Loaded
- Ready for unloading
- Unloaded

The illustration in chapter 6 visualizes these cluster methods.

<sup>&</sup>lt;sup>5</sup> See our Incoterms<sup>®</sup> 2020 overview graphic in chapter 6.

<sup>&</sup>lt;sup>6</sup> This is an important legal document issued by the carrier (e.g. the shipping line) which gives information such as type, quantity and destination of goods. It serves as a shipment receipt and in addition plays an important role for the letter of credit (see further details in Chapter 4 on FCA and LoC). Furthermore, the original serves as a document of title of goods: whoever possesses the documents owns the goods.

#### Fig. 2 – Geographical Supply Chain Seller – Buyer (CPT – Port of Load – Port of Discharge)



**Trieste Port** – Place of Incoterms<sup>®</sup>-Delivery (Risk)

- Buyer's Premises, Wuhan (Final) Place of Destination
- Shanghai Port Place of Incoterms<sup>®</sup>-Desitnation

# 2. Incoterms<sup>®</sup> Example/ Use Case

Having gained a basic understanding of Incoterms<sup>®</sup>, we now turn our attention to the role of cross-functions and cross-parties using the previous CPT example.

#### CPT – Trieste Port, vessel – Shanghai Port, vessel

- Seller = Company XY in Frankfurt, Germany
- Buyer = Company CD in Wuhan, China
- Port of Load = Trieste, Italy, vessel
- Goods located at = company XY's customer in Zagreb, Croatia
- CPT = Carriage Paid To
- Place of Delivery = Trieste Port
- Place of Incoterms<sup>®</sup>-Destination = Shanghai Port, vessel

The seller and buyer determine the Incoterms<sup>®</sup> rules in their sales contract. (See Fig. 3)

The seller must organize transport and pay for freight costs until the vessel arrives at Shanghai Port. Once the container is loaded on the vessel at Trieste Port<sup>7</sup>, the buyer bears the risk for damage or loss of goods. The buyer must organize transport from Shanghai Port onwards.



Contract level 1



In keeping with their contractual obligations, the seller contracts freight forwarder 1 (FF) to arrange pre-carriage and main-carriage (pre: up to the port, main: from port to port) and the buyer contracts FF 2 to arrange on-carriage from the unloading port to the final destination.

FF 1 does not own trucks or vessels, so FF 1 outsources this task to Carrier 1 = trucker and Carrier 2 = shipping line. In addition, FF 1 manages documents handling, customs export declaration, potential (security) filings, etc. Carriers 1 and 2 invoice the freight costs to FF 1. FF 1 passes them on to the seller, adding a margin and logistics costs, e.g., for handling customs, filing. etc. FF 2 subcontracts the transport to Carrier 3 and provides additional support with customs administration and potentially also import clearance (then acting as the so-called broker).

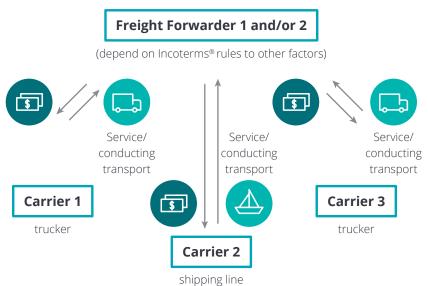
#### Fig. 4 – Seller & Buyer – Freight Forwarder(s) relationship (high level) Contract level 2a

(depending on Incoterms<sup>®</sup> rules, 1 or 2 freight forwards could be contracted)



#### Fig. 5 – Freight Forwarder – Carrier relationship (high level)

Contract level 3a



Based on this information, we can already answer in part the following introductory questions from chapter 1 for CPT – Trieste Port – Shanghai Port:

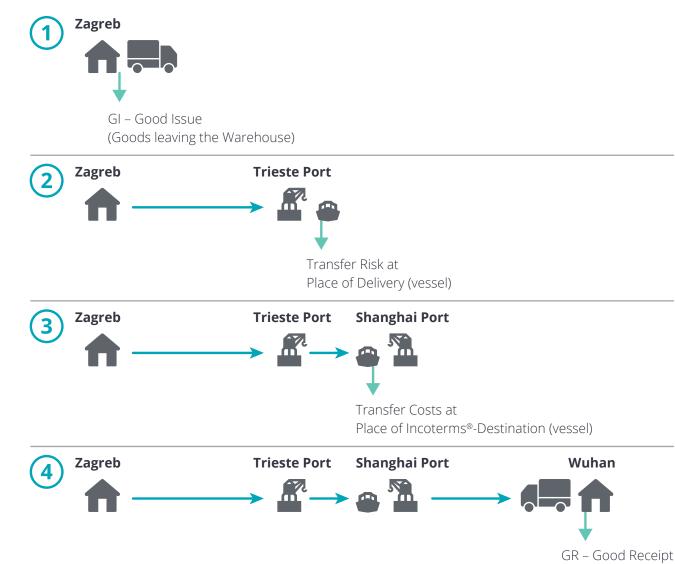
- Who bears the risk if the goods are damaged during transport?
  - The seller until Place of Delivery (Trieste Port, vessel) and then the buyer.
- Which freight costs are paid by the seller/ buyer?
  - The seller has to pay for pre-carriage and main-carriage until the Place of Incoterms<sup>®</sup>-Destination (Shanghai Port, vessel), and then the buyer.

- Does the seller have to contract insurance cover against the buyer's risk?
  No (to be agreed on in CIF, CIP).
- How many freight forwarders do the seller and the buyer contract?
  One by the seller, one by the buyer.

In order to answer any further questions, we will provide further input in the following chapters. Please use the supply chain location and date table to the right as a reference for subsequent chapters.

The following graphic serves as an additional visualization.

#### Fig. 6 - Supply Chain Seller - Buyer (CPT - Port of Load - Port of Discharge)



#### Fig. 7 – Important Supply Chain Places and Dates

relevant supply chain point	based on example	process	process impact meaning
Legal Place of Sales	• Place = Frankfurt, Street ABC	• Legal party who holds the liablility of	
(does not have to be exporter)	• Date = date relates to Place of Delivery Date	<ul><li>the sales, selling party.</li><li>e.g. Invoicing</li></ul>	different place, where the goods are physically stored.
Place of Origin	• Place = Zagreb, Street XYZ	Goods are collected	(i) This point in time can serve as one
1	• Date = Goods Issue	Cargo leaves shipper's warehouse	of the three determinants for 3-way- match (automated control for revenu recognition)
Place of Delivery	<ul><li> Place = Port Trieste, on vessel</li><li> Date = Shipped on Board</li></ul>	<ul> <li>Seller is liable up to this point for damage &amp; loss</li> </ul>	Risk transfers from seller to buyer (i) transfers of ownership
	time stamp on BoL	<ul> <li>When cargo reaches this agreed Named Place</li> </ul>	(i) earliest point in time for material invoice issue date
		("Proof of Delivery Date 1" in sense of Place of Delivery)	(i) earliest point in time relating to potential adjustments of payment terms
			(i) point in time for revenue recognition
			<ul><li>(i) potential indicator for transfer of the power to dispose over the goods from the VAT perspective</li><li>(i) and other</li></ul>
Place of Incoterms®- Destination	<ul> <li>Place = Port Shanghai, on vessel</li> <li>Date = ATA (Actual Time of</li> </ul>	<ul> <li>Seller to organize transport up to this point</li> <li>ATA time stamp on seller's freight</li> </ul>	Costs transfer from seller to buyer (i) freight cost calculation is determined for pre-,main- and on-carriage
	Arrival)	forwarder's Proof of Delivery (signed BoL, Packing List, Track & Trace time stamp) ("Proof of Delivery Date 2" in sense of Place of Incoterms®-Destination)	<ul> <li>(i) potentially customs disbursement costs apply and are relevant for invoicing from freight forwarder to seller/buyer</li> </ul>
			(i) potential determination of the transport initiative for the main carriage for VAT purposes (collect or prepaid Incoterms <sup>®</sup> rules)
Place of Destination	• Place = Wuhan, Street ABC	Goods are delivered	Buyer can make use of goods
(4)	• Date = Goods Receipt	<ul> <li>Cargo arrives in buyer's warehouse/ at final destination ("Proof of Delivery Date 3" in sense of Place of Final-Destination)</li> </ul>	
egal Place of Purchase	• Place = Wuhan, Street ABC	• Legal party who holds the liablility of	Buyer can make use of goods.
does not have to be mporter)	• Date = Goods Purchase	the purchases. Ordering party.	Note: The buyer may be located at a
		<ul> <li>Various. e.g. Payables Invoice pos- ting date, payment terms related payment run date etc.</li> </ul>	different place from where the goods are stored.

# Power of the Hidden Champions

The fact that Incoterms<sup>®</sup> have such diverse and wide-spread impact areas is what makes them so powerful, whether they explicitly determine processes or have a more indirect influence. In addition to the basics introduced in chapter 1, the goal of this chapter is to give practical insights into their many areas of application.

#### 3.1. Legal

Generally speaking, Incoterms® Rules are not codified law. The binding set of laws for Incoterms® rules at the national level, e.g. within Germany, is the German Civil Code (Bürgerliches Gesetzbuch, or BGB) and at the international level is the United Nations Convention on Contracts for the International Sale of Goods (CISG). Art. 14 CISG and Art. 11 CISG are particularly relevant for this paper, the first one referring to the conclusion of a contract itself, while the latter outlines the requirement as to form.

In terms of concluding a contract, we must consider the following: depending on the context in which Incoterms® rules are used, either the relevant national laws on the conclusion of a contract apply (e.g. §§ 145 et seqq. BGB) or – in the absence of provisions to the contrary – the rules and regulations of the CISG, in particular Art. 14 et seqq. CISG, shall apply in the international context. In both cases, the offer must be sufficiently specific for the other party to accept it (e.g., goods, quantities and prices must be defined or at least ascertainable).

With regard to the requirement as to form, we should note that neither German national law nor the regulations of the CISG (see Art. 11 CISG) mandate that regular purchase contracts must be concluded in writing or stipulate any other formal requirement.

Since the Incoterms<sup>®</sup> rules do not possess the legal status of a statutory provision, but are rather standard business clauses drawn up privately, the contracting parties were able to apply these new conditions to their contractual relations even before the official entry into force of the last update of the Incoterms<sup>®</sup> rules by the ICC on 1 January 2020.

In order to apply the Incoterms® rules, you must first ensure that you use the correct naming convention (as outlined in the previous chapter) and specify which version of the Incoterms® rules were used for the rule in question. For example:

#### CPT – Trieste Port specified place – Shanghai Port specified place – Incoterms<sup>®</sup> 2020

Incoterms<sup>®</sup> rules can be altered where necessary, but there is a potential for risk in doing so. If, for instance, you want to adjust how costs are allocated, you have to state this very clearly in the contract and you might want to vary the Place of Delivery as well.

As one of its major advantages, contracting parties can use Incoterms<sup>®</sup> rules to clearly state which party is liable for loss or damage, so as to avoid expensive court cases. If, however, there are issues with the sales contract itself, Incoterms® rules cannot provide support, as they are only part of the contract, not a substitute for the sales/purchase contract. Other parameters that Incoterms® rules do not determine need to be defined in a sales contract. For instance:

- Information on the time, place and currency of payment
- Potential legal remedies in case of a breach of contract
- Effect of sanctions and import/export prohibitions
- Domestic or international law applicable to the contract (e.g. CISG)

Even within a core logic of the Incoterms® rules, there are other matters to define. For example, in the case of FCA, a seller has to provide evidence that the goods have been delivered. The contract of sale should specify the exact form this evidence should take. It could be a freight forwarder's Bill of Lading or just a signature on the commercial invoice.

We will address the legal requirements relating to Receivables, Invoice Creation and Taxation in later sub-chapters on Audit & Assurance and Tax.

## 3.2 Financial considerations from a restructuring perspective

Incoterms® rules primarily determine which party has to pay what amount of freight costs, service taxes, import taxes and duties (customs disbursements) and are therefore seen as a supplement or amendment - but not a replacement - of relevant sales law. Regulatory areas not covered by the Incoterms® rules (e.g., the transfer of title or the consequences of a breach of contract) shall be governed by express conditions in the purchase contract or by the law underlying this contract. These types of costs can all have a strong impact on the sales margin per item if they are not correctly factored into the full cost calculation. Likewise, they can also influence cashflow positively or negatively during the procurement process. Incoterms<sup>®</sup> rules have so far received little attention as part of the debate on operational and financial restructuring. This is quite astonishing given that logistics costs (storage, transport, picking and handling) accounted for at least 9 percent of the gross domestic product of industrialized countries in 2018 (Statista, 2019), with approximately half of these costs being freight-related (Prof. Hofmann et al., 2012). This therefore begs the question whether Incoterms<sup>®</sup> rules can be used as a lever for companies in a profit or liquidity crisis.

#### Saving Potential (buyer and seller) Freight Costs

From the seller's perspective, the objective is to pay as little for freight as possible and to have as little risk as possible for insurance claims due to damage or loss. As a consequence, the recommendation would be EXW for domestic sales or FCA seller's premises for cross-border sales. These Incoterms®rules allow buyers to exploit a wide range of efficiency potential to reduce the overall costs of the shipping process. Efficiency can be improved through labor optimization, choice in mode of transport and, of course, the ability to maximize payload, load consolidation and backhauls, among other things.

From the buyer's perspective, you might think that the most ideal Incoterms® rule for saving freight costs is DAP buyer's premises, as the seller is responsible for organizing transport to the buyer's location. However, losing the ability to merge buying power with logistic service providers in order to optimize unit rates is a downside. What is more, the seller's sales surcharge, which is priced into the sales price, is often higher than the pure freight costs for own pickup, since the seller will often add shipment related costs to the pickup costs (handling charges, cleaning, etc.). As a result, DAP would be the cashsaving method of procurement in the first instance, but not the best for its own input margin in most cases. If necessary, by choosing a suitable Incoterms® rule, the company could improve its own margin (by reducing freight costs) or, on the contrary, boost its own liquidity by expanding payment terms using, for example, DAP as an Incoterms® rule.

#### **Customs Disbursements**

The ultimate buyer's Incoterms® rule could be DDP buyer's premises, indicating that the seller is responsible for organizing transport to the buyer's location as well as all the customs charges. These latter charges can be quite substantial, often many times higher than the overall freight cost. It is therefore common for buyers to use their LSP as a bank and ask them to pay customs charges to government entities on their behalf. The freight forwarder's conditions are sometimes better than the government's strict payment terms and interest charges.

That said, DDP should only be chosen after carefully considering these and other reasons, including the seller's ability to carry out import formalities in their own name.

#### 3.3 Tax

Incoterms<sup>®</sup> rules are relevant to tax for various reasons.

Particularly in terms of VAT, the Incoterms® rules are relevant. VAT is not generally supposed to become a cost element for transactions between VAT payers (except for businesses rendering certain VAT-exempted services like healthcare, education, financial transactions, etc.). However, there may be adverse consequences such as the administrative burden and the lack of cashflow even for fully compliant businesses.

The chosen Incoterms<sup>®</sup> rule for the supply of goods in this context might have an impact on the VAT treatment of the transaction, the determination of the party responsible for VAT payment in a certain jurisdiction as well as the ability to recover VAT paid for certain transactions.

While the Incoterms® rules are relevant for the VAT taxation of the traded goods between seller and buyer, indirect taxation issues may also arise for freight charges of the forwarding agent to seller or buyer. For example, destination terminal handling charges may be charged with local taxes and become a cost that is ultimately borne by the supplier or the buyer of the goods. This is therefore an issue worth considering when agreeing Incoterms® rules.

Incoterms® rules (may) also impact direct taxation as well, especially with regard to income tax. Depending on the tax regulations in the respective location and the applicable measures in place to avoid double taxation (unilateral measures as well as those from double taxation treaties), there are two specific Incoterms® rules at issue that may affect direct taxation:

- the determination of the time and the place of the change of ownership and
- the inclusion or exclusion of incidental costs for the purchaser.

These specifications need to be taken into account from a direct tax perspective as they may influence ...

- ... the risk of an (unwanted) creation of permanent establishments (PE) in the country/countries where the legal title is transferred. This may result in a limited income tax liability in that respective country.
- ... the valuation of goods purchased including or excluding incidental costs versus treating those costs as an element of the direct expenses. The initial valuation will – of course – influence (future) depreciation as well.
- ... the potential for imposing withholding taxes for certain elements of the payment during the transaction (e.g., services provided in addition to delivery of goods, financing, capital gains).

In the following we will focus on the VAT implications for traded goods between seller and buyer.

## Impact of Incoterms<sup>®</sup> rules on chain transactions

Successive sales by several entrepreneurs with multiple transfer of ownership on the same item are called "VAT chain transactions". The goods have to be moved directly from the first supplier to the last purchaser during the transport or dispatch. These particular transactions are referred to in the Incoterms<sup>®</sup>2020 rules as "string sales". When it comes to cross-border chain transactions, the parties must determine which country's VAT rules to apply and whether the goods are zero-rated for VAT. Under EU VAT law, only one of the sales transactions in the chain can qualify as zero-rated for VAT, i.e., as an export or as intra Community supply.

#### Example 1

A producer in France sells a machine to a German trading company. The German trader sells the machine to the final purchaser in the US. The machine is dispatched from the plant in France to the final purchaser in Louisville, Kentucky.

We must analyze whether to apply French VAT (the country of dispatch) if the sales transactions by FR and/or DE are zerorated and which of the parties is recognized as the VAT payer for the transaction, which may result in VAT reporting obligations in France for either party.

To determine the place of supply for VAT purposes, the decisive issue is generally where the parties transfer the power to dispose the goods. While the "power to dispose" is not equal to the legal title and depends on factual circumstances, it is difficult to determine this place in practice. Several EU countries therefore consider the party who initiates the dispatch of the goods and the location at which the shipping risk and costs are shifted between the parties involved.

This is where Incoterms<sup>®</sup> rules come into play: by defining clear rules for the risks and costs of transport, Incoterms<sup>®</sup> rules are broadly accepted for the purposes of determining the place of supply for VAT.

## Fig. 8 – Chain transaction FR – DE – US



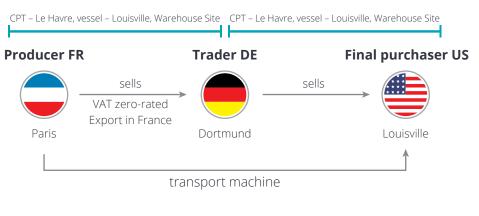
#### Example 1 (continued)

In the case that FR sells under the Incoterms<sup>®</sup> rule CPT – Le Havre Port, vessel – Louisville Plant, FR initiates the dispatch of the goods in the sales transaction and FR's export supply from France is zerorated for VAT.

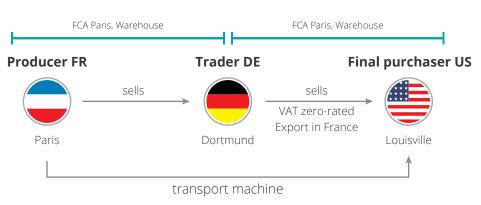
If FR and DE sell FCA Plant Paris, the initiative for the dispatch of the goods is allocated to the sales transaction by DE to US. FR has to charge French VAT for the sales transaction to DE. DE must register for VAT purposes in France and must report its export supply from France as zero-rated for VAT.

However, there is a lot of uncertainty when agreeing on the Incoterms<sup>®</sup> rules if one of the intermediate parties in the chain assumes the risk and costs of the freight.

#### Fig. 9 – Chain transaction producer pre-paid Incoterms<sup>®</sup> rule (CPT)



#### Fig. 10 - Chain transaction producer collect Incoterms® rule (FCA)

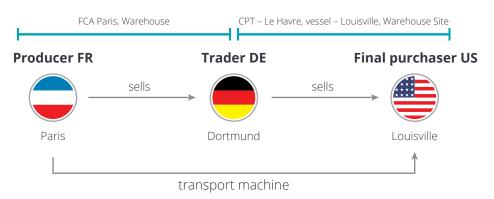


#### Example 1 (continued)

If FR sells under the term FCA Paris Warehouse and DE sells under the term CPT – Le Havre Port, vessel – Louisville Plant, the initiative for the dispatch of the goods can either be allocated to the sales transaction by FR to DE or by DE to US. Depending on the local rules, VAT reporting requirements may vary for each party.

The parties will need additional criteria, such as the use of the VAT ID number by the intermediate party, to determine the VAT consequences.

#### Fig. 11 – Chain transaction collect and pre-paid Incoterms® rule



#### Specific Incoterms® rule: DDP

The Incoterms<sup>®</sup> rule DDP has special implications in the export business from the perspective of VAT: by shifting the import obligations to the seller in the destination country, the seller usually has to both pay import VAT and comply with VAT reporting obligations in that country.

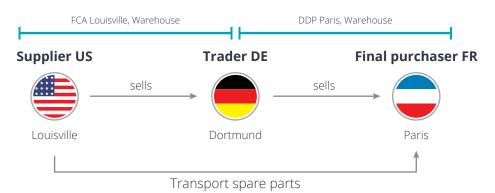
In many countries, the ability to potentially recover this import VAT is contingent on the seller having the power to dispose over the goods at the point of import. This is often a point of debate between tax authorities and VAT payers.

#### Example 2 (variation of example 1)

The supplier US sells spare parts to the German trading company under the term FCA Louisville. DE sells the machine to the final purchaser FR in Paris under the term DDP Paris. The spare parts are dispatched from Louisville to the final purchaser in Paris.

Under this Incoterms<sup>®</sup> rule, DE will be liable for customs duties and import VAT in France, i.e., it must pay the import VAT there and has an input VAT credit position. The sale to FR is a local supply which is subject to French VAT. DE needs to fulfil VAT reporting obligations in FR and may have an administrative burden as a result.

#### Fig. 12 - Chain transaction including DDP



#### Requirements in the IT environment

The ERP system must be able to allocate the correct VAT codes to the purchase and sales transactions in order to account for VAT in the correct jurisdiction, to apply zero ratings under certain conditions and to issue invoices that take local requirements into account. In other words, you need a tax code determination logic. A logic such as this would contain various parameters like: origin and destination of goods, the location of the party receiving the invoice, Incoterms® rules, direction of trade (export, imports or domestic), tax group material and business partner, also certain regional requirements. It should be noted that even leading ERP software solutions do not provide a tax code determination logic in its default settings and must be programmed with individual settings or other solutions.8

#### Example 1/Figure 9 Chain transaction producer pre-paid Incoterms®rule (CPT), (continued):

From the viewpoint of FR, the parameters (i) sale under the term CPT and (ii) the shipping address outside the EU should qualify the sales transaction as an export supply from France that is zero-rated for VAT.

Obviously the complexity of the logic increases significantly with chain transactions, because we must consider the flow of goods in its entirety and with all the parties and parameters involved. In this context, Incoterms<sup>®</sup> rules are of significant relevance for tax code determination.

### Impact of the updated Incoterms® 2020 rules on VAT ...

As Incoterms<sup>®</sup> rules are key parameters for the tax code determination for VAT, the use of different Incoterms<sup>®</sup> rules from 2020 will require VAT payers to review their existing tax code determination logic.

#### ... and reciprocal impact of VAT legislative changes on Incoterms® rules to be used

With its so-called "Quick Fixes", the EU introduced a package of significant changes to VAT law that are due to be implemented in local VAT law in all EU member states by 2020.

Among other things, the Quick Fixes provide strict rules regarding the determination of cross-border chain transactions for goods that are zerorated for VAT, using VAT ID numbers and the country in which the cross-border transport of goods was initiated, which effectively rely on the Incoterms<sup>®</sup> rules used for the transactions.

In other words: VAT payers participating in chain transactions should review their tax code determination logic under consideration of the changes in the legal framework for VAT with a special focus on the Incoterms<sup>®</sup> rules.

## 3.4 Global trade advisory – import, export and export controls

It goes without saying that numerous obligations and responsibilities arising from EU and national (member state) provisions govern import, export and export controls. These provisions have to be considered in every case of cross-border trade, since Incoterms® rules, theoretically, assign the obligation for customs clearance to one of the parties. From the seller's view this obligation is assigned as follows:

Incoterms®2020	Obligation of the seller to clear the sales item for export?	Obligation of the seller to clear the sales item for import in the country of destination?
EXW	Νο	No
FCA	Yes	No
FAS	Yes	No
FOB	Yes	No
CFR	Yes	No
CIF	Yes	No
DAP	Yes	No
DPU	Yes	No
СРТ	Yes	No
CIP	Yes	No
DDP	Yes	Yes

For the purpose of this overview, we would have to include the following in a brief list of the fundamental issues at the 'intersection' between Incoterms<sup>®</sup> rules on the one hand and customs/export control provisions on the other:

- In our consulting experience, the Incoterms® rules mentioned on invoices or in agreements often do not reflect the actual handling of the transaction. The Incoterms<sup>®</sup> rules agreed between the parties involved in cross-border sales transactions are therefore not binding when assessing which parties have which responsibilities in terms of customs/ export control law (for their legal status please see chapter 3.1 Legal). It is the facts that are decisive, e.g., the fact that the agreement between seller and buyer refers to EXW alone does not allow us to conclude that the buyer is the exporter for the purposes of customs law and export controls in this case.
- The only way to assess the roles of the exporter for the purposes of customs and for export controls is based on the related autonomous legal definitions and provisions in combination with the facts. These parameters can however be misinterpreted and falsely applied.
- Assessing the role of the exporter for VAT purposes and any related VAT exemptions upon export is subject to yet another set of autonomous rules (see section 3.3 Tax above) and cannot simply be deduced from the exporter for customs purposes.
- Under the Incoterms® rule DDP (assuming that this reflects the facts), the seller assumes the obligation to declare the goods for import into the country of destination, although his knowledge of the local customs provisions may be rather limited.

#### **Customs clearance for export**

As introduced briefly in the points above, there is great potential for conflict between the obligations arising from the agreed Incoterms® and the customs-related obligations of the parties. This is often true for exports, since not only (mainly EU) customs law provisions, but also both EU and national export control requirements apply. It is important to take into account that these two different legal regimes (and two different legislators!) may have conflicting objectives.

We can best illustrate the potential conflict between Incoterms<sup>®</sup>, customs law and export controls provisions using the Incoterms<sup>®</sup> rule EXW in the following example below:

#### Customs

If German Seller A sells EXW to a US Buyer B<sup>9</sup>, the most simplistic conclusion would be to make Buyer B the exporter.

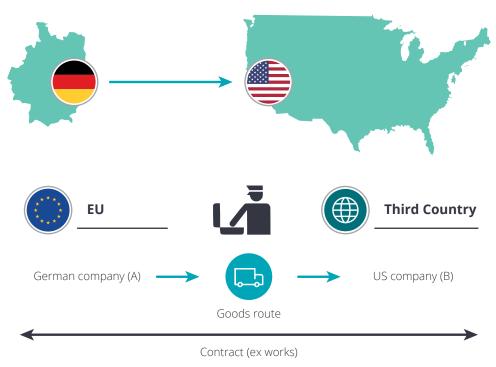
According to the way the exporter is defined in the UCC-DA (Union Customs Code Delegated Act), Buyer B, as a non-EU establishment, cannot take on the role of the exporter for customs purposes. Instead, he must engage an EU-established freight forwarder to act as the exporter and to assume the related responsibilities in exchange for a supplemental fee. Otherwise, Seller A may be appointed as exporter either by assignment of the obligation to export the sales item to non-EU territory or by becoming the EU party of the "export agreement" where German Customs holds this view (this is a risk), Article 1 (19) (b) (ii) UCC-DA.

Pursuant to Article 1 (19) (b) (i)

UCC-DA, in cases where the exporter is not a private individual transporting the goods in his personal baggage, it is any person who is:

- established in the customs territory of the EU, and
- has the power to determine and has determined that the goods are to be taken out of the customs territory of the EU.





#### **Export Controls**

Moreover, due to the fact that Seller A is party to the contract with a non-EU consignee (so-called export contract), it is Seller A who is responsible for any obligations related to export controls and any shortcomings that may arise. These obligations are especially:

- the correct classification for export controls purposes,
- the timely obtainment of export licenses for restricted goods (esp. dual-use and military goods) from the national authorities before the actual export takes place,
- the screening of so-called sanctioned party lists as well as
- the compliance with embargo provisions.

In short, relying on EXW as the Incoterms® rule for the underlying sales transaction will not only lead to considerable reorganization efforts, but may quite possibly also have hidden the obligations related to export controls because seller A 'trusted' the Incoterms® rule EXW. It is important to note that violations of these obligations can be sanctioned rather harshly, e.g., involved case workers in the dispatch department or a board member in charge of export controls (so-called "chief export controls officer") can be personally prosecuted under criminal law. This example also shows that, depending on how the exporter is defined, the business partners involved may have the flexibility to designate the entity that has to act as exporter. This is true as long as that entity complies with the definition of 'exporter'. The business partners would only have to be aware of the related risks.

#### **Customs clearance for import**

On the import side, there are of course risks of non-compliance as well as the obvious risk of import charges, especially import duties and VAT on import, and their post-clearance recovery. It is this latter risk that has a major influence on the way sales prices are calculated. As a result, the parties must carefully consider who will assume the responsibilities of the customs declarant. This is true for transaction parties not domiciled in the European Union, e.g., if the seller acts as the customs declarant under DDP conditions:

Under DDP conditions, the seller is responsible for the import and must consider that the seller's knowledge of the local customs provisions in the destination country is limited in most cases.

Third country sellers are also not legally allowed to handle the import declaration (i.e., to act as customs declarant). This leads to several difficulties:

The seller has to appoint someone (i) located in the European Union and (ii) responsible and liable for the import into the European Union. In other words, the seller has to appoint an indirect representative. Import freight forwarders, however, might often refuse to act as an indirect representative for a third country seller, as they do not want to assume responsibility and liability for import duties, etc. Based on our consulting experience, we often find that they will instead act on behalf of the buyer, without his knowledge. The liability in this case rests with the buyer from a legal standpoint, in violation of the agreed Incoterms®rules.

It is therefore vital for the contracting parties to give these freight forwarders very precise instructions and to monitor them closely in order to ensure the correct handling of the customs declaration, but this is rather difficult to accomplish in practice.

Determining the correct customs value for the import declaration is quite challenging due to such complex factors as required costs, reduction factors, such as freight costs incurred for transportation beyond the point of entry into the EU customs territory, etc.

As a consequence, the overall cost structure of the DDP seller might make it impossible in the long run to compete with those sellers who do not assume the obligation to declare the goods for import in the destination country. This is particularly when the thirdcountry sellers – due to not being registered locally for VAT purposes – are probably not able to deduct the VAT on import in the country of destination (see chapter 3.3).

#### 3.5 Accounting

#### German Generally Accepted Accounting Principles (German GAAP)

According to German GAAP, revenue is recognized when the sales transaction has been realized (Section 252 (1) no. 4 of the Commercial Code), i.e., when the risk of accidental destruction and accidental deterioration passes to the buyer. According to German civil law, this risk passes to the buyer upon delivery of the goods sold (Section 446 of the German Civil Code). Contracting parties may agree to deviate from these regulations, e.g., by agreeing on Incoterms<sup>®</sup> rules that specify the date when the risk of loss or damage to the goods will transfer. From an accounting perspective, this is the date when revenue is recognized by the seller and the goods are derecognized in the seller's books and recognized in the buyer's books.

If the date when risk transfers is determined by the agreed Incoterms® rules, it may differ from the date captured in the system, e.g., the goods issue date (when the warehouse confirms that the goods have been dispatched and left the warehouse). This may lead to incorrect accounting if the ERP system uses the goods issue date to trigger the accounting entry. The following examples illustrate this.

#### EXW – Goods Dispatch Date > Transfer of Risk Date

According to the EXW clause, the risk for damage to or loss of the goods transfers from the seller to the buyer as soon as the seller deposits the goods at the seller's premises, in which case the buyer must load the cargo onto the means of transport when it arrives.

Assuming that the buyer will need a day or two to organize a carrier to pick up the consignment, the transfer of risk date appears to be earlier than the date at which the goods physically leave the warehouse (goods dispatch date).

In this example, the seller informs the buyer that the goods are ready for pick-up at the seller's warehouse in Zagreb on December 30, 20X1 and this action triggers the risk transfer from the seller to the buyer.

On January 2, 20X2, the carrier subcontracted by the buyer picks up the goods at the seller's warehouse, which means that the goods have physically left the seller's warehouse (goods issue date).

On January 29, 20X2, the goods arrive at the buyer's warehouse in Wuhan<sup>10</sup> (goods receipt date).

## Accounting difficulty for the seller in this case

Still assuming that revenue is recognized when the ERP system records the goods issuance, the revenue as of December 31, 20X1 would be understated. Similarly, the seller's inventory would be overstated as per December 31, 20X1. Although the seller has already delivered the goods to the buyer on December 30, 20X1 based on the Incoterms<sup>®</sup> rules, the inventory has not been derecognized from the balance sheet and revenue is not recognized before the goods leave the warehouse on January 2, 20X2.

<sup>10</sup> As a result of various aspects, and that of Global Trade in particular, as described in the previous chapter, the CPT example from chapter 2 would have to be modified so that EXW is not used for international trade, but instead for domestic or intra-customs-community trade only. As an example, EXW has been used in conjunction with the chapter 2 example from an accounting perspective only.

#### CPT port of loading, vessel-buyer's premises: Goods Issue Date < Transfer of Risk Date

If, for example, CPT is used, two named places play a role. The first one determines the Place of Delivery (transfer of risk), and the second one determines the Place of Incoterms®-Destination (transfer of costs) (see chapter 1.2 Naming Convention). If the first named place is not the seller's warehouse, the seller may face difficulties, as the transfer of risk date is later than the goods issue date.<sup>11</sup>

In our example, the contract between the seller with a warehouse in Zagreb and the buyer in Wuhan states CPT Trieste Port, vessel-buyer's premises Wuhan. The seller dispatches the goods on December 30, 20X1 (goods issue date) in Zagreb. On January 2, 20X2, the goods are loaded onto the vessel at the port of loading which is Trieste Port (transfer of risk date). On January 27, 20X2 the goods arrive in Shanghai Port. On January 29, 20X2, the goods arrive at the buyer's warehouse in Wuhan (goods receipt date).

#### Corresponding accounting difficulty for the seller:

If the goods issue date is used to trigger revenue recognition in the seller's ERP system, the revenue as of December 31, 20X1 (balance sheet date) would be overstated and the assets would be understated. Revenue was already recognized and inventory derecognized on December 30, 20X1, even though the transfer of risk did not occur until January 2, 20X2.

#### Fig. 14 - Place of Delivery - Risk Transfer - Goods Issue



#### Fig. 15 - Place of Delivery - Risk Transfer - Vessel Port of Load



#### IFRS

Under IFRS, the transfer of risk according to Incoterms® rules is not a sufficient criterion for recognizing revenue, because the relevant Standard IFRS 15 Revenue from Contracts with Customers is based on the control concept. An entity shall recognize revenue when (or as) the entity satisfies a performance obligation by transferring a promised good or service (i.e. an asset) to a customer. An asset is transferred when (or as) the customer obtains control of that asset (IFRS 15.31). Control of an asset refers to the ability to direct the use of, and obtain substantially all of the remaining benefits of that asset, including the ability to prevent others from doing so (IFRS 15.33). For performance obligations to be satisfied at a particular point in time, the entity has to determine at which point in time the customer obtains control of the promised goods. The transfer of significant risk and rewards of ownership of an asset - which equals the transfer of risk as defined in the Incoterms® rules- is only one indicator to consider in determining when control

has been transferred. Depending on the Incoterms® rules used, it may be necessary to rely on the original shipping documents as a means of proof of ownership of the related goods. In these cases, control is not transferred until the seller receives those documents. This date might be a few days after the date on which the risk transfers, (e.g., CPT – Port of Load Trieste (risk transfer) – Port of Destination Shanghai (cost transfer), the transfer of control, however, would take place only once the original documents reach the buyer via courier).

### 3.6 Strategy: considerations for procurement and sales of goods

Coming back to the example of FCA seller's premises and the effort to avoid unexpected costs from the perspective of financial restructuring, we have observed such behavior in our clients in different industries and ranging from mid-sized companies to large multinationals. The relevant causes for these observations may result from the misuse of the seller as free warehousing or delays in the pick-up process, for example, due to an unreliable transport provider prone to delay, in particular for customers collecting from distant regions. This may occur, for example, when CIS region customers pick up goods in Central Europe.

These events often result in operational troubleshooting and additional cost, e.g., double-handling of already prepared shipments blocking space in the staging area of the seller's warehouse.

If such behavior is observed frequently, the company should conduct a root cause analysis to resolve potential misunderstandings at the operational level or to adjust the current customer-care strategy and change the Incoterms® rules for specific customers or customer groups. However, this would require a rigorous analysis of real profitability and may even mean the end of the relationship with nonprofitable customers.

After examining observed customer behavior and its operational implications, our focus will now shift to pricing and negotiations.

#### Sales

Sales teams need to have the right tools to properly yet pragmatically reflect the impact a specific Incoterms® rule on pricing and profitability in a sales or presales phase. Mature organizations have pricing schemes in place that factor the Incoterms<sup>®</sup> rule in question along with other terms and conditions, such as payment terms and advance payment discounts, if they are applicable, into their pricing and profitability calculations. Sales teams also need adequate support to properly add Incoterms<sup>®</sup>-specific surcharges to the product price, e.g., for packaging, transport, additional handling equipment or administrative effort, and calculate realistic margins to cover these specific efforts.

This also strengthens the sales teams' arguments in a negotiation setting. Sales teams must consider this when they calculate the real payment terms, for example, to assess internal profitability limits or to have the right answers on hand when buyers ask for prolonged payment terms.

The company should also use the Incoterms<sup>®</sup> rule on offer to highlight the company's sales strategy. For example, a seller that claims to have a "full service offer" but sells EXW would strike potential customers as very strange. While EXW or F-Incoterms® rules may be suitable for larger customers with dedicated logistics and customs processing capabilities, smaller customers, e.g. technicians or repair shops, typically require the seller to arrange transport or even, at times, to sell customs cleared, as these customers typically lack the skills and the time for customs clearance. We sometimes observe B2C businesses, where customers typically face the same limitations, referring to nonsuitable Incoterms<sup>®</sup> rules in their deliveries.

#### Procurement

On the other hand, in terms of procurement, it is important to properly reflect Incoterms<sup>®</sup> rules in sourcing decisions – together with all other terms & conditions – to ensure a comprehensive decision-making process and to properly factor in the total cost of ownership<sup>12</sup> when evaluating tenders. It is essential, therefore, for the supporting tools to properly reflect the impact of the Incoterms<sup>®</sup> rules. As already discussed for the Sales side, the combination of Incoterms<sup>®</sup> and payment terms are significant drivers for net working capital – this time focusing on the payables side.

It is also a significant lever to drive inbound logistics cost and complexity. While "delivered" Incoterms® rules reduce operational complexity for the procuring organization, these terms jeopardize efforts to reduce inbound logistics cost, e.g., by applying milk-runs or similar logistics concepts. In several industries it is already common to request prices for pick-up (suitable E/F-) Incoterms<sup>®</sup> rules as well as for delivered (suitable C/D-) Incoterms<sup>®</sup> rules to allow for informed decision-making when it comes to selecting a logistics concept or potentially changing the terms during a contract period without additional negotiations.

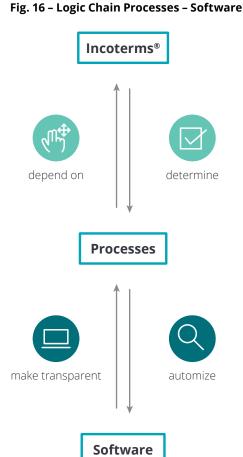
Some companies have implemented Incoterms® decision checklists for their procurement teams in order to provide hands-on support. Based on a few questions regarding product characteristics, the procuring legal entity as well as supplier information, the procurement team is clear on the options and caveats for the respective Incoterms® rules. There may even be certain Incoterms® rules that are excluded, for example several companies do not allow EXW from China for European procuring organizations to avoid overly complex and costly setups.

#### 3.7 Process Reflection in Software

The purpose of this chapter is to describe the impact opportunities and threats of Incoterms<sup>®</sup> rules in the area of software logic. To better understand why this is important, we will provide a brief overview:

- a) Incoterms<sup>®</sup> rules determine processes, processes depend on Incoterms<sup>®</sup> rules. (largely described in the previous chapters)
- b) Processes are made more transparent by modeling them in software and software helps to automate processes.

There are various potential benefits to using software, from lower failure rates caused by typos, to standardized automated process steps. Software helps to make processes and their data more transparent, serving as a basis for more efficient decision-making.



#### How can software support Incoterms<sup>®</sup> usage (opportunities)?

#### **Data Extracts**

- whether EXW is used for non-domestic or non-intra-customs-union trade
- whether buyers regularly fail to pick up cargo in time under FCA
- check on correct <sea only> terms usage

#### **Must-Have Fields**

 setting up Incoterms<sup>®</sup> 3-letter code and Named Place(s) as must-have fields helps to ensure each party's obligations are clear and avoids unnecessary follow-ups.

#### Customizing

• customized 3-letter codes in a dropdown list can help to prevent typos, such as FBO, FOB.

#### **Process Automation**

- an alert could be sent to the department manager if EXW is chosen for crossborder transactions
- based on FOB terms, the seller's ERP/ TMS<sup>13</sup> could automatically calculate the freight costs from their premises to the loading port. The buyer's ERP/TMS could automatically calculate the main-carriage and on-carriage costs, for the subcontracted freight forwarders as well.
- Based on EXW terms (collect/Customer Pickup) or pre-paid terms, such as DDP, Incoterms<sup>®</sup> rules directly influence tax determination logic, or indirectly, e.g., when the Incoterms<sup>®</sup> rules are grouped into an additional parameter such as shipping condition.

## Where are Incoterms<sup>®</sup> rules reflected in software?

When talking about software in the context of Incoterms<sup>®</sup> rules, the field is simply too vast to give a complete overview. Incoterms<sup>®</sup> rules play a role in standalone ERPs, CRMs, TMSs, WMSs, GTs, Tax Software, etc., so we will narrow our focus to the ERP and TMS environments only. The diagrams below reflect the fact that the final object on seller's/buyer's side could, for instance, be an LCL (less than container load) or an FCL (full container load) shipment, which is then handed over to the freight forwarders and finally to the carriers. In the freight forwarder's systems, seller shipments might be consolidated into further shipments/consolidations. The next level of carriers has been scoped out.

#### Fig. 17 – Software Objects at Seller and Freight Forwarder (very high level)

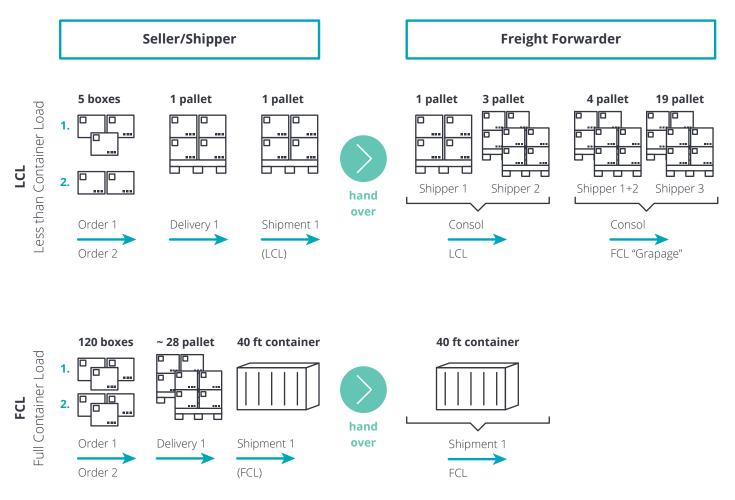


Fig. 18 - Incoterms® on Customer Master (example SAP ERP, SAP S/4HANA)

In fact, the order-level is not the initial starting point for the system; it is basically the contract between the seller and the buyer, but the impact of the Incoterms<sup>®</sup> rules can be captured in the business partner's master data, for instance.

🗭 🗈 Display Customer: Sales Area Data 💅 General Data 🛃 🛃 Customer 40015 MMM M Sales Org. м istr. Channel М ision M М Sales Shipping Billing Documents Partner Functions Billing document / Rebate pice processing Invoicing dates InvoicingListDates Delivery and payment terms Shanghai Port, vessel incoterms СРТ Business Partner: 1000039 \* Display in BP role: Customer  $\equiv$ Inco Restrictions Shipping Billing Partner Funct 🕖 🗵 🔍 🚭 🖍 Orders Inco Description Billing Documents 2000 Incoterm 2000 2010 Incoterm 2010 Subs. Invoice Proc.: Invoicing Dates: Invoice List Sched.: Delivery and Payment Terms Incoterms Version: Incoterms: CPT Incoterms Location 1: Trieste Port, vesse Incoterms Location 2: Shanghai Port, ve

If the data is maintained there, the agreed Incoterms<sup>®</sup> rule & Named Place(s) can be automatically pulled through into an order when it is created.

#### Fig. 19 - Incoterms<sup>®</sup> on Order Level (example SAP ERP, SAP S/4HANA)

6		<b>C</b>					
50			800000	0010	Purchase or	der no.	
Sold-to	party		40015		Customer, Wuh	an	
S	ales S	hipping	Billing	Docume	nt Accou	unting	(
Payer			4001	.5			
Term	ns of Delive	ery and P	ayment	/			
							-
	terms		CPT	Shangha	i Port, vessei		
	terms	-	CPT	Shangha	i Port, vessei		
	terms	-					
Inco	Standard Order: 4		Cust	omer Reference:			
Inco			Cust				
Inco	Standard Order: 4 Sold-To Party: 1		Cust	omer Reference:		Partner	Texts
Inco	Standard Order: 4 Sold-To Party: 1 Shipping Bits	000190	Cust	omer Reference: smer, Wuhan Conditions	LE-TRA X005	Partner	Texts
Inco –	Standard Order: 4 Sold-To-Party: 1 Shipping Billio Payer: elivery and Payme	000190 ng Document 1000190 int	Cust Cust	omer Reference: smer, Wuhan Conditions	LE-TRA X005	Partner	Texts
Inco –	Standard Order. 4 Sold-To Party: 1 Shipping Billi Payer: elivery and Payme Incolarms Version:	000190 ng Document 1000190 int	Cust Cust	omer Reference: smer, Wuhan Conditions	LE-TRA X005	Partner	Texts
Sales	Standard Order 4 Sold-To Pany 1 Shipping Bill Pager elvery and Payme Incotems Version Incotems	000190 ng Document 1000190 nt	Cust Cust	omer Reference: smer, Wuhan Conditions	LE-TRA X005	Partner	Texts
Inco Sales Terms of D	Standard Order. 4 Sold-To Party: 1 Shipping Billi Payer: elivery and Payme Incolarms Version:	000190 ng Document 1000190 nt CPT 0 Trieste Port, ve	Cust Cust Accounting Customer, W	omer Reference: smer, Wuhan Conditions	LE-TRA X005	Partner	Texts

If needed, changes could be made at the order or the delivery level. For example, when the agreed terms are CPT Port of Load Trieste – Port of Discharge Shanghai, the destination could be changed to Ningbo instead due to congestion in Shanghai.

The delivery contains the information based on a seller-buyer level. Here you can find the final destination of goods (Wuhan), which should not, as described in Fig. 7, be confused with the Incoterms®-Destination field (e.g., Shanghai Port, vessel).

At the shipment level, multiple deliveries can be consolidated, including cargo for various consignees as well. Here it is the master terms – and not the Incoterms<sup>®</sup> rules – that play a role at the shipment (header) level.

When moving the information to the freight forwarder, Incoterms® rules play a vital role indeed. At the shipment level in the FCL scenario, for instance, the Incoterms® rules given by the seller to their freight forwarder help them to determine how many transport legs they have to organize.

It becomes clear when talking about Incoterms® rules and how they are reflected in the software, that the terms will greatly depend on the point of view of the party involved and on the type of software being used. By the same token, there can be substantial differences in how different entities use the same software product, when it comes to reflecting the most important supply chain places and dates. Please compare with Fig. 7.

#### Fig. 20 - Incoterms® on Delivery Level (example SAP S/4HANA)

Ship-	o party:	1000055	Customer, V	Vuhan		
Processing F	Picking	Loading	Shipment	International Trade	Financi	al Processing
Shipment	Pt: 1010	) Ship	ping Point 1010	TrnsPin:	Sts: A	Open Transp.
RouteSch	ute: 0000	021 Sout	th-north Route	ShpmtBIF	Rsn:	
	rs.: 2010	ব				
Incoter		te Port, vess	el			
Inco. Lo						

#### Fig. 21 – Incoterms® on Shipment Level

Processi	ing Identifica	ation Shipr	ment Cst Cal C	Control Admini	str.				
SI	hipment Number:	1032				External ID 1:			
	Container ID:					External ID 2:			
	Description:					FA Tracking ID:			
	Shipment Route:	ZTRA01	E-TRA 1 day transi	t - Truck					
	Route Schedule: Route ID:								
eadl.	Further Date	s Stages	Partner Te	te Duration a	nd Distance	Status Tender	Addit. Data Dr	g.Goods Continu	ous Move
Jeadi.	Further Date	s otages	Partner le	xts Duration a	no Distance	Status Tender	Addit. Data Di	g.Goods Continui	ous move
St.				S., Shippin			II Inco Incoterme		
	Shipping Po	int. 100033	5 Transport C	omp. 01 Truck	400	KM 4 Direc	t. CPT Costs, in	surand ]	Trieste Port, vessel Shanghai Port, vessel

# 4. Changes 2020: What are the Threats and Opportunities?

#### 4.1 Overall Changes

The most important initiative behind the Incoterms® 2020 update has been the attempt to help users better understand the existing Incoterms® rules, in order to minimize their misuse. To achieve this, the update cleans up the legalese, restructures the book chapters and adds illustrations. These change initiatives are in part thanks to three non-lawyers out of the ten members of the Drafting Group. Newcomer Bob Ronai in particular, who owns and manages the Incoterms® Group on LinkedIn<sup>14</sup>, has brought in various further insights from operations. Along with his operative expertise, the president of an American consultancy firm and the Customs Compliance Manager from a Chinese telecommunications firm<sup>15</sup>, have contributed further to making the Incoterms® rules easier to understand from a non-lawyer perspective.

More substantive changes were made with regard to:

- Enabling different levels of insurance cover in CIF and CIP
- Including security-related requirements
- Adding clarifications in case the seller/ buyer decides to use their own means of transport in FCA, DAP, DPU and DDP
- Renaming DAT to DPU

• Adding clarification to the role and usage of Master On-Board Bills of Lading, especially in terms of the Letter of Credit (LoC) in FCA and the misuse of FOB

A less official, but very important indirect impact is the:

• stronger encouragement to use Named Place(s) Incoterms® rules

An intense debate also took place within the Incoterms<sup>®</sup> community about whether to eliminate EXW and add VGM regulations (see below for further details). In terms of EXW, the update has basically added clarification to prevent its misuse. VGM has not yet been incorporated.

#### Eliminating EXW – Ex Works

The reasons people wanted to get rid of EXW are mainly related to warehouse operations and global trade, as illustrated in a commonly used example of EXW Seller's Premises.

EXW requires the buyer to arrange for the cargo to be loaded onto their own means of transport at the seller's warehouse. That would mean the buyer's trucker would have to bring a forklift, or at least have the right equipment on hand (e.g., wearing security boots and complying with individual warehousing regulations) to load the pallets into the trailer themselves. Sellers would not appreciate strangers operating their forklifts, nor would they wish to bear the risk of any work accidents. As a consequence, sellers will tend to load the

cargo into the buyer's truck, which would make the transaction FCA in Incoterms® rules.

EXW terms also require the buyer to manage export clearance. Especially in cross-border trade, it is unlikely that the importer is familiar with the exporting country's laws and regulations, making it a bigger effort to obtain the goods and leading to a higher risk for delay and additional costs.

As a consequence, EXW may be used for domestic, e.g., road transport only.

#### Adding VGM regulations

An important change took place in July 2016 after the release of the maritime treaty SOLAS, which is the International Convention for the Safety of Life at Sea. Its purpose is to enable the shipping carrier/ shipping industry to conduct proper loading of containers on a vessel based on having been given correct information about the cargo and the container weight. If a container's weight is not correct, the container will not be loaded onto the ship, as it could be a risk to the staff during sailing, e.g., if the container load was not statically stable enough for rough weather conditions. The Drafting Group decided not to incorporate these regulations into the Incoterms® 2020 update as they were found to be "too specific and complex to warrant explicit mention".16

In the following chapters each change is described in further detail.

<sup>&</sup>lt;sup>14</sup> Source: Linkedin Incoterms® Group.

<sup>&</sup>lt;sup>15</sup> Source: Incoterms<sup>®</sup> 2020 by the International Chamber of Commerce, p. 391 following, Linkedin.

<sup>&</sup>lt;sup>16</sup> Source: Incoterms<sup>®</sup> 2020 by the International Chamber of Commerce, p.221.

## 4.2 Transport Document in FCA and its impacts

At first sight, the changes to FCA appear to be simply incorporating the common practice "sellers may get hold of MBLs" into the rule set<sup>17</sup>. It may seem to only be about fostering efficient handling of Letters of Credit (LoC details below), but the change has additional impacts that give it more significance.

First of all, let us explain the relationship between MBL and shipper in Fig. 22.

It becomes clear that the seller/buyer actually receives the House Bill of Lading from their respective freight forwarder<sup>18</sup>, and not the Master Bill of Lading. The Master Bill of Lading is a document between the freight forwarder(s) and their respective carrier(s).

So, it is not unusual that the seller/buyer does not even know which carriers have been contracted. This may be because it is not important for them to know precisely how the cargo gets to the other party – they outsource the detailed route planning to dedicated freight forwarders. Or it may be because the freight forwarders rely (usually) on adding margins on top of the purchase price originally given to them by the carriers.

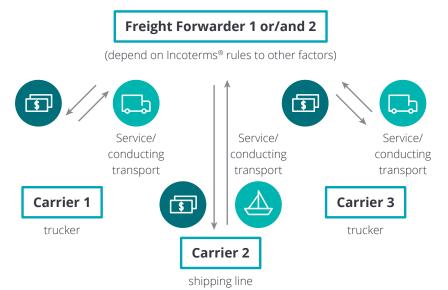
#### Fig. 22 - Carrier's, Freight Forwarder's Bill of Lading

Contract level 1 – about goods seller  $\leftrightarrow$  buyer goods (material) Seller \$ money for goods \$ money for goods

### Contract level 2 – about services (organizing transport) seller/buyer (--> FF1/(2) – HBL



Contract level 3 – about services (conducting transport) **FF1/(2) (--> carrier 1/(2)/(3) – MBL** 



<sup>17</sup> MBL is an important transport document issued by the carrier (e.g. shipping line), which gives information such as type, quantity and destination of goods. It serves as a shipping receipt and partially as a negotiable document of title to goods There are some scenarios in which the seller/buyer is more informed about the chosen shipping line/cargo handling. One scenario uses "Named Account Rates", meaning that the seller/buyer negotiates their rates directly with the shipping line – yet has their freight forwarder invoice it to them without adding a margin on that freight cost type. As these rates are based on quotas, e.g., 300 TEU<sup>19</sup>, the seller needs to keep track of how many TEUs have been shipped already at that price point.

Another scenario could rely on a letter of credit. A letter of credit is a bank guarantee of payment issued by the buyer's bank. They commit to transferring the money to the seller's bank when certain conditions are met. These conditions include handing in certain documents, such as Bills of Lading, correctly, on time and in the right order. For example, even a typo on the MBL can lead to severe consequences. Incoterms<sup>®</sup> rules must also be noted on the commercial invoice and the vessel departure date has to be within the time range stated in the LoC, etc.

#### Impact Change 1 Support correct LoC (Letter of Credit) handling

In order to avoid delays in handing in the MBL for the purposes of an LoC (e.g., because only the HBL and not the MBL is provided to seller), the Incoterms® rules now clearly state that the buyer must instruct the carrier to issue the MBL to the seller as well (If the seller and the buyer agreed to it).<sup>20</sup> This leads to various impact changes such as:

#### **Impact Change 2**

**Foster supply chain transparency** This change provides transparency when it comes to the carrier/shipping line that has been chosen. This helps the seller to understand the supply chain in more detail and may deliver a useful set of data to support Track & Trace, Supply Chain Control Tower 4PL and Blockchain initiatives.

#### Impact Change 3 Discourage the misuse of FOB for containerized cargo

This applies to FCA terms in particular, as it is the buyer in this scenario who asks their freight forwarder to organize the maincarriage and on-carriage shipping. And it is the import freight forwarder in this case, who arranges with the carriers to handle the transport. The seller merely organizes the pre-carriage, up to the Port of Load (FCA PoL). The buyer has a much stronger relationship with the carrier than the seller in this scenario (via the freight forwarder). So sellers may become worried that they do not have enough influence over the carrier, that they will not obtain the MBL at all, or too late to be able to receive the money for the goods that have already been shipped under the terms of the LoC. As a consequence, parties tend to choose FOB terms, where the risk and costs transfer once the cargo has been loaded on the shipping line's vessel.

It is not recommended to use FOB for containerized cargo, however. As described in chapter Clustering Criteria 2: Mode of Transport. FOB should be used only for <sea only> shipments. For instance, when a shipper is directly located on a river bank, they will use inland barge and then ocean vessel.

Due to the 2020 update, using FCA instead of FOB may become more popular, but there are at least two additional reasons that make FOB popular, as well as FAS, CFR and CIF for containerized, multi-modal cargo – see the following chapter on Named Place(s) Usage.

<sup>19</sup> TEU stands for Twenty Foot Equivalent Unit, which represents a small 20 ft container. A bigger 40ft container thus is 2 TEU.

<sup>20</sup> It is implied that the seller is mentioned on the transport document. This may lead to negative consequences: a) All addresses of parties who may not be direct customers of the shipping line must be registered in the latter's system. b) The seller may have to bear additional costs in the case that the buyer does not collect the cargo at the port of unloading/destination terminal.

#### 4.3 Urge to use Named Place(s) Incoterms<sup>®</sup>

There has been no official change to the Incoterms<sup>®</sup> rule "Named Place(s)", but there are two new initiatives in this regard.

One initiative is to promote FCA over FOB and another is to make the existing cluster criteria logic 1 (C-terms, Non-C-terms) clearer (see chapter 1):

#### Initiative 1

#### Encourage use of FCA over FOB

As indicated in the previous chapter, there is a main reason why the <sea only> terms (FAS, FOB, CFR, CIF) are so frequently misused for inter-modal containerized cargo:

As the Place of Incoterms<sup>®</sup>-Destination and the Place of Delivery are both relatively clear, only the three-letter code is required, without any additional text field(s).

For instance, when using FOB, it is clear that the risk and costs are transferred once the goods are loaded onto the vessel at the Port of Load. With FAS, they are transferred once the goods are next to the ship and with CFR and CIF, it is clear that the Place of Delivery (risk transfers) is the Port of Loading and the Port of Unloading is the Place of Incoterms®-Destination (costs transfer).

It is still not recommended to use those terms for containerized cargo, but all the other Incoterms® rules require Named Place(s). They need to be clearly stated behind the 3-letter code, agreed in a contract, communicated to all relevant staff dealing with those shipments, provided to the freight forwarder staff with Named Places, etc. It is important to capture and transmit additional information in cases where you cannot "just"<sup>21</sup> rely on the 3-letter code.

#### Initiative 2 Clearer structure of Named Place(s) in ICC 2020

ICC seems to foster the use of Named Place(s) Incoterms<sup>®</sup> rules (FCA, CPT, CIP, DPU, DAP and DDP) in the most recent update by clarifying what the Place of Delivery and Destination relate to in the ICC book.

In terms of legal paperwork or manual usage of Excel, Word and Email instead of dedicated ERPs, it may be possible to comply with these terms. In terms of day-to-day operations, it will require more manual effort and workarounds. In terms of the current software logic standards, it is nearly impossible. See chapter Process Reflection in Software to understand why. It is clear that we can easily configure the 3-letter codes and supply them as dropdown values. Once selected, they are technically able to trigger related processes within the logic, such as:

- If FOB, then calculate the freight costs for pre-carriage
- If CFR, then calculate freight costs for pre-carriage and main-carriage
- If DDP, set an alert within the workflow for customs specialists
- If EXW & Non-Domestic shipment, then send alert to department manager
- Etc.<sup>22</sup>

That does not, however, clarify how to use these Incoterms® rules that are "very flexible" when it comes to their related Place of Incoterms®-Destination (cost) and Place of Delivery (risk). We have to treat DAP Port of Discharge, DAP Buyer's Premises and DAP Intermodal-Terminal differently. There are, of course, steering parameters in the system that can be used, e.g., to align templates for freight cost tender with the set-up for freight cost master data, but they all require a lot more effort and clarification than the only <sea only > terms.

This is true not only in terms of process, but also technology, as the Named Place fields tend to be pure text fields in the systems where users can enter any letter, number or symbol.

An operator could accidently add a dot, could describe the Port of Discharge differently, e.g. as New York, New York Port, New York, USNYC or USEWR, etc. All of these descriptions may refer to the same place, but the software will not understand these different wordings as one and the same. It not only requires "standard" default software logic, but also workarounds that are clever but not always the most efficient methods or new Artificial Intelligence-based technologies.<sup>23</sup>

### 4.4 New Incoterms<sup>®</sup> rule: DAT becomes DPU

DPU – Delivered at Place Unloaded is basically the same as DAT. As "T" used to stand for "Terminal", it gave the impression that this code could only be used for actual Terminals, even though the 2010 edition of Incoterms® rules clearly stated that it can be used for any other place. DAT was therefore renamed with the addition of a "U" to stand for "Unloaded" at the Named Place from the arriving means of transport. This can be used, for instance, when a particular machine requires special handling for unloading by seller's staff.

<sup>21</sup> The safest and clearest way is for all parameters to be stated. Here the focus is on operational handling benefits.

<sup>22</sup> Should the date on which the goods pass these Named Places be of extraordinary interest, for example from an accounting perspective when the balance sheet date is imminent, then the matter becomes significantly more complex.

<sup>23</sup> Please note that this issue relates to Dates of the Named Place(s) as well. See 3.5 Accounting.

#### **4.5 Security Clearance**

Security clearance plays a vital role in addition to export/import clearance and it has become vastly more important since 9/11, especially in airfreight.

It led to the creation of the TSA (Transportation Security Administration), for example, as an agency of the US Department of Homeland Security and one of the leading institutions when it comes to defining air security standards and procedures through programs such as the Known Shipper Program. This helps to identify which cargo can more easily travel on passenger aircrafts, and which cargo may very likely only be transported on cargo-only aircraft. This may result in varying flight schedules and screening requirements as well as potentially different freight costs associated with a shipment.

The deadline set by the TSA for the Implementing Recommendations of the 9/11 Commission Act 2007 was originally 2011, but it took time to put some rules into practice, including piece-level screening for air and maritime cargo, and to establish international agreements between the US and its trading partners.

As a result, those changes played a rather minor role in the Incoterms® 2010 update. The 2020 update provides more clarification of the security-related obligations in the sections A4 Carriage, A7 Export/import clearance and A9 Allocation of costs in each Incoterms® section.

#### 4.6 Insurance

The changes have an impact on insurance for two Incoterms® rules: CIP (Carriage and Insurance Paid to) and CIF (Cost Insurance and Freight). As described earlier, CIF is recommended for only <sea only> shipments, while CIP can be used for Road – Sea – Road transports, among others. What they both have in common, however, is that the Place of Incoterms®-Destination and Place of Delivery are different. The seller must deliver on the (main-leg e.g. port to port) transport, even though the buyer already bears the risk for loss and damage during main-carriage (from Point of Delivery onwards, which is the Port of Load for <sea only> CIF and the Named Place of Risk for CIP).

Therefore, the buyer will want the seller to choose a trustworthy freight forwarder/ carrier and is entitled to at least request additional cargo insurance to be paid by the seller<sup>24</sup>. It should cover the price provided in the contract at a minimum, plus 10 percent. 110 percent is the common rate, as the buyer has already planned to use the goods and will suffer additional damage<sup>25</sup> if the goods are not delivered at the right quality or not delivered at all.

One of the most common and explicitly stated clauses are the Institute Cargo Clauses LMA/IUA (Lloyd's Market Association/International Underwriting Association). Insurance Cover (C) had been recommended for CIF and CIP as minimum coverage until the 2020 update, but now the seller must obtain cargo insurance complying with Clauses (A) when choosing CIP, if both parties agreed<sup>26</sup>.

## In clauses (C), only seven risks are covered:

Loss of or damage to the subject-matter insured reasonably attributable to

- Vessel or craft being stranded, grounded, sunk or capsized
- Overturning or derailment of land conveyance
- fire or explosion
- discharge of cargo at a port of distress
- collision or contact of vessel craft or conveyance with any external object other than water

Loss of or damage to the subjectmatter insured caused by

- general average sacrifice
- jettison

## In clauses (A) there are only a few risk groups that are not covered

- strike, riots, civil unrest
- insufficiency of the vessel
- war
- seven additional, separately stated risks, e.g., insufficient packaging, loss or damage caused by delay, insolvency or radioactive force.

Therefore, when choosing CIP terms, the seller might have to be aware of the higher costs associated with insurance premiums, although many companies have a framework agreement.

#### 4.7 Own Means of Transport

When arranging for carriage in FCA Non-Seller's Premises, DAP, DPU and DDP the seller/buyer can also use their own means of transport, which is to say that they manage the carriage directly, rather than just contracting for carriage. This is a more likely scenario for transport by road.

If the seller, for example, owns trucks and does not want to hire a freight forwarder or another third-party to organize and conduct the transport, the seller can take the lead, but only using Incoterms® rules where the Incoterms®-Destination and the Place of Delivery are the same. If they are not the same, the seller might drive the cargo as the "carrier", even though the buyer may have already assumed the risk.

<sup>25</sup> This information has to be proved, however.

 $<sup>^{\</sup>rm 24}$  Unless the import country does not accept insurance issued overseas, e.g. in Brazil.

<sup>&</sup>lt;sup>26</sup> In the past it was common practise that cover A be used in the case of Letters of Credit.

# 5. How To Approach

As discussed in the previous sections, the Incoterms<sup>®</sup> 2020 update may require companies to make some adjustments, but there are also many opportunities arising from its implementation. Using the new update as an opportunity to perform an overall Incoterms<sup>®</sup> check-up makes sense and the guidelines below can be used in this process as a reference.

#### a) Incorporate 2020 Changes

These adjustments include updating:

- Contracts (new, existing)
- Instructions for and monitoring of freight forwarders
- Transport insurance fees
- Validation of of document/print creation setups
- System customization such as customer master
- Process trainings

After the introduction of the new Incoterms<sup>®</sup> rule DPU, users must ensure it is added to the configurations and, where it is already contractually permissible, DAT should be deleted (in accordance with legal contracts) and replaced with DPU to avoid using obsolete Incoterms<sup>®</sup> rules.

In terms of Named Place(s) Incoterms® rules and preventing the misuse of EXW and only <sea only> terms, it makes sense to assess the relevant data sets and processes more broadly. As they will need to be updated anyway after Incoterms® 2020 rules comes into effect, it would make sense to take this opportunity to do a proper Incoterms® check-up.

#### b) Use the momentum for your own value chain

As part of an overall Incoterms<sup>®</sup>-Check-Up, it would be advisable to assess the validation bases that have been introduced across business functions within this Point of View. The following factors may have a positive impact on your value chain:

## b1) Incoterms® rules in line with their intention

Make sure that EXW is not being used for non-domestic/intra-customs-union trade, for example, and that no FOB, FAS, CFR or CIF is being used for containerized, multimodal cargo.

## b2) Incoterms® rules in line with one's own intended role in the export

For EXW contracts, check who has been assigned the role of exporter for the purposes of customs and/or export controls and make sure that the exporter understands the responsibilities associated with these roles and raise awareness for these issues in all related business functions. This may also be a good time to review alternative set-ups.

#### b3) Check your software feasibility

See if any adjustments are needed, e.g., check the tax code determination setup if Incoterms® rules have been directly or indirectly embedded in the logic of the system. Verify if the direction of transport is automatically connected to Incoterms® rules. And make sure that Place of Delivery and Place of Incoterms®-Destination are visible and usable in the system, as well as their related date.

#### b4) Financial improvement options

In terms of Place of Delivery, make sure that that it makes sense for the purposes of accounting and invoicing, as well as the three-way match.

## b5) Sales and Procurement Calculation scheme

Review the calculation schemes or the templates used for sales and procurement and adjust them where necessary. For companies that still do not have such tools in place, the new Incoterms® 2020 update would be a great opportunity to implement them.

These checks are just a selection of issues your organization should validate to ensure compliance with the new Incoterms® rule set and to ensure your organization uses the right Incoterms® rules to maximize efficiency.

## 6. Graphic: Incoterms<sup>®</sup> 2020

This chapter will provide a visualization of the new Incoterms<sup>®</sup> rules. Incoterms<sup>®</sup> in general is a highly complex topic that would be impossible to cover completely in one readable diagram. We have elected, therefore, to focus on specific key issues and to provide a guideline instead of an exhaustive explanation of Incoterms<sup>®</sup> rules overall. We would recommend that you always cross-reference the diagram with the rule book. We have made some changes to traditional presentation methods and these are explained in more detail below:

#### a) Solid vs gradient fill bars

We have used gradient fill bars to underscore that the named places may vary in these Incoterms<sup>®</sup> rules. The bar should only extend up to the maximum agreed Named Place(s).

#### b) Separate port graphic for only <sea only> terms

At first glance, you may infer that sea Incoterms<sup>®</sup> rules can be used for road-searoad as well. However, these Incoterms<sup>®</sup> rules should only be used in this way if the seller is located very close to a waterway and able to load bulk cargo directly onto the vessel, or onto a smaller vessel for precarriage (not for containerized cargo).

#### c) Added matrix of Place of Delivery and Place of Incoterms®-Destination

In order to more easily identify relevant Named Places, we have added a matrix to the right. The information is clear in the case of <sea only> terms as well as EXW and in part FCA, but in other terms explicit agreement between seller and buyer is required.

## d) Added matrix of Loaded/Unloaded status of goods

In order to more easily identify whether the cargo is supposed to be delivered loaded or unloaded, we have added a matrix to the right (relating to Cluster Method 4 in Chapter 1.3).

#### e) Insurance bar only in CIP and CIF

The seller only has the obligation to insure for the buyer's risk with CIF and CIP, thus the insurance can be found in those two terms only.

#### f) FCA two Named Place options

As FCA relates to two Named Place options, either the specified Seller's Premises or any other, this will impact whether the seller needs to place the goods at the buyer's disposal (any other Named Place) or whether the seller is supposed to load the goods onto the means of transport provided by the buyer.

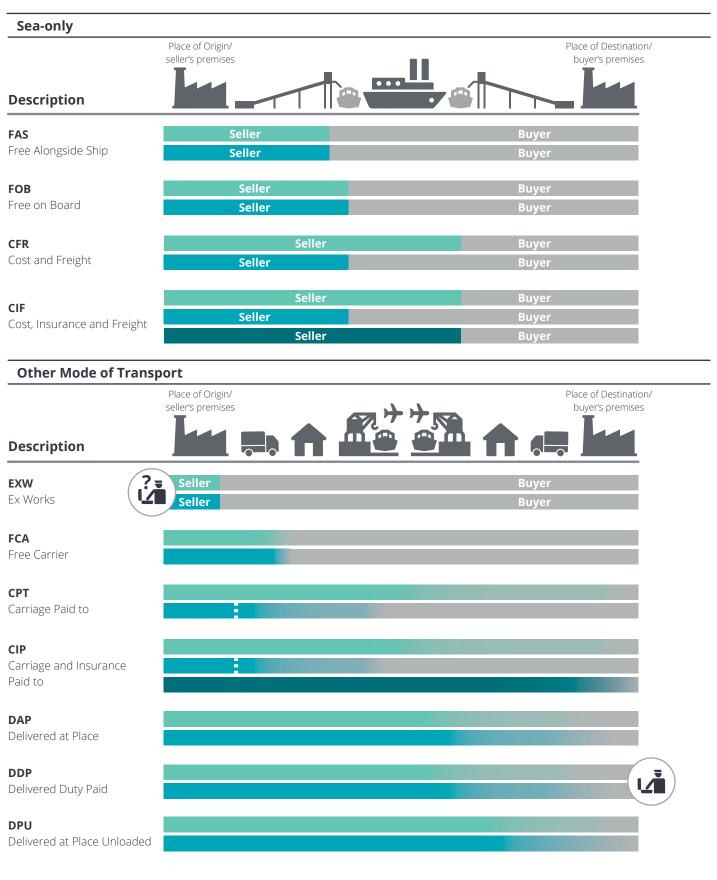
#### g) Focus on physical movement of goods when arranging the order of Incoterms<sup>®</sup> rules

DDP could be considered as the final Incoterms<sup>®</sup> rule on the list, as it is cargo that is also customs cleared, but DPU could also be the final Incoterms<sup>®</sup> rule, because even though the cargo has not yet cleared customs, it has been physically unloaded.

#### h) Customs Icon in EXW, DDP

Even with EXW, a seller can de facto be assigned the role of the exporter for customs purposes. Accordingly, he would have to assume the obligations and responsibility for customs and – as the case may be – even export controls. For DDP, this symbol will remind the seller of their obligation to handle the declaration for import in the country of destination – a jurisdiction that might not easily be understood in detail.

#### Fig. 23 – Incoterms<sup>®</sup> 2020 (Deloitte's graphical approach)



Place of Incoterms<sup>®</sup>-Destination (risk transfer)

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Additional Insurance

#### Sea-only

Place of Incoterms <sup>®</sup> -Delivery	(risk transfer)	Place of Incote	Place of Incoterms <sup>®</sup> -Destination (cost transfer		
Loaded/Unloaded	Place	Place	Loaded/Unloaded		
unloaded/ to be loaded onto vessel	(next to vessel)	at port of load			
loaded/ already loaded onto vessel	(on vessel) at	port of load			
loaded/	(on vessel) at port of	Named Place at port of	loaded or unloaded, depends on seller's account under the contract of carriage		

#### Other Mode of Transport

Place of Incoterms®- Delivery (ris	k transfer)	Place of Incoterms®-Destination (cost transfer)			
Loaded/Unloaded	Place	Place	Loaded/Unloaded		
Unloaded/Ready to be loaded onto buyer's vehicle	at disposal of buye (unclear yet often s				
Loaded/Already loaded onto buyer's vehicle	on buyer's me at seller's				
Still loaded but ready for unloading	on seller's mea other Nar				
hand over give carrier physical possession of the goods in the manner appropriate to the means of transport used	state Named Place(s) (default = when handing over goods to 1st carrier)	state Named Place(s)	loaded or unloaded, depends on seller's account under the contract of carriag		
	state Nam	ed Place	still loaded. To be unloaded by buyer from seller's means of transport.		
			already unloaded from the arriving mean of transport, placed at the disposal of the bu		

# Conclusion

ICC has succeeded in making Incoterms<sup>®</sup> rules much more comprehensive by updating the structure of the book (Incoterms<sup>®</sup> 2020 – ICC Rules for the Use of Domestic and International Trade Terms), cleaning up the legalese and adding visualizations. ICC has also tried to ensure that DAT is not understood as "only Terminals" and to avoid the misuse of FOB for the sake of Letter of Credit.

There are various other reasons why FOB, CFR, CIF (and FAS) are so popular – for containerized cargo as well. The main advantage is that they easily help to identify the Named Place(s) and do not necessarily require – from an operational perspective – filling out the Named Place(s) field (Incoterms® Fields 2 and 3). In terms of FOB, Free On Board, everyone is able to derive what their tasks are from the three-letter code, while the software systems can use them to automatically allocate tasks as well.

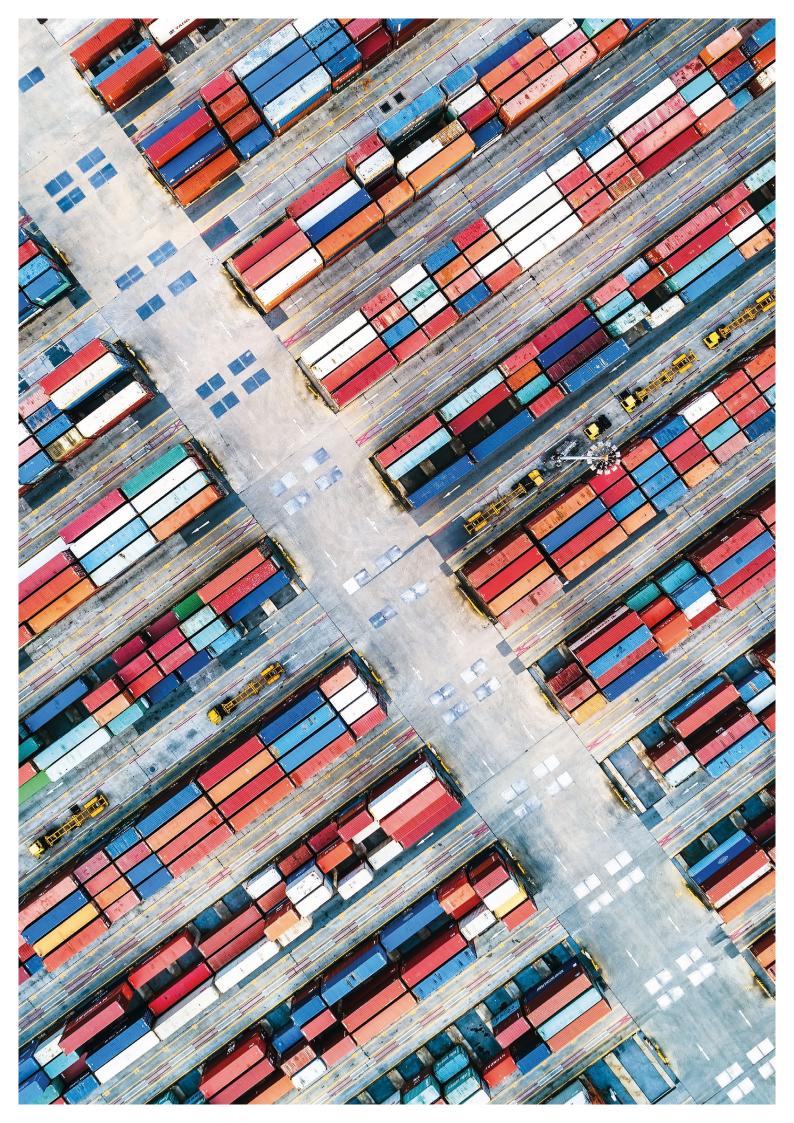
One potential goal for the Incoterms<sup>®</sup> 2030 rules could be to invite IT experts to contribute, as companies are trying to make their processes more transparent and manageable using software solutions. If they have to use Incoterms<sup>®</sup> rules that require them to fill out an additional pure text field (Named Places: Place of Delivery and Place of Incoterms<sup>®</sup>-Destination), however, it is impossible to automate this in the software by default without updating the coding logic.

Yet even if the software were able to handle a minimum set of requirements of Incoterms® rules handling, some contract details may still not be within the operator's reach. So, although it is good that parties have the freedom to incorporate any Named Place into the contract, it may lead to inefficiencies and misunderstanding if it is not easily visible to every operator on the supply chain. One approach to solve this problem could be to incorporate Incoterms® rules that enable users to more easily identify Named Place(s), such as Port of Load Terminal Entrance for FCL/FTL/ULD and Port of Load stuffing/stripping Warehouse for Loose/ LCL/LTL.

In addition to the challenges associated with using Named Places in software (e.g. Place of Delivery for risk transfer), handling dates is also not always straightforward in the main ERP and TMS systems on the market. These systems rarely display all of the collective dates relating to Origin, Place of Delivery, Place of Incoterms®-Destination and Destination in one place. Instead, they are often split up into different objects, making it difficult to support more automated, qualitative workflows.

Companies therefore have to either invest in additional and complex IT change requests on their own, or make only minor changes and come up with manual workarounds. Or they simply continue to misuse <sea only> terms unless they can partner with a software firm willing to properly incorporate Incoterms® logic. In the end, there is a lot of room for improvement in the functionality of ERP/ TMS systems to cope with the challenges that accompany the advantages of the variable use of certain Incoterms® rules (especially when using different Named Place(s)).

Once the hidden power of the Incoterms<sup>®</sup> rules is recognized, companies will be able to use them as a value chain enabler to improve efficiency and cut costs across the supply chain.



## Authors & Contact

For feedback and inquiries, please email: Incoterms@deloitte.de.

### Your Incoterms® Team

Consulting Sandra Irlbacher Transportation, Hospitality & Services | Freight Forwarding and Logistics Software

Carl Michael Petry Strategy & Operations

Hartmut Lierow Enterprise Application SAP Audit & Assurance Kai Haussmann IFRS Center of Excellence

Anton Berizzi Audit & Advisory | Audit Industry

Financial Advisory Patrick Pfersich Restructuring Services Tax & Legal Michael Neumann Global Trade

Stefan Runge VAT

**Torsten Schmitz** Legal

**Jens Schaeperclaus** Tax Management Consulting

#### Special Thanks to supporting Partners/Directors

#### Consulting

Tillman Hentschel, Transportation, Hospitality & Services Andreas Flegel, Strategy & Operations Nicolas Roussel, Enterprise Application SAP

Audit & Assurance

Felix Mantke, Audit & Advisory | Audit Industry

**Financial Advisory** Michael Neumann, Restructuring Services

#### Tax & Legal

Bettina Mertgen, Global Trade Dr. Ulrich Grünwald, VAT Andreas Leclaire, Legal Dr. Astrid Bregenhorn-Kuhs, Tax Management Consulting

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