

An Introduction to the Financial Supply Chain

Mapping the processes and finding the opportunities



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Project definition

- Objectives
- Scope and approach

Key concepts

- Supply chain definitions
- Supply chain risks to be managed
- Inter-relationship between physical and financial supply chains

Supply chain maps

- Physical supply chain
- Physical and financial supply chains linked
- Financial supply chain opportunities

Additional considerations

- Supply chain networks
- SMEs

Conclusions

These financial supply chain process maps have been prepared by the EBA Supply Chain Working Group (EBA SCWG) in order to:

- Describe and delineate the various layers of B2B supply chains namely:
 - the Physical Supply Chain (PSC)
 - the Financial Supply Chain (FSC)
 - the FSC product and service clusters
- Provide information about the role of banks and other service providers in the provision of FSC solutions to customers
- Demonstrate the importance to banks and other providers of taking a holistic and integrated supply chain view of their corporate customers in the development and delivery of products, services and solutions.

Scope

Mapping of the physical and financial supply chain ecosystem including

- detailed maps of the physical and financial supply chains
- identification of client needs and FSC opportunities

Approach

The following sources were used to create the financial supply chain process maps:

- EBA SCWG members through deliberations of the working group
- EBA European Market Guide to supply chain finance
- E-invoicing 2010 Guide prepared by EBA and Innopay
- Industry subject-matter experts
- A wide range of publicly available information through web-sites and industry research papers

Physical Supply Chain

‘The **Physical Supply Chain (PSC)** is a system of organisation, people, activities, information, and resources involved in moving a product or service from supplier to buyer. Supply chain activities transform raw materials, components and know how into a finished product that is delivered to the final buyer’.

Providers of PSC resources and components are internal corporate functions, suppliers or outsourced partners, e.g. with expertise in:

- Mining and manufacturing processes
- Design and development
- Procurement
- Logistics, transport and distribution
- Service delivery and customer support

Financial Supply Chain

The **Financial Supply Chain (FSC)** refers to risk management practices and transactions that facilitate the purchase of, and payment for, goods and services, such as exchanging purchase orders and invoices, managing liquidity, raising working capital finance, and making payments.

Providers of FSC resources and components are internal corporate functions, suppliers or external partners, e.g.:

- Collaborating trading partners
- Corporate treasuries
- Banks, alternative finance and insurance providers
- Business Process Outsourcers
- B2B integration networks
- E-Invoicing and e-business service providers
- Market analysts and advisers



Supply Chain Finance

Supply Chain Finance (SCF) is defined as “the use of financial instruments, practices and technologies to optimise the management of the working capital and liquidity tied up in supply chain processes for collaborating business partners. SCF is largely ‘event-driven’. Each intervention (finance, risk mitigation or payment) in the financial supply chain is driven by an event in the physical supply chain. The development of advanced technologies to track and control events in the physical supply chain creates opportunities to automate the initiation of SCF interventions.

SCF has emerged to address the FSC requirements of open account trading and increasingly globalised and interrelated supply chains. Clearly the roles of physical and financial supply chains are highly interrelated.

Physical Supply Chain Risks

Macroeconomic, Environmental, Political

- Economic cycle
- Regulation
- Sanctions and embargos
- Natural disasters
- Supply chain disruption
- Transport problems
- Raw material availability
- Industrial disputes

Market

- Consumer reactions
- Cultural

Enterprise Specific

- Global stretch
- Design and technical faults
- Human Resources
- IT issues
- Supplier concentrations
- Management controls
- Storage problems
- Quality control
- Distribution disruption
- Process continuity
- Partner management

Financial Supply Chain Risks

- Buyer default
- Supplier default
- Financial impact of demand volatility
- Exchange and interest rate risk
- Availability of finance
- Trading partner financial stability
- Payment assurance
- Payment execution and performance
- Fraud and errors
- Cash Flow and Liquidity

Solutions that address FSC risks ensure trading partners are 'able to pay and get paid on time'.

Why do these risks matter?

- The competitiveness, financial health and survival of the corporate trading parties
- The overall stability of the local, regional and global supply chain
- Support for supply chain networks in developing markets

Trends driving both physical and financial supply chains



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- Increased globalisation and complexity in supply chain management
- Acceleration of the growth in open account trading and reduced use of classical trade finance instruments
- The tide of automation as technology is leveraged to improve physical and financial supply chain processes
- The focus on working capital management and the need to manage costs at all levels
- The fact that business processes increasingly run across organisational boundaries requiring greater collaboration:
 - Internally between sales, marketing, procurement, treasury, receivables and payables management
 - Externally among buyers, suppliers, bank and non-bank solution providers
- Greater demand for standards and standardisation as a platform for competition
- Demand for transparency and visibility driving buyers and suppliers to achieve automation and better tracking of physical and financial flows for management and compliance reasons







The inter-relationship between the physical and financial supply chains is explained by means of reference to process maps showing:

- the components of the physical supply chain (PSC)
- the components of the combined physical and financial supply chain
- the events in the physical and financial supply chains (triggers) that represent opportunities for bank and non-bank providers to introduce financial supply chain products, services and solutions

The challenge for providers of financial supply chain solutions is to recognise the key components of the Financial Supply Chain (FSC) that meshes into and supports the Physical Supply Chain (PSC).

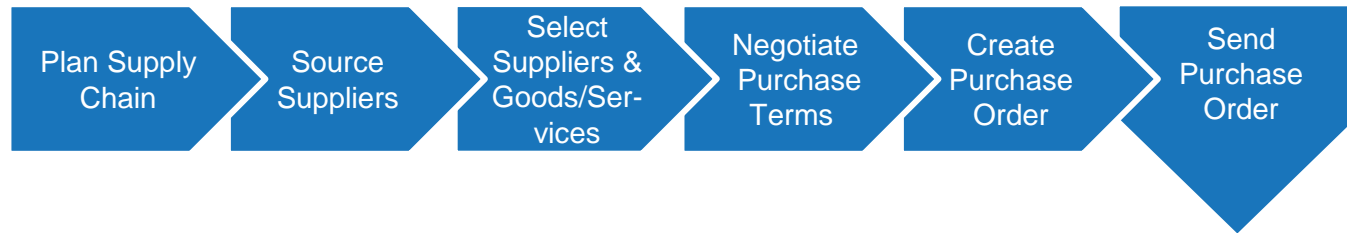
Process map key categories

The process maps incorporate the following definitions and categorisations of the various components of physical and financial supply chains.

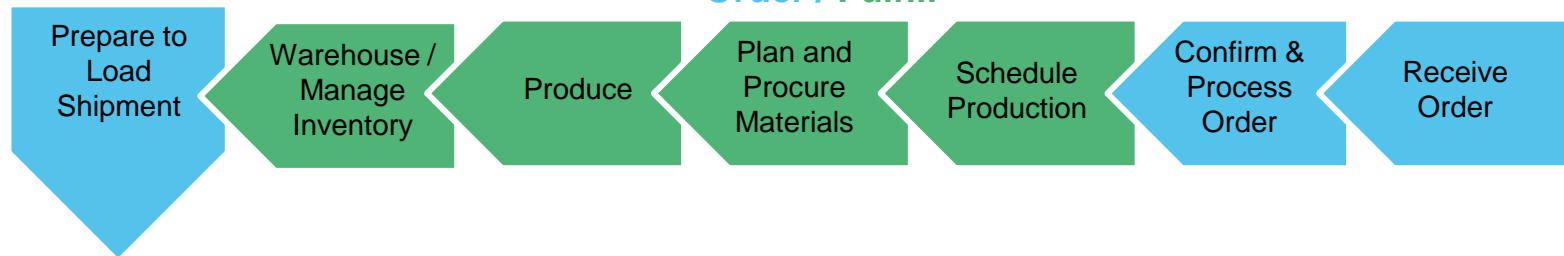
Party	Categorisation of PSC & FSC Components	Definition	Key Components
Buyer (Importer)	Source to Pay (S2P)  	All components of the physical and financial supply chains from the buyer's perspective – from sourcing suppliers through to payment of the supplier	<ul style="list-style-type: none"> • Source • Negotiate purchase terms • Create and send purchase order (PO) • Offload and inspect shipment • Receive, review & approve invoice • Generate and send payment
Supplier (Exporter)	Order-to-Cash (O2C)  	<ul style="list-style-type: none"> • All components of the physical and financial supply chains from the supplier's perspective – from receipt of purchase order through to collection and reconciliation of payments • The Fulfill-to-Service components are broken out separately as described below 	<ul style="list-style-type: none"> • Receive PO • Validate buyer's credentials • Confirm and process order • Fulfill-to-service – see below • Ship goods • Send invoice/collect payment • Reconcile and apply payment
Supplier (Exporter)	Fulfill-to-Service (F2S)  	All components of fulfilling the order from production scheduling through to warehousing and managing inventory	<ul style="list-style-type: none"> • Schedule production • Procure materials • Produce • Warehouse and manage inventory

Process maps: the physical supply chain (PSC)

Source



Order / Fulfill



Ship / Receive

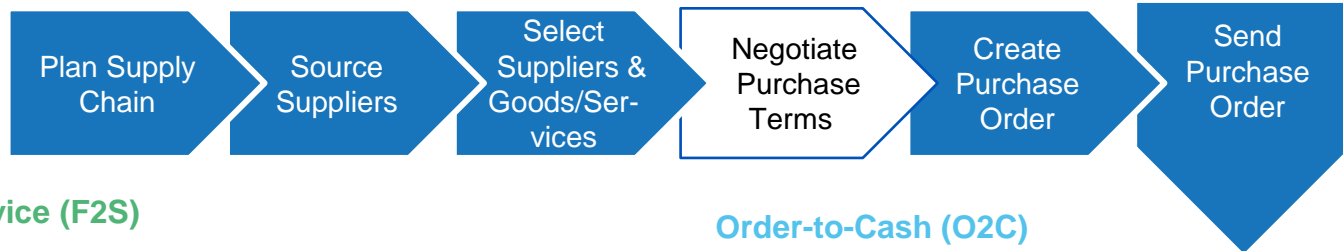


Key:

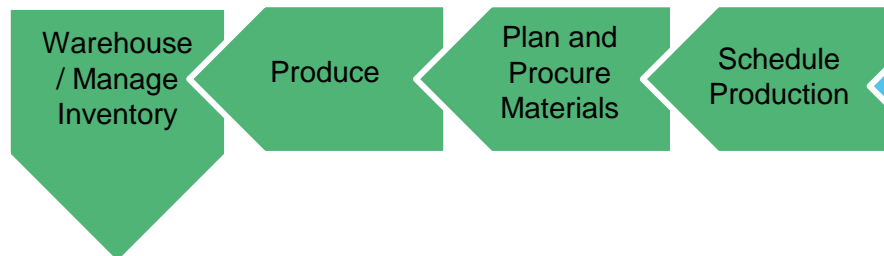
- PSC → S2P (Buyer / Importer)
- PSC → O2C (Supplier / Exporter)
- PSC → F2S (Supplier / Exporter)

Process maps: the physical and financial supply chains

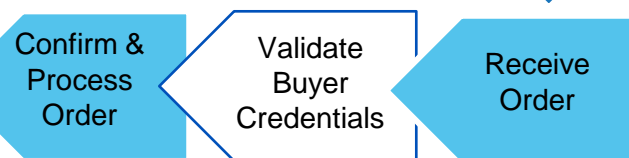
Source-to-Pay (S2P)



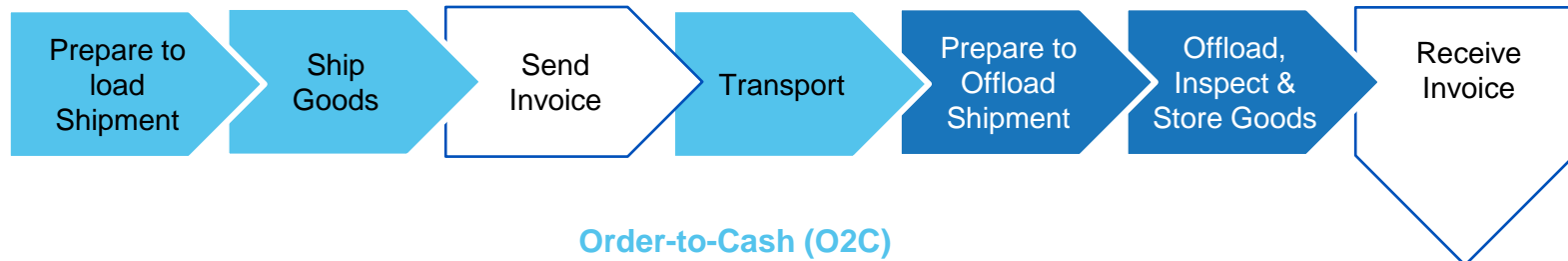
Fulfill-to-Service (F2S)



Order-to-Cash (O2C)



Order-to-Cash (O2C)



Source-to-Pay (S2P)



Key:



Process maps: financial supply chain opportunities



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- A number and variety of opportunities exist for banks to support the financial supply chain.
- In order to act on these opportunities, banks must develop a deep understanding of the full Order-to-Cash (including Fulfill-to-Service) and Source-to-Pay cycles and the **triggers (events)** within these cycles that represent **opportunities to provide financial supply chain solutions**.
- The charts on the following pages identify **some of the most commonly recognised** triggers and related financial supply chain opportunities.

Process maps: financial supply chain opportunities



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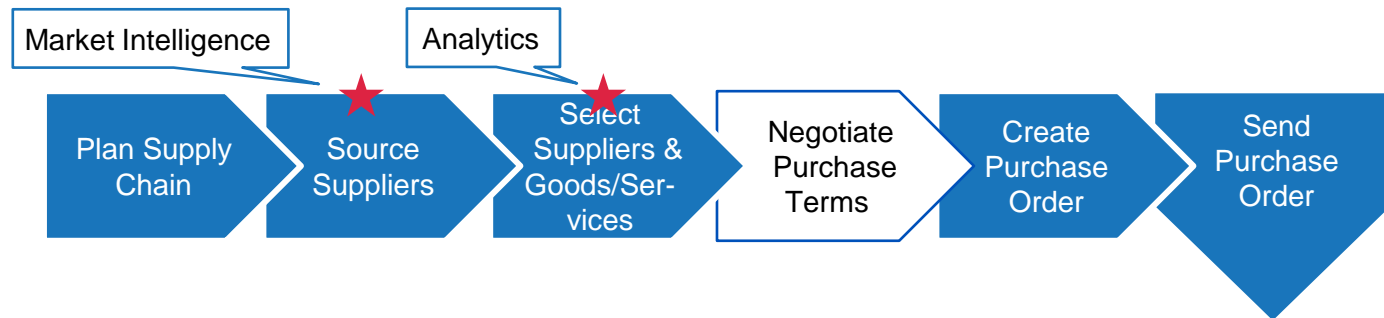
Supply Chain	Trigger	FSC Opportunities
Source-to-Pay	Source/select suppliers	<ul style="list-style-type: none"> • Market intelligence • Analytics
Source-to-Pay	Negotiate purchase terms	<ul style="list-style-type: none"> • Pre-shipment finance • Classic trade finance • Bank Payment Obligation (BPO)
Fulfill-to-Service	Production	Financing
Fulfill-to-Service	Warehousing/manage inventory	Inventory financing
Order-to-Cash	Send invoice	<ul style="list-style-type: none"> • E-invoicing services • Receivables finance (supplier-centric) • Risk mitigation (approved credit limit/buyer – internal or outsource via credit insurance)
Source-to-Pay	Review & approve invoice	Post shipment finance (buyer-centric) – e.g. approved payables finance, dynamic discounting
Source-to-Pay	Generate & send payment	Payments & Cash Management, FX
Order-to-Cash	Collect payments	Payments & Cash Management, FX
Order-to-Cash	Reconcile & apply to account	Reporting & reconciliation services

Process maps: financial supply chain opportunities (1)

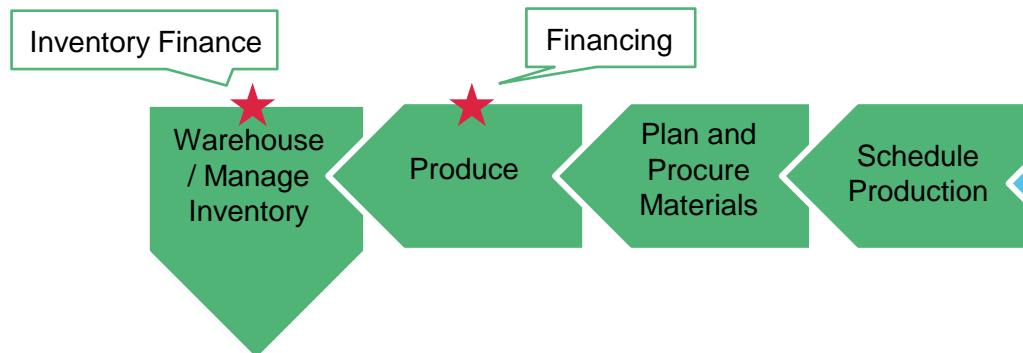


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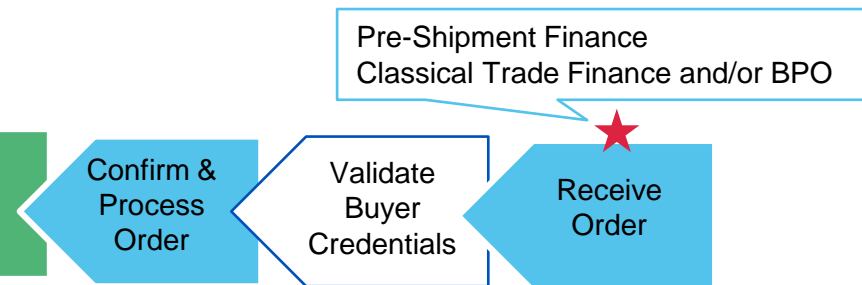
Source-to-Pay (S2P)



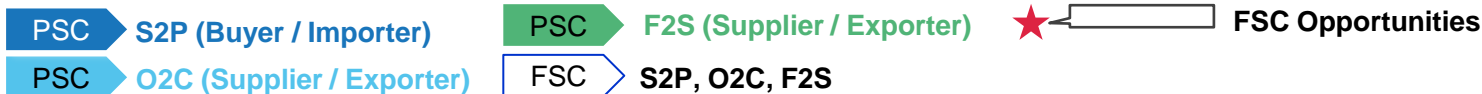
Fulfill-to-Service (F2S)



Order-to-Cash (O2C)



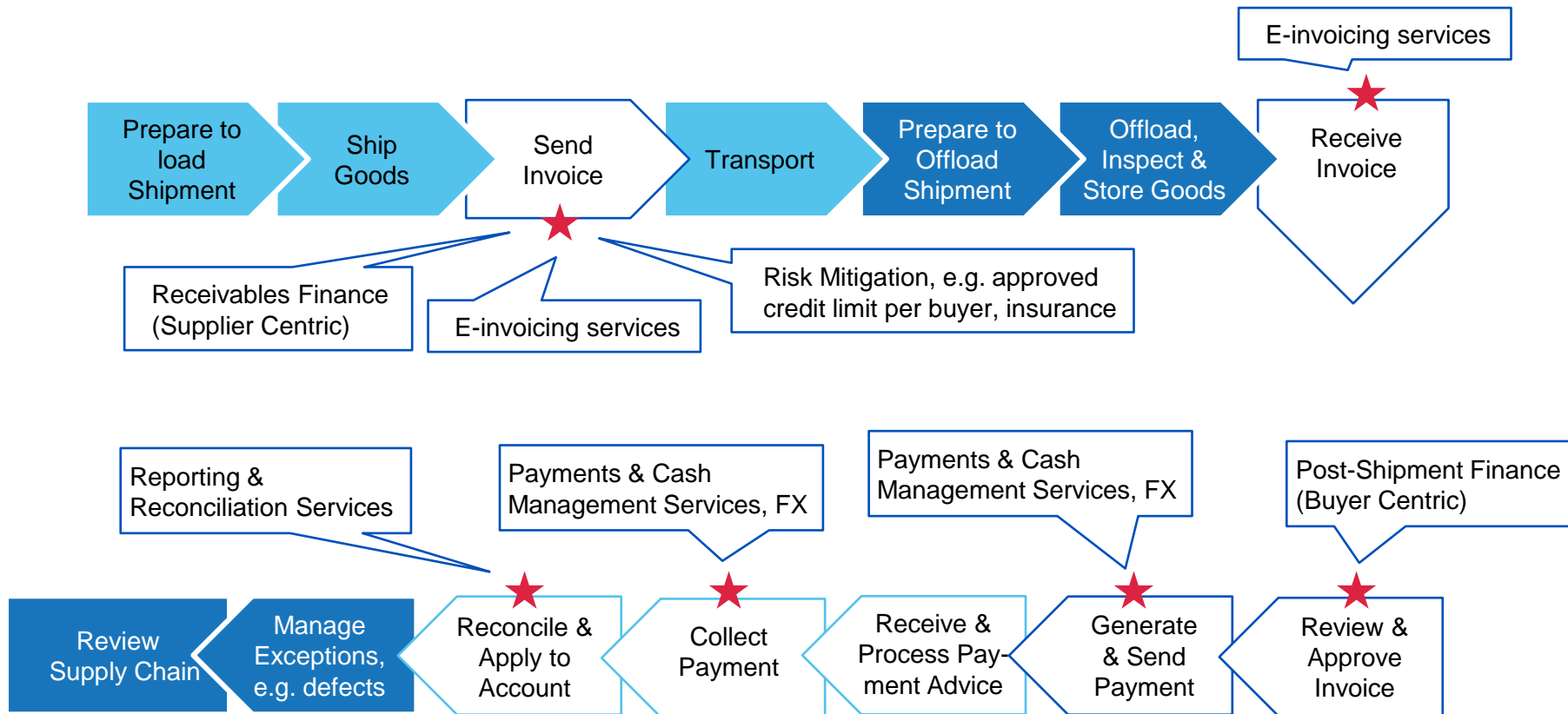
Key:



Process maps: financial supply chain opportunities (2)

Order-to-Cash (O2C)

Source-to-Pay (S2P)



Key:

PSC → S2P (Buyer / Importer)
PSC → O2C (Supplier / Exporter)

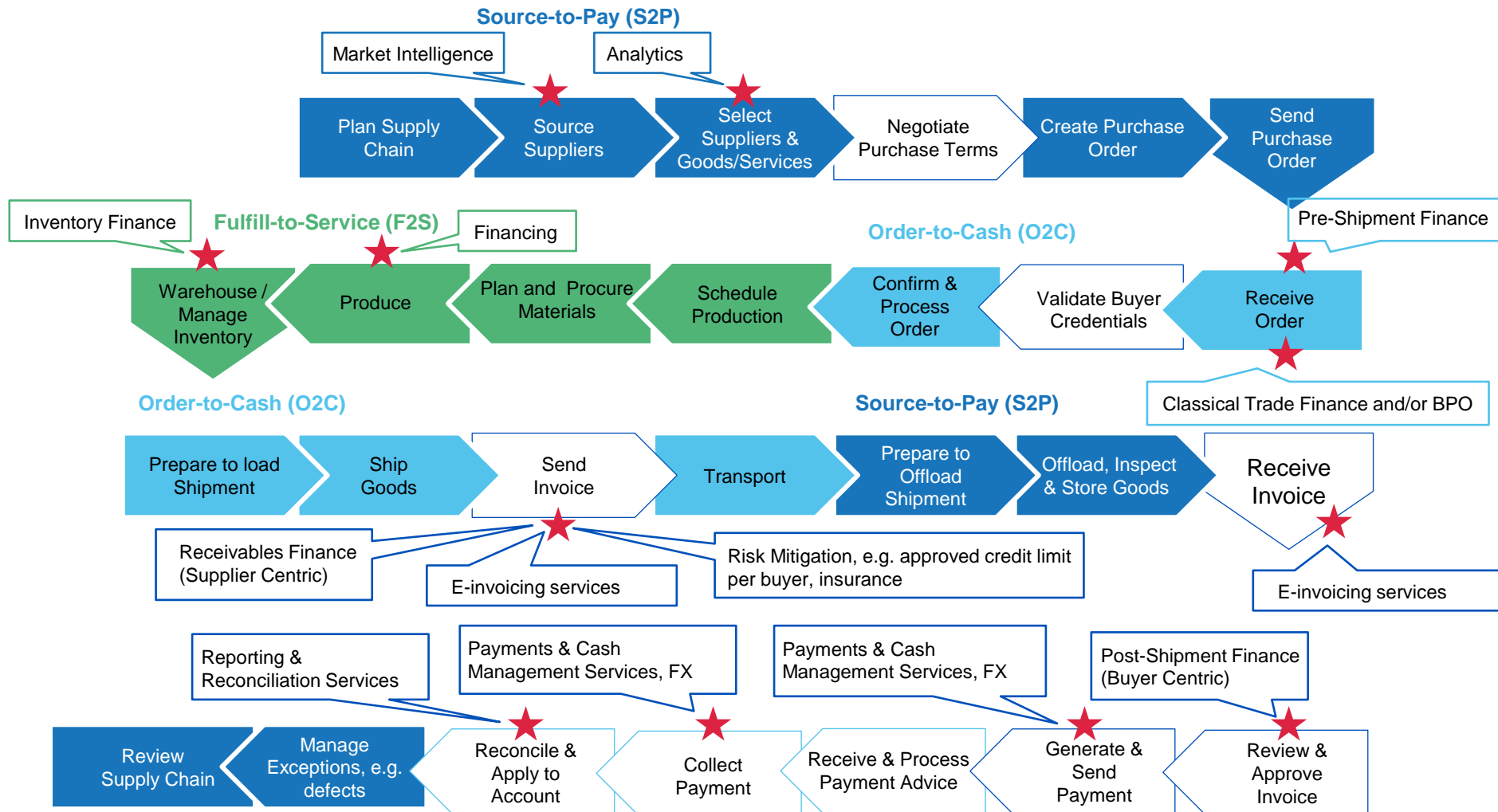
PSC → F2S (Supplier / Exporter)
FSC → S2P, O2C, F2S

★  **FSC Opportunities**

Process maps: financial supply chain opportunities (complete overview)



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Sources: EBA SCWG &

"Supply Chain Finance: EBA European Market Guide"

Process maps: financial supply chain opportunities



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To further understand the role of and opportunities for banks and non-banks in the financial supply chain space, opportunities and solutions have been clustered as follows:

- Supply chain automation
- Working capital management
- Trade and supply chain finance
- Risk mitigation
- Business Intelligence and analytics

These categories overlap of course, e.g. trade and supply chain finance with risk mitigation.

Process Maps

Financial Supply Chain Opportunities



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Financial Supply Chain Services

Supply Chain Automation

Dematerialisation

- E-invoicing
- E-procurement
- Processing services /automation platforms
- Business Process Outsourcing
- B2B integration

Working Capital Management

Working Capital

- Inventory
- Accounts receivable
- Accounts payable
- Cash Flow (including forecasting)

Cash Management

- Payments
- FX
- Deposits/remittance collections
- Liquidity management including pooling solutions

Trade & Supply Chain Finance

Trade and Supply Chain Finance

- Traditional trade finance solutions including letters of credit, documentary collections, guarantees and trade loans
- Open Account SCF
 - Payables (buyer-centric) – Approved payables
 - Dynamic discounting
 - Receivables (supplier-centric)
 - Forfaiting
 - Invoice discounting
 - Receivables purchase
 - Factoring
- Inventory-centric: Purchase order or inventory financing
- Related
 - Bank Payment Obligation (BPO)
 - Long term export and project finance
 - Hedging
 - Alternative payment instruments*

Risk Mitigation

Business Intelligence

Data Analysis

- Analytics
- Dashboards
- Reporting
- Archiving
- Data storage

Risk Management

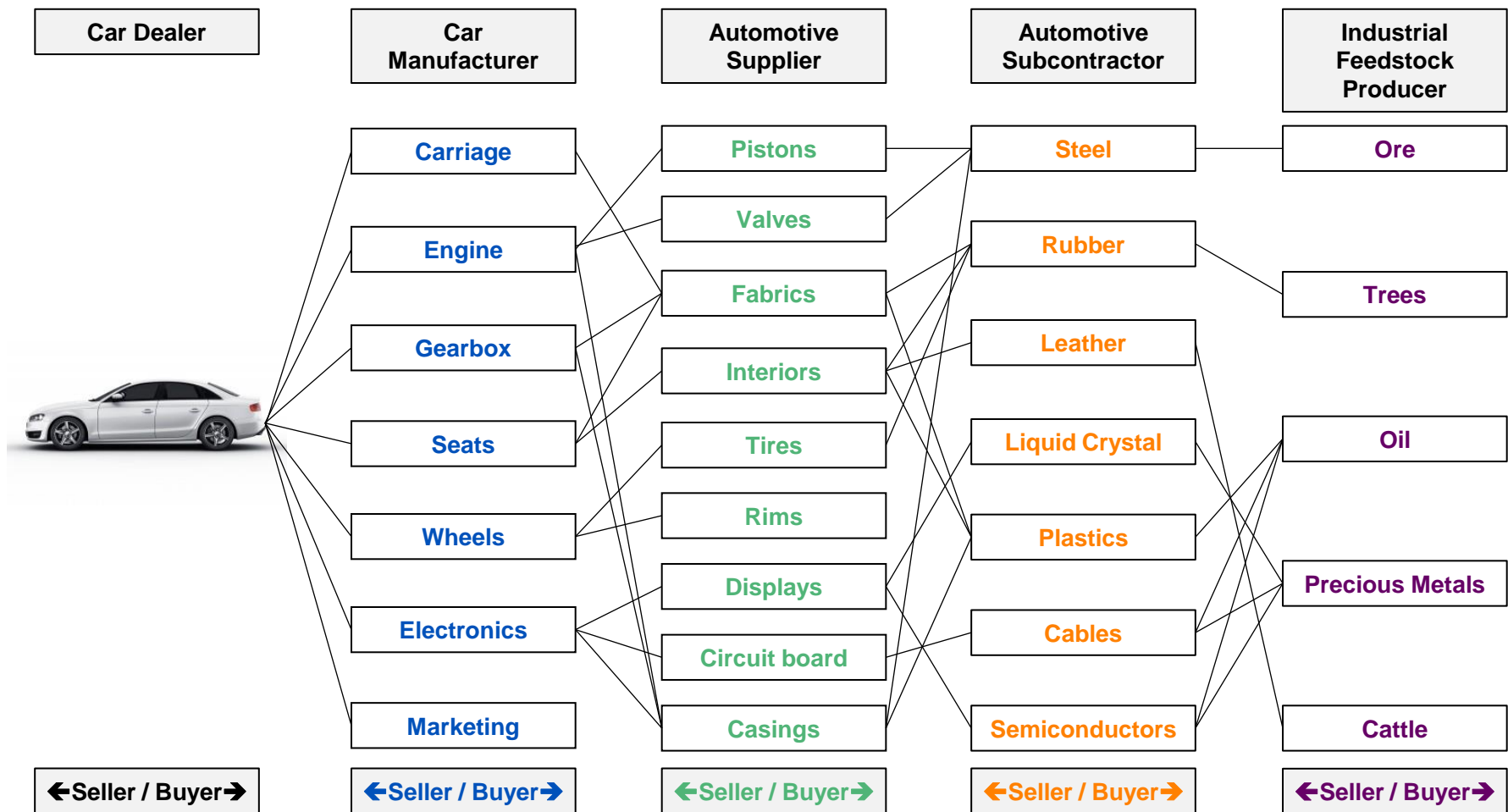
- Insurance
- Traditional trade finance
- FX hedging

Complex supply chains and networks

The previous slides have focused on a single supply chain (between a buyer and a seller) in order to illustrate components and inter-relationships in physical and financial supply chains.

In reality, the actual transaction flow between a buyer and supplier likely consists of multiple parties meshed together in supply chain networks. The illustration on the following slide depicts the critical supply chains involved in the manufacture and sale of a car to a final buyer.

Supply Chain Networks – car manufacturing example



SME considerations

While the largest regional and global corporations drive innovations and efficiencies in physical and financial supply chains, SMEs are a critical component of these supply chains, although they have limited leverage with their trading partners to be able to

- implement systems and technologies that improve efficiency in the physical supply chain and inform the financial supply chain
- drive/negotiate terms

As suppliers to larger firms, SMEs may benefit from supplier finance where they receive financing based on the credit of the buyer. A caveat to this is that often these programs focus on the largest 20% of suppliers, potentially leaving out smaller SMEs.

As the financial supply chain continues to evolve, the solutions offered to large corporates will increasingly find their way to SMEs.

- Physical and financial supply chains are inextricably linked and becoming ever more integrated, automated and characterised by collaboration.
- Trigger points along the physical supply chain create opportunities for bank and non-bank providers to offer financial supply chain solutions that support and facilitate the physical supply chain.
- Whether a buyer, a supplier or a provider of financial supply chain solutions, it is incumbent upon all parties to move beyond a silo view of the PSC and/or FSC and take a holistic approach in order to fully understand and act upon the opportunities.

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