

# Fractalies

## EXECUTIVE SUMMARY

STP Partners LLC

# THE OPPORTUNITY:

In relation to the global economy, the retail sector is the most significant part in terms of dollars, volume and transactions:

## GENERALLY ACROSS THE WORLD\* :

- ▶ Number of invoices annually = 170 Billion
- ▶ Global retail market = \$24 642 Billion
- ▶ Global factoring market = \$ 2 755 Billion

\* Source: Factoring Chain International Statistics, 2017

# GO-THROUGH CONCEPT

- ▶ Merchants and suppliers are devoted to each other by a year by year “trust me” mode
- ▶ To date, no-one has developed another approach
  - ▶ Our analysts’ have dedicated hundreds of hours to identify key problems in the supply chain between suppliers and merchants to develop a better approach
  - ▶ We represent the full cycle of the merchandise chain

# SUPPLY CHAIN PROBLEM STATEMENT

- **Variety of vendors and products addiction:** Across the globe merchants and suppliers have to use a variety of technology products to support electronic invoicing (mainly based on Electronic Data Interchange / EDI standards) as well as several operator companies to enable the supply chain process
- **Lack of automatization:** Significant number of merchants and suppliers are relatively far from digital invoicing and have to follow paper-based approach
- **Variety in formants and structures within core systems:** Merchants and suppliers are using different structures and formats within their core ERP systems, which results in overcomplicated EDI to core system format matching
- **Data owned by vendor:** All EDI operators aggregate and internally store commercial data related to all supply chain process counterparties. This data could be sold to competitors of merchants and suppliers or misused in some other way
- **Variety of factoring platforms and high risk of fraud:** Factoring is the standard way to finance at each stage of the supply chain. Main risk for factoring companies is a fraud in delivery. To mitigate this risk the factoring company should get a legally valid acknowledgment from the merchant before payment to supplier

# OUR PROPOSAL -FRACTALIES

- 1 → Build a distributed platform based on blockchain technology which will provide a unified lightweight electronic document exchange solution and automatized factoring verification available world wide
- 2 → The platform will be open source, will not have a single beneficiary (community managed) and because of that it will become a first choice solution replacing existing EDI platforms
- 3 → It will be a commercial data secure (encrypted) and big data safe (no chance of data loss)
- 4 → It will enable fast and easy onboarding and will let clients adjust format and process according to supply chain specifics through configuration and minor customization
- 5 → It will enable easy to establish monthly reporting and data analysis

**There is a strong opportunity for a digital global platform, which covers the end to end supply chain process independent of any particular vendor / provider**

# 4 KEYS CAPABILITIES OF THE PLATFORM:

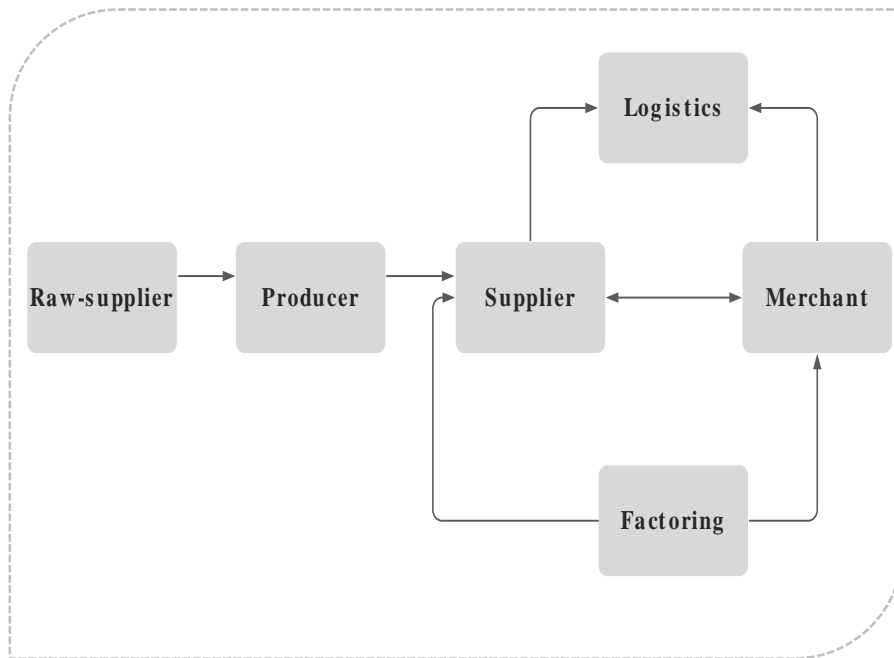
## FRACTALIES

- Global end to end electronic document exchange process from raw-supplier to final B2B buyer (retailer)
- Automated cross-participant verification of product delivery at every stage
- Automated confirmation (proof) of any delivery transaction in the factoring (funding) process
- Secure big-data driven business intelligence for strategic planning and execution management

# AS-IS / TO-BE

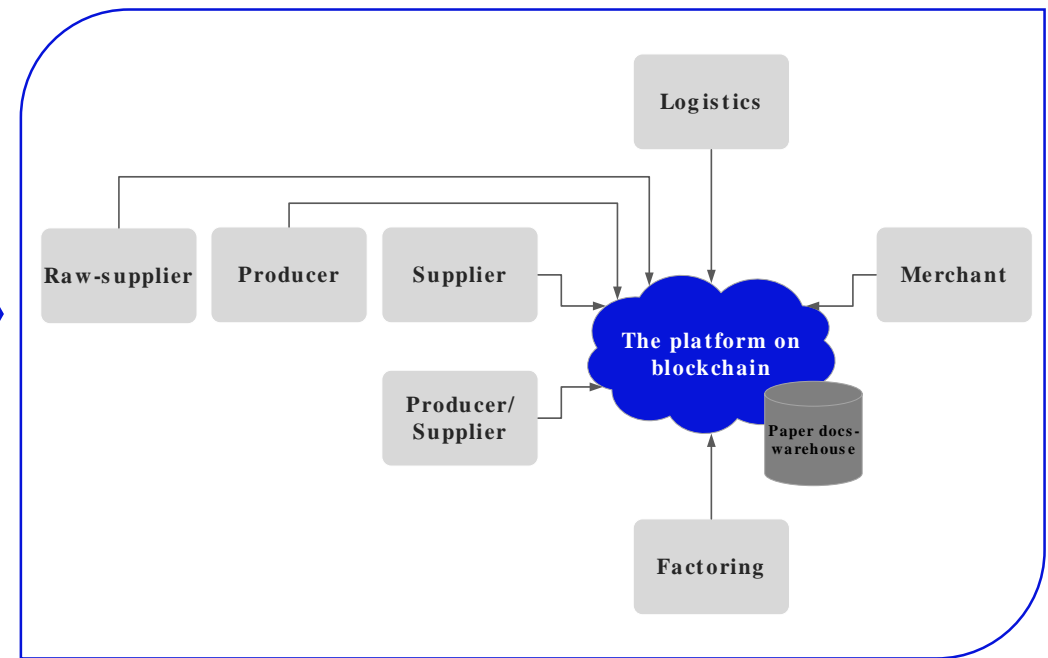
## AS-IS

The model is extremely fragmented and holds a high multi-operators risk and complexity



## TO-BE

The model assumes that all stakeholders would work through a single platform built on blockchain



# BENEFITS

- ▶ Speed up financing turnaround through access to supply chain process insights

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- ▶ Ensure right on time delivery

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- ▶ Fraud detection

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- ▶ Significantly reduce delivery mistakes

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- ▶ Ensure transparency and traceability across all processes

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- ▶ Reduce accounting costs

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- ▶ Larger volume of production and supply

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- ▶ Paperless process (paper docs auto generation option is available if required by local law or government)

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- ▶ Secure commercial data

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- ▶ BI driven strategic planning and proactive ops management

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PRODUCER	SUPPLIER	LOGISTICS	FACTORING	MERCHANT
			X	
				X
			X	
X	X	X		X
X	X	X	X	X
X	X	X		X
X	X			
X	X	X	X	X
X	X		X	X
X	X	X	X	X



# WHY BLOCKCHAIN?

<b>SECURITY</b>	Secure storage and secure data exchange between Supplier and Debtors
<b>OPTIMIZATION</b>	Speeds up the document reconciliation process
<b>AUTOMATIZATION</b>	Virtually excludes the human factor – reconciliation is automatic
<b>LEGAL SIGNIFICANCE</b>	Act can be signed by with legally binding digital signature
<b>SAFETY</b>	Data is stored in a decentralized way – cannot be lost or historically distorted
<b>EASY INTEGRATION</b>	Does not require complex and expensive integration, the uploading occurs in approved IRS format (XML)
<b>INDEPENDENT</b>	Open source and evolved by community in the target model

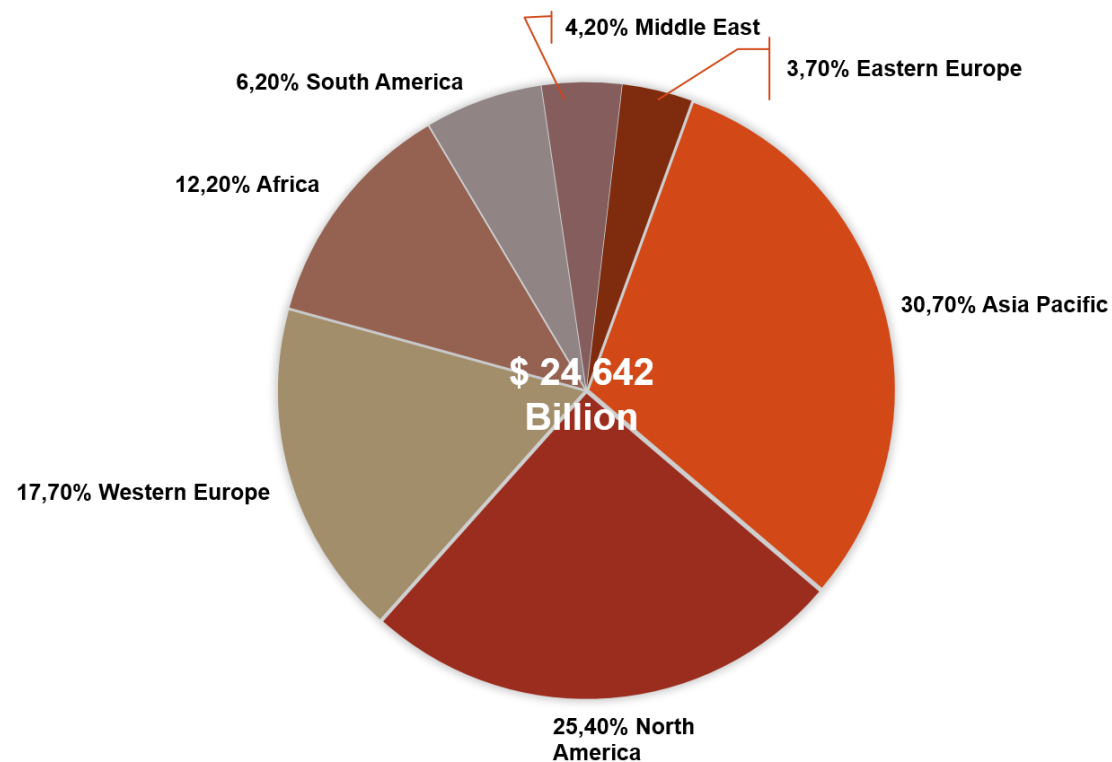
# PRELIMINARY ROADMAP OF THE PROJECT

At the End of Year 1:	At the End of Year 2:	At the End of Year 3:	At the End of Year 4:	At the End of Year 5:
<p>Technical and sales teams are formed</p> <p>Platform foundation developed</p>	<p><b>0.5%</b> Share of EDI pilot market country</p> <p><b>0.5%</b> Verification share of pilot market country</p> <p>BI capabilities developed</p>	<p><b>1%</b> Share of EDI pilot market country</p> <p><b>1%</b> Verification share of pilot market country</p> <p><b>0.3%</b> Verification share of world market</p> <p><b>0.3%</b> Share of EDI world market</p>	<p><b>3%</b> Share of EDI pilot market country</p> <p><b>3%</b> Verification share of pilot market country</p> <p><b>1%</b> Verification share of world market</p> <p><b>1%</b> Share of EDI world market</p>	<p><b>5%</b> Share of EDI pilot market country</p> <p><b>5%</b> Verification share of pilot market country</p> <p><b>3%</b> Verification share of world market</p> <p><b>2%</b> Share of EDI world market</p>
Budget: 9.4 mln \$	12 mln \$	8.9 mln \$	N/A	N/A

# RETAIL MARKET GEOGRAPHY REGIONAL

THE PIE CHART BELOW SHOWS THE SPLIT OF THE RETAIL MARKET BY REGION IN 2017\* :

**Global Retail Market, 2017, \$ Billion**

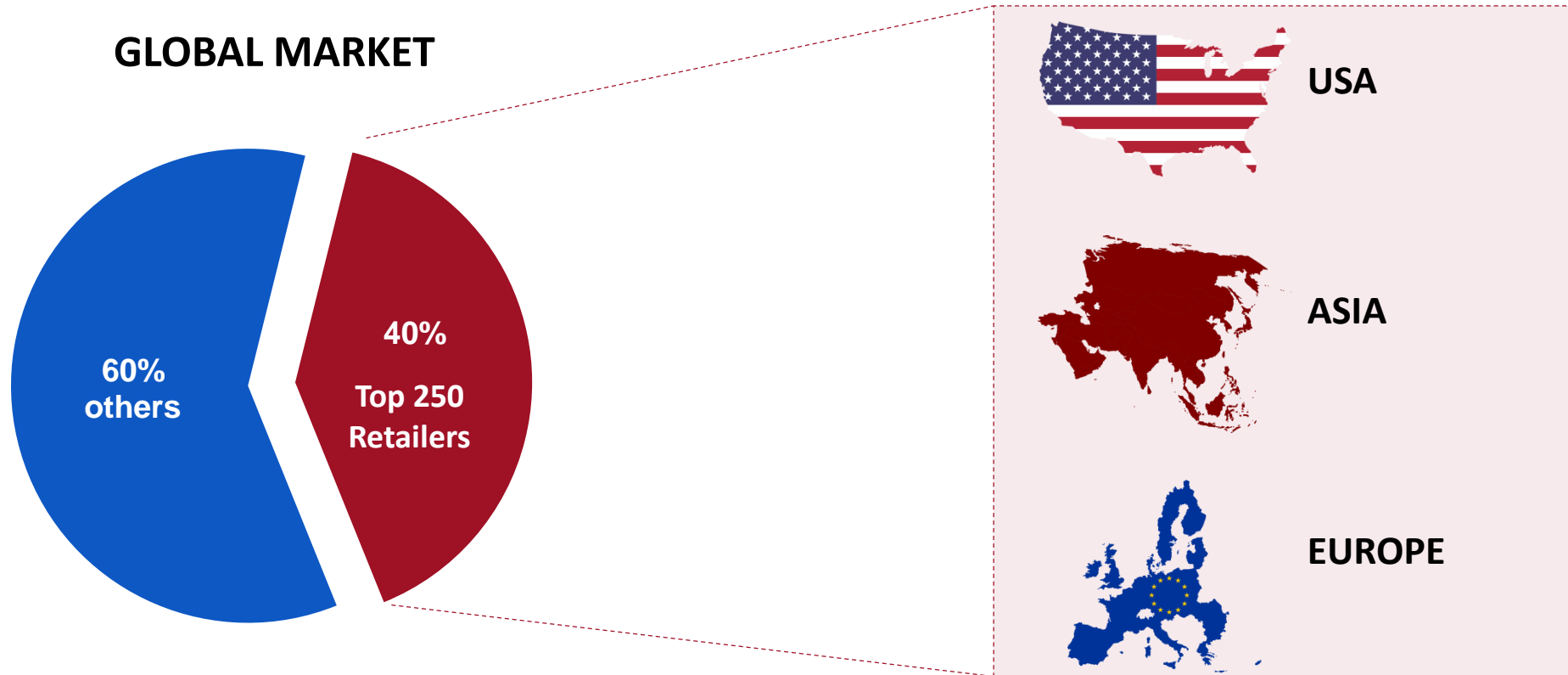


■ Asia Pacific ■ North America ■ Western Europe ■ Africa ■ South America ■ Middle East ■ Eastern Europe

\* Source: Retail Market Global Briefing — The Business Research Company, 2018

# WE WORK WITH TOP 250

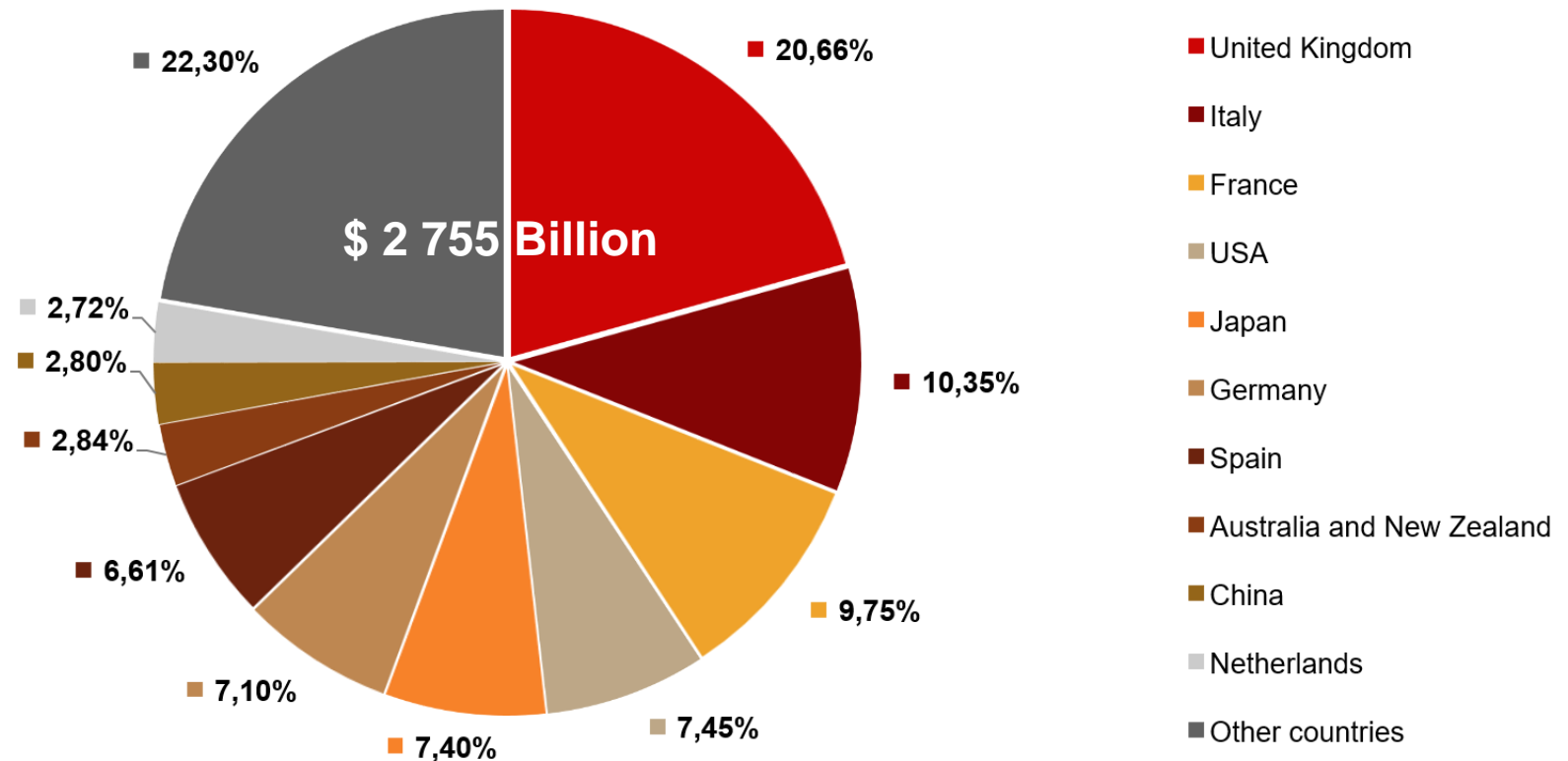
RETAILERS – 40% OF THE GLOBAL MARKET (TARGET 5%)



IN TRANSACTION WE FOCUS ON TOP 250 AND 3-KEY REGIONS

# GLOBAL FACTORING STRUCTURE

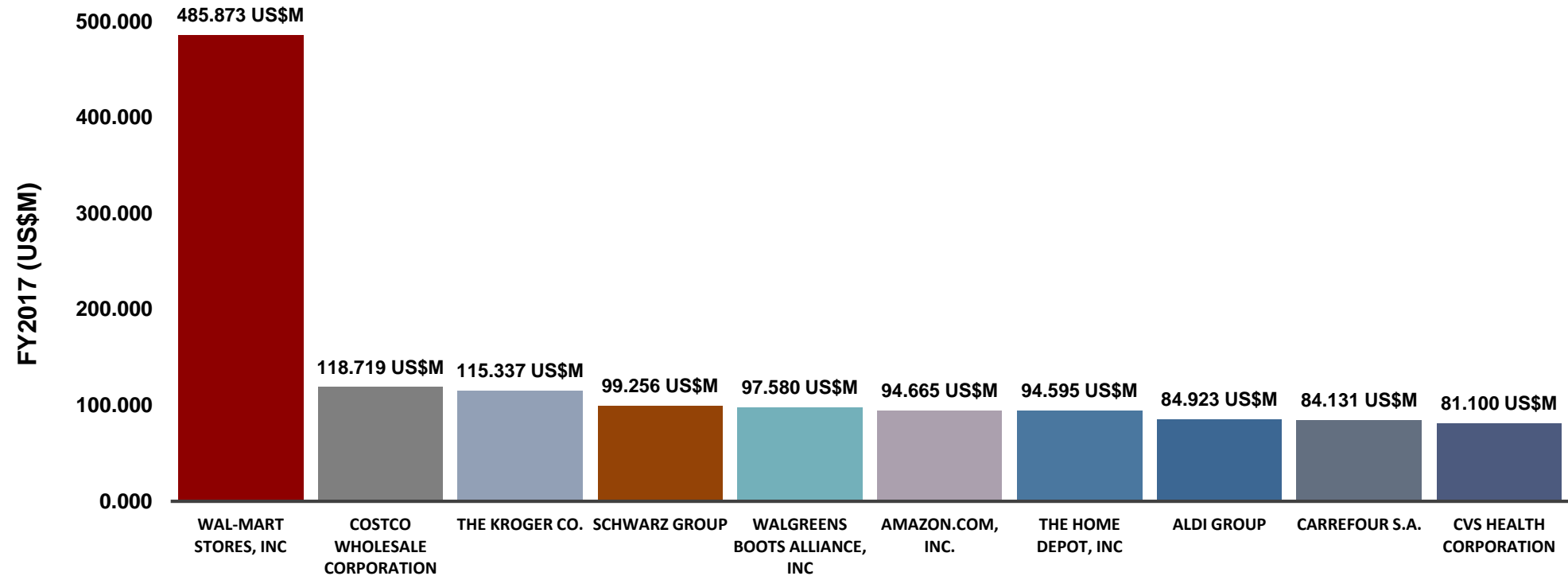
## DELIVERY CONFIRMATION\*



IN FACTORING WE FOCUS ON EUROPEAN MARKET

\* Source: Retail Market Global Briefing — The Business Research Company, 2018

# TOP 10 GLOBAL RETAILERS



PRIORITY IS TOP-250 GLOBAL RETAILERS

\* Source: Global Powers of Retailing — Deloitte, 2018

# GO TO MARKET STRATEGY

- ▶ 5<sup>th</sup> year targets
  - ▶ 3% - verification share of world market
  - ▶ 2% - share of EDI world market
- ▶ We focus on top 250 retailers
  - ▶ 40% of the global market
  - ▶ more than 50% of transactions volume
- ▶ Why?
  - ▶ top retailers give direct access to significant volume of the suppliers
  - ▶ top retailers expected to be tolerant to the platform adoption as
    - ▶ they are interested in costs reduction
    - ▶ onboarding is free
- ▶ Success vs targets: onboarding of 10+ retailers

# COSTS AND PROFIT\*

- ❑ By Q1 4<sup>th</sup> year we are in profit
- ❑ By 5<sup>th</sup> year we return investments
- ❑ Profit by end of the project = \$49 446 809
- ❑ Required investments = \$30 440 276
- ❑ By 6<sup>th</sup> year EBITDA = \$128 717 000

	COSTS, \$	PROFIT, \$	ACCUMULATED, \$
1 year	9 482 600	-	- 9 482 600
2 year	13 225 400	-	- 21 507 464
3 year	20 840 000	-	- 30 440 276
4 year	33 538 506	16 227 432	- 14 212 844
5 year	56 767 430	63 659 653	49 446 809

\* Taxes are included



# MONETIZATION:

- Fee to prove transaction – 7 cents
- Verification of delivery (factoring) – 0.1% of delivery value  
*(0.05% fee will be paid to the merchant for verification and 0.05% to the platform fund)*
- Fee to onboard a client
- Fee to enhance the platform for clients needs



# INVESTMENT OFFER

- ▶ Value growth will depend on the company capitalization
- ▶ Company capitalization will be driven by
  - ▶ number of onboarded clients
  - ▶ transactions volume
  - ▶ net income
- ▶ Growth forecast:
  - ▶ company capitalization by end of 6<sup>th</sup> year:  $8 * \text{EBITDA} = 8 * 128\,717\,000 \$ = 1.03$  billion \$
  - ▶ value growth by end of 6<sup>th</sup> year:  $1.03 \text{ billion } \$ / 60\,880\,000 \$ = x 16,9$

# WHERE WE ARE NOW:

As of now we have a pilot solution developed on Ethereum blockchain (private network) which is already in production for several clients in emerging markets segment.



## FACTORS:

Preliminary agreement with

- **A top 10 bank**

## MERCHANTS:

- **A top 10 merchant**

# FOUNDING PARTNER AND ADVISORS



**WILLIAM CUNNINGHAM**

**FOUNDING PARTNER - USA**

Senior business executive in finance and technology with more than 20 years experience: enterprise software development; banking and finance systems; creation/management of global IT delivery centers; digital transformation in finance, retail, media, and entertainment industries.

Background: Deutsche Bank, Endava etc.



**ERIK TIMMERMANS**

**ADVISOR - EUROPE**

A well-known and recognized leader in the global factoring and commercial financing industry with a global turnover of 2.5 trillion Euros.

Background: FCI, IFG, BZIX Consulting and Management etc.

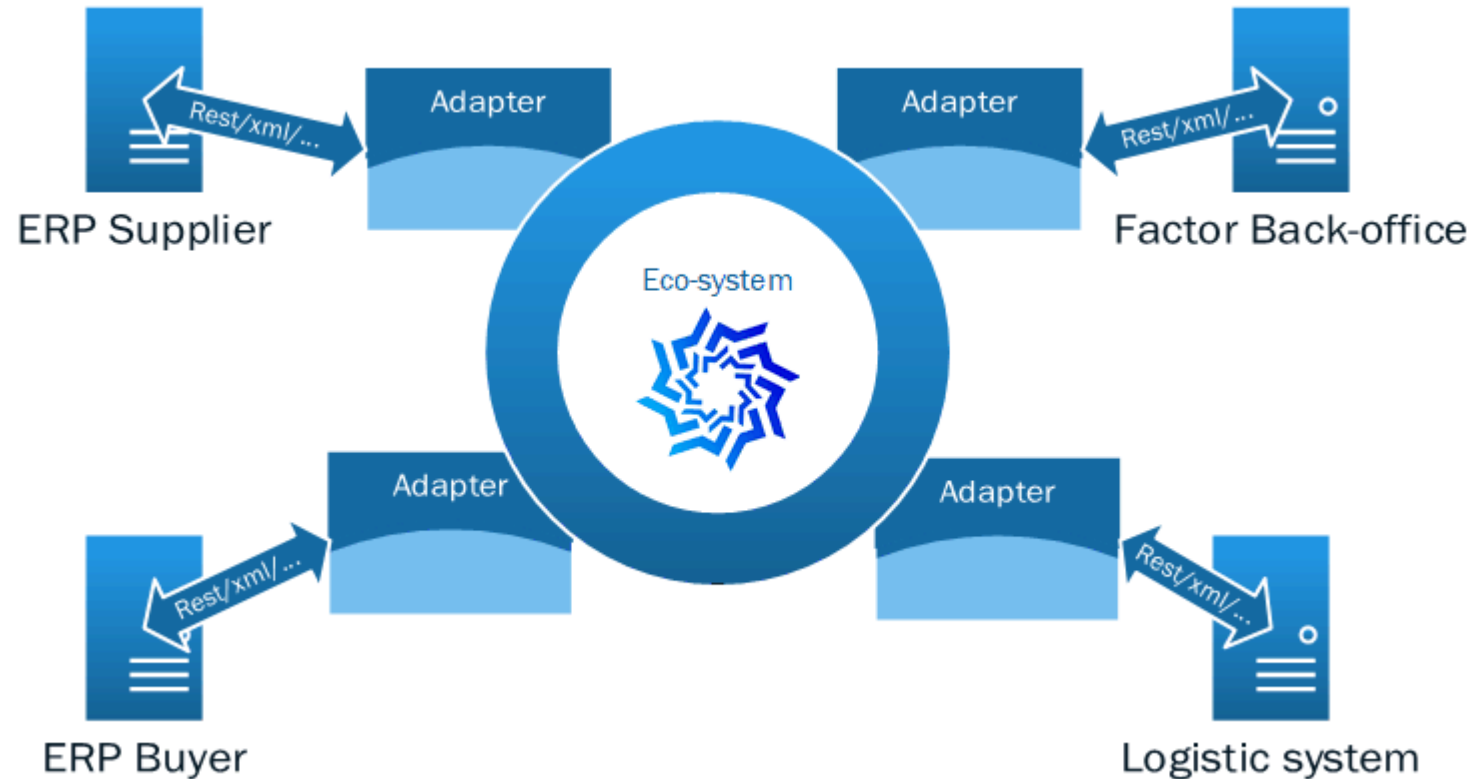


**VICTOR IGNACIO  
PORTILLO SANCHEZ**

**ADVISOR - NORTH AND SOUTH  
AMERICA**

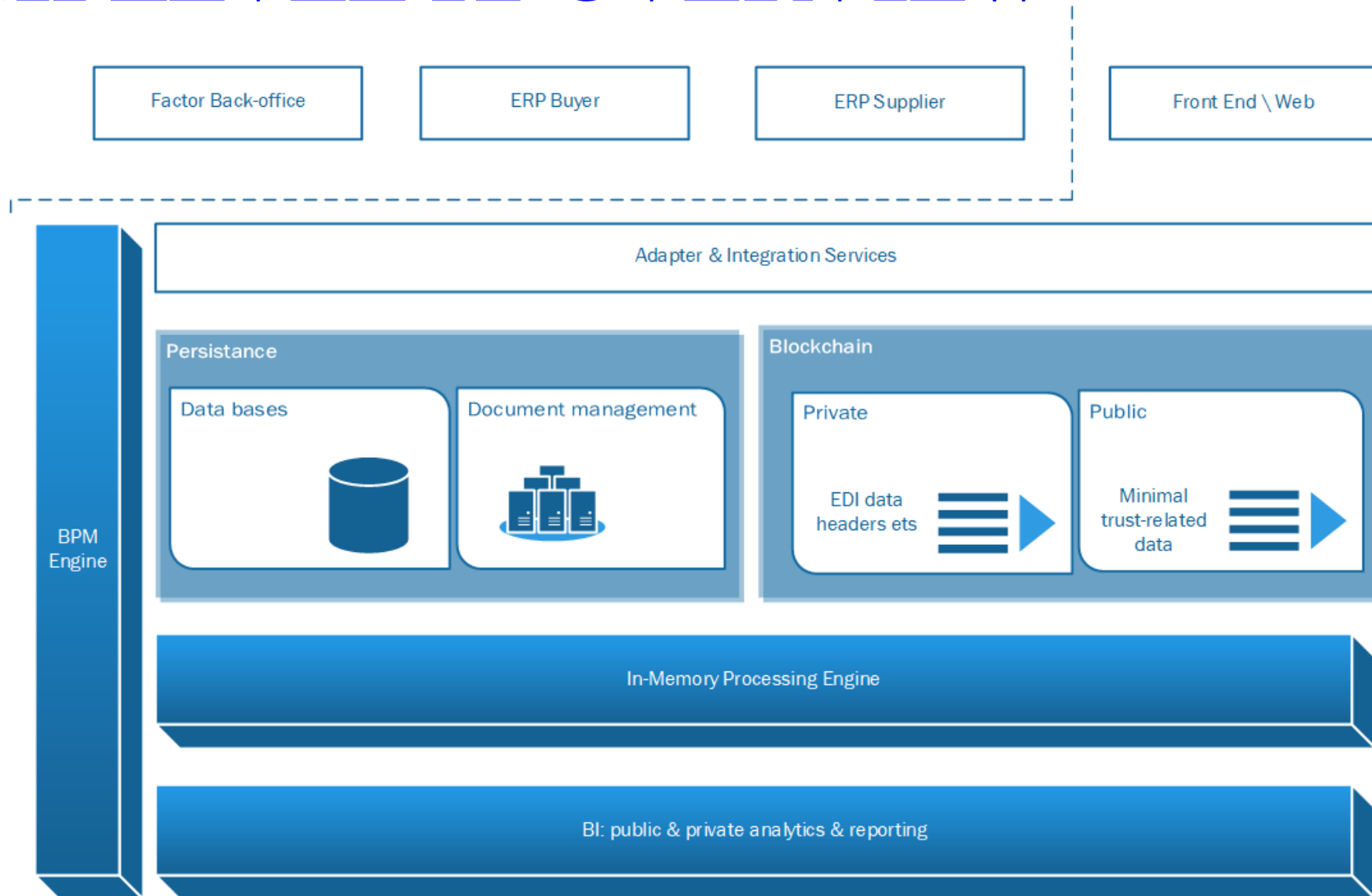
Experienced executive in trade finance, factoring, electronic banking, real estate financing and credit insurance. Background: Water Capital, BanRegio, HSBC, Grupo Financiero Biral etc.

# FRACTALIES - DIGITAL ECOSYSTEM



Fractalies plays the role of digital ecosystem which provides predefined but easily to configure adaptors to all back office systems.

# HIGH LEVEL IT OVERVIEW



# IT PRINCIPLES:

- Public blockchain will be used to enable exchange of minimal trust-related data between all supply chain management process participants which is essential to void overload of the public blockchain.
- Private blockchain will be used to enable a secure channel for a day to day document exchange through header-like messages which are traceable down to particular electronic documents.
- All detailed data and documents will be stored and encrypted through distributed persistence layer. Confidential data will be available for data owners only and can not be derived and misused by other process participants.
- Supply chain management process will be orchestrated by business process management engine.
- Adapters and integration services layer will be used to expose easy to configure external adapters to back office systems (SAP etc).
- Web front end will be used for low volume data exchanges and verification as well as process tuning and adoption on earlier stages. High volume exchange will be implemented directly through adaptors layer.
- In-memory processing engine will be used for just in time high volume secure data decryption and processing to enable big-data driven analyses, artificial intelligence etc. as well as public and private reporting through BI.

# SIMPLIFIED USE CASE (EXAMPLE)

Food retail group has several suppliers of beers.

Internal ERP system generated an alarm that existing volume of beers doesn't fit the sales forecast.

Food retail staff request suppliers for best price and volume availability.

As soon as best price and volume confirmed retailer send an order including volume, ship-to address etc.

The supplier delivers the requested product volume through a logistics company as well as requests "raw-material" provider to fulfill the beers needs.

Food retailer is ready to pay for delivery in 30 days (example).

During that period retailer can order even more beers.

As a result of that there is a cash break risk on the supplier side.

Banks and Factoring companies provide a service where payment goes on-behalf of retailer for some fee as soon as delivery confirmed by a buyer.

Legal and secure confirmation is an essential trigger for payment by factor as the main fraud risky area in supply chain management process.

On a regular basis buyer should cross check all deliveries with all suppliers (for accounting, analytics and payments to suppliers and factors).

Participants of the supply chain process have a strong need in business aggregated analytics and reporting on global, country, regional etc. levels as well as private analytics which will not be available for the competitors.

Fractalies as the ecosystem covers all the interactions above between all stakeholders (buyer, supplier, factor, logistic company).





# COMPETITORS ANALYSIS



## **ENDO**

Blockchain platform for varied internal corporate needs with certified data verification protocol for developers - it is assumed that business applications can be build on that platform

The logo for re:factor, featuring the word "re:factor" in white, lowercase, sans-serif font inside a purple circle.

## **R.E: FACTOR**

Focus on emerging markets, platform which enables factoring companies to refinance their portfolio through P2P investments, making receivable assets tradable



## **HALALCHAIN**

Global Halal product ecosystem to control and monitor the Halal food industry certification system focused mainly on the Islamic market



## **SILKCHAIN**

Looks very similar, but is actually very different to the Fractalies platform, a high level global market place with additional services: P2P payments, loans, trade finance and B2C services for micro and SME business (such as chats, games etc.)

The logo for SHIPCHAIN, featuring the word "SHIPCHAIN" in a bold, orange, sans-serif font.

## **SHIPCHAIN**

Shipping monitoring / tracking system on blockchain

# COMPETITORS ANALYSIS:



EXIMCHAIN

## EXIMCHAIN

The platform which gives transparency around SME segment logistics, showing Credit Ratings that can be used by financial institutes to determine lending decisions. However, this could be irrelevant to large scale retailers because this system does not give them any extra advantages



TE-FOOD

## TEFOOD

Limited to monitoring of B2C delivery



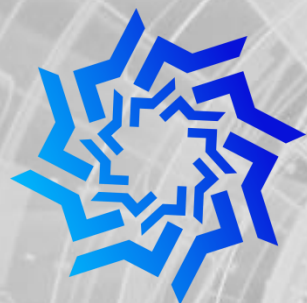
origintrail

## ORIGINTRAIL

Protocol on Blockchain that can be used as a basis for Supply Chain Management platforms

## CONCLUSION:

There are several solutions in the Blockchain market that target the replacement of the current classic systems or look unrealistic or irrelevant to the needs of supply chain market participants. We believe that the platform will be accepted by the market only if it provides benefits to all participants at all stages of the end-to-end supply chain management process.



**Fractalies**

**THANK YOU !**

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