SMDG Blockchain Subgroup

Welcome and introduction of your host

74,000 professionals

82% Member shareholders

150 IP-based solution

40 countries

400 locations

9/10 average client satisfaction score

95% Projects on-time, on-budget

$10.8 B* turnover annually

5,000 clients worldwide

10 Industries
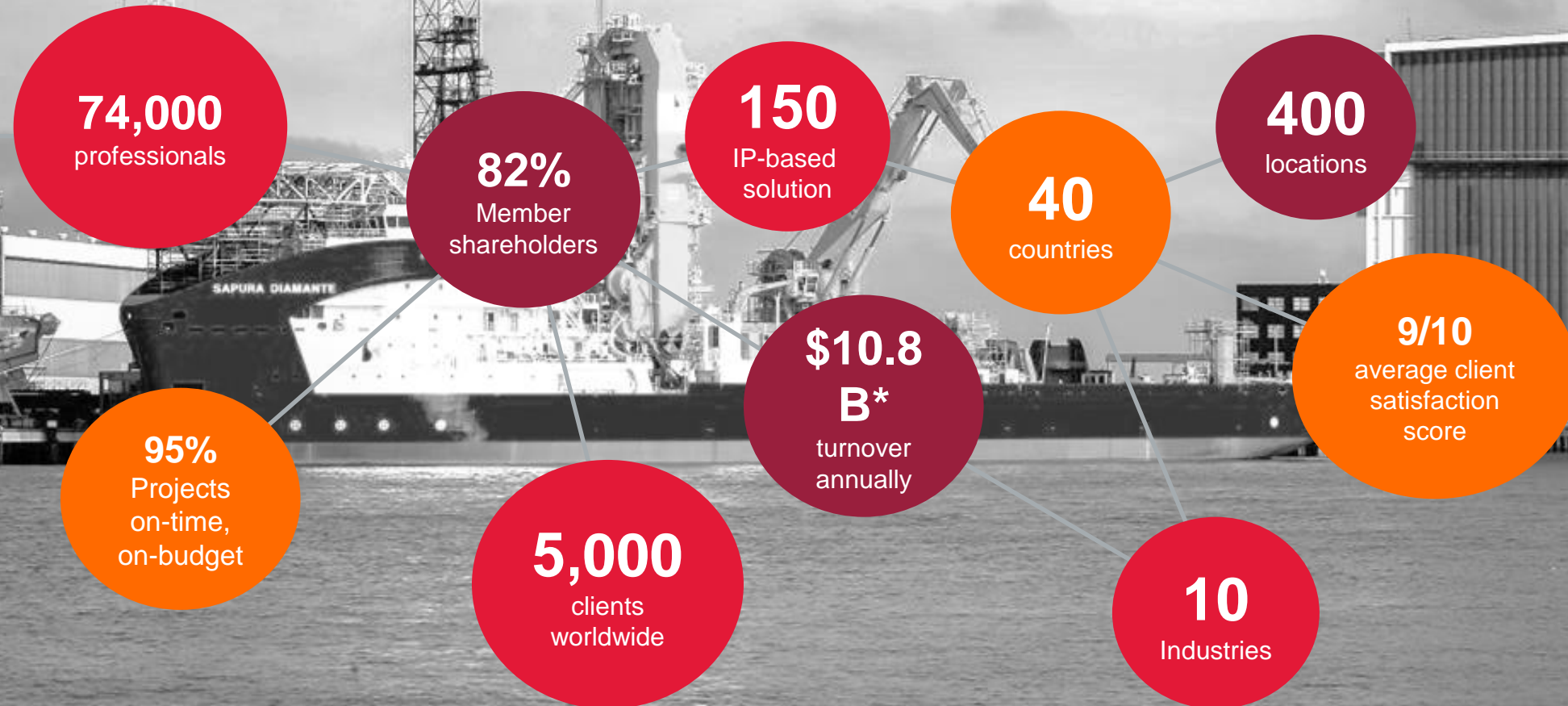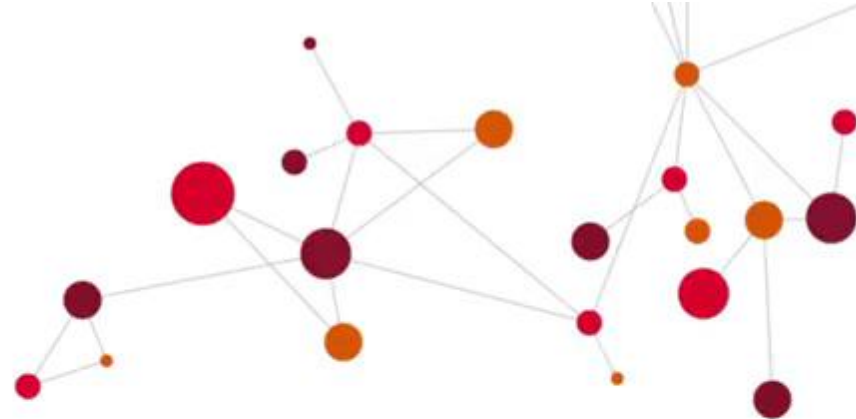
Move Smarter:

Helping the Netherlands to stay competitive

CGI

Blockchain as an emerging topic

SMDG Blockchain Subgroup

Numerous ecosystems are on the rise in logistics

Partnership
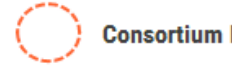
Consortium Participation / Initiative

2017

2018

Date initiative

SMDG

Missions

- Explore and identify the advantages and building blocks of blockchain to accelerate and improve maritime processes

- Explore and identify how Blockchain platforms work and how blockchain may be beneficial for current business pains.

- Explore a shared roadmap to apply the use of blockchain in practice and build best practices for the industry.

Target outcomes

- Shared knowledge of blockchain and its adding value applications

- Shared understanding of process wide business pains and how blockchain might help

- Shared ideas, supported roadmap and the energy & resources for next steps

How to transfer trusted value across the supply chain

Part 1: Introduction on Blockchain and the industry challenges

11:00: Welcome, introduction and goal of today

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12:00: *Workshop*: Current challenges subgroups on all 4 layers + Presentation

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16:00: closing

Introduction Blockchain

3000 BC

1890
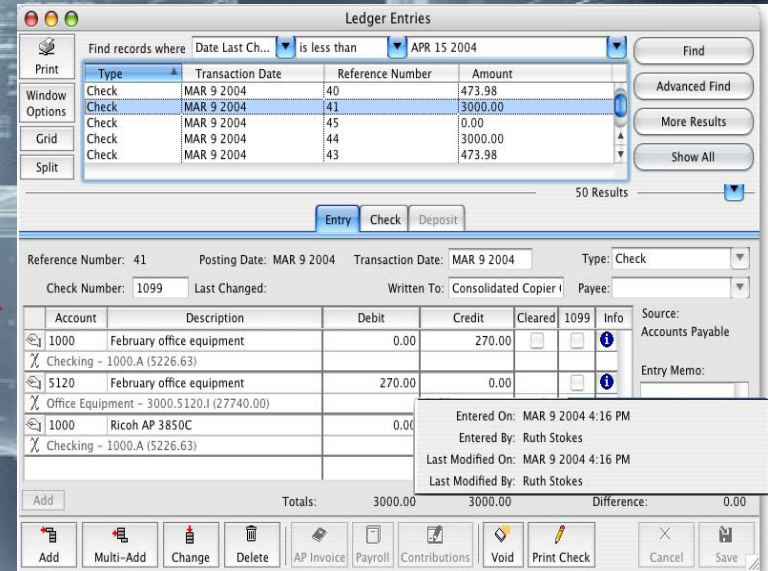
1972

Consensus
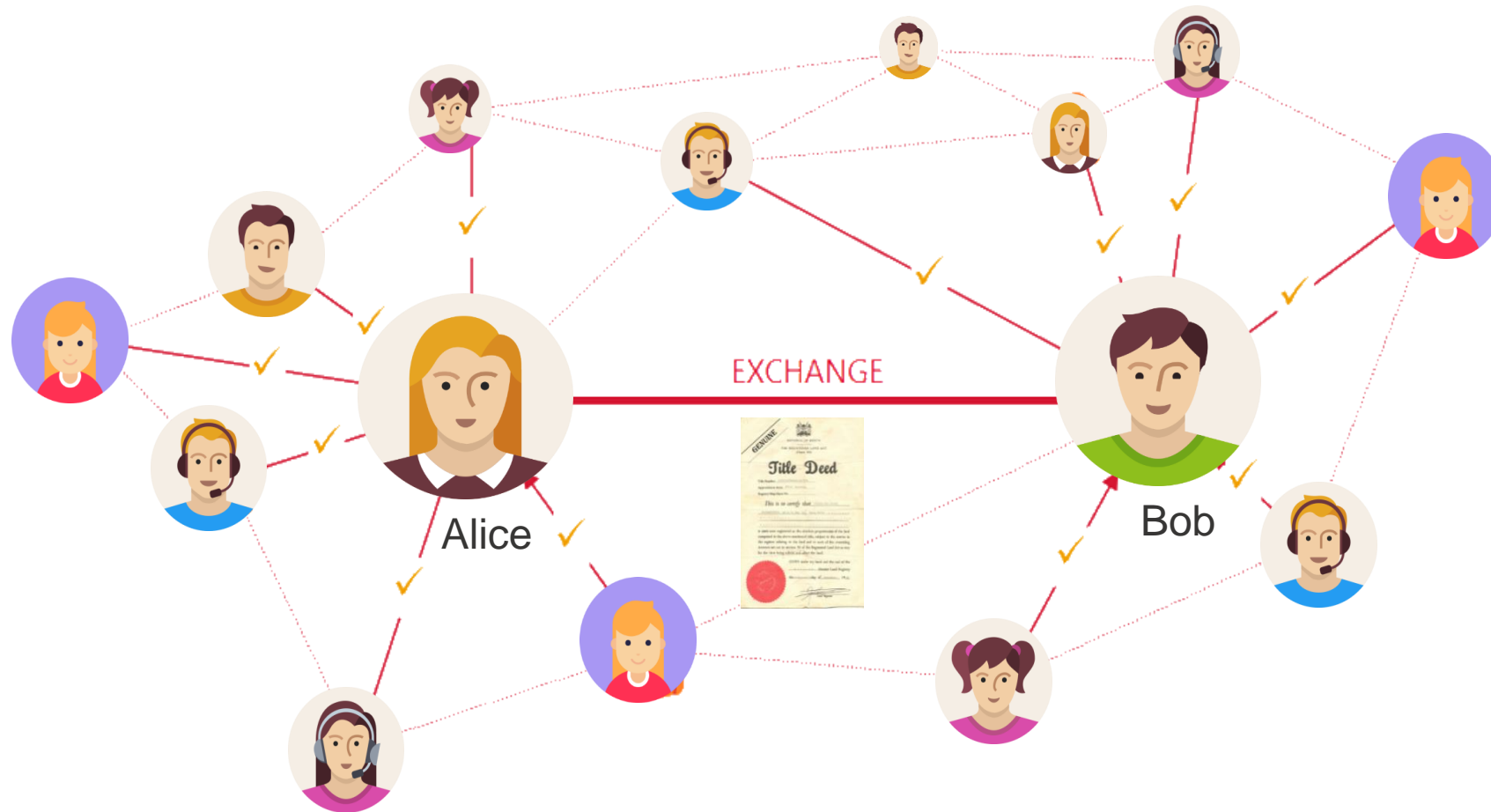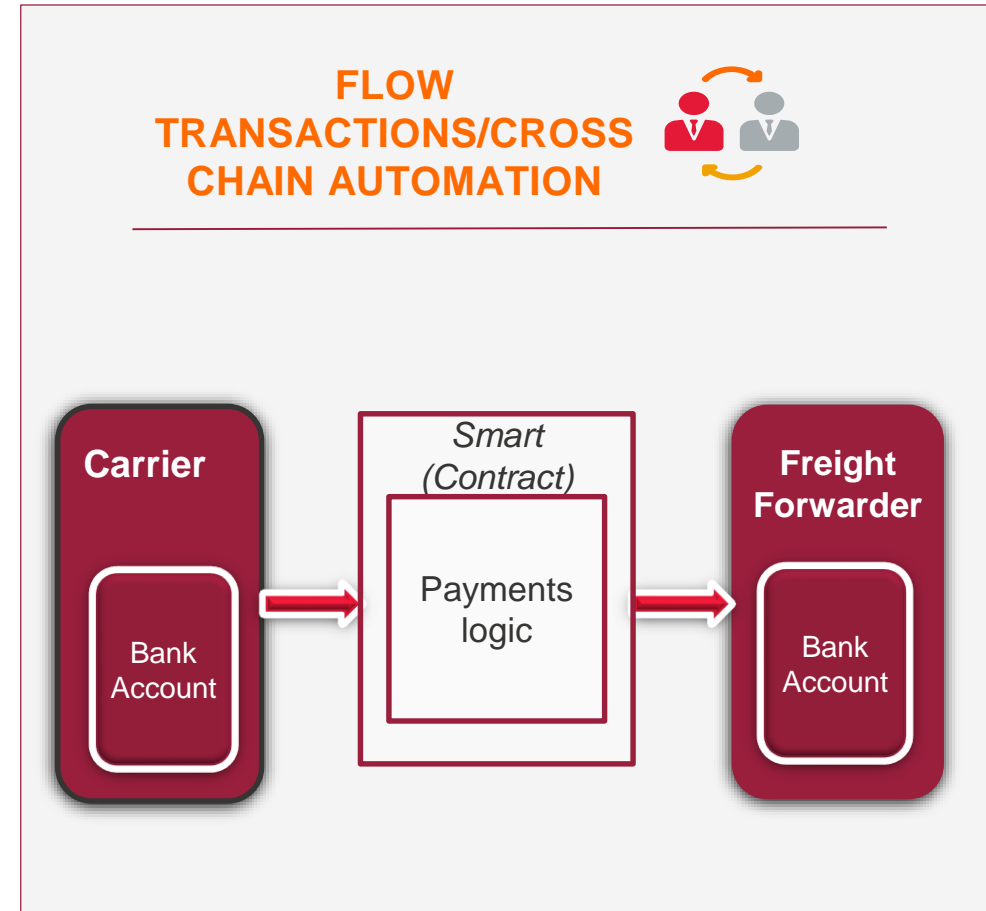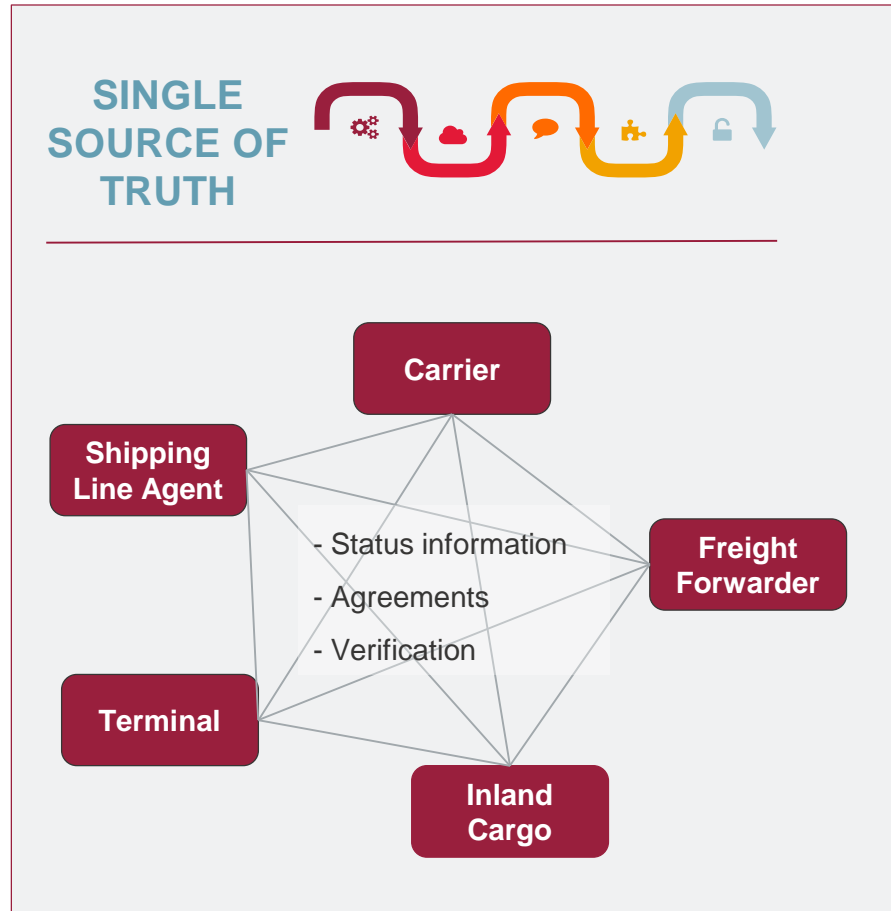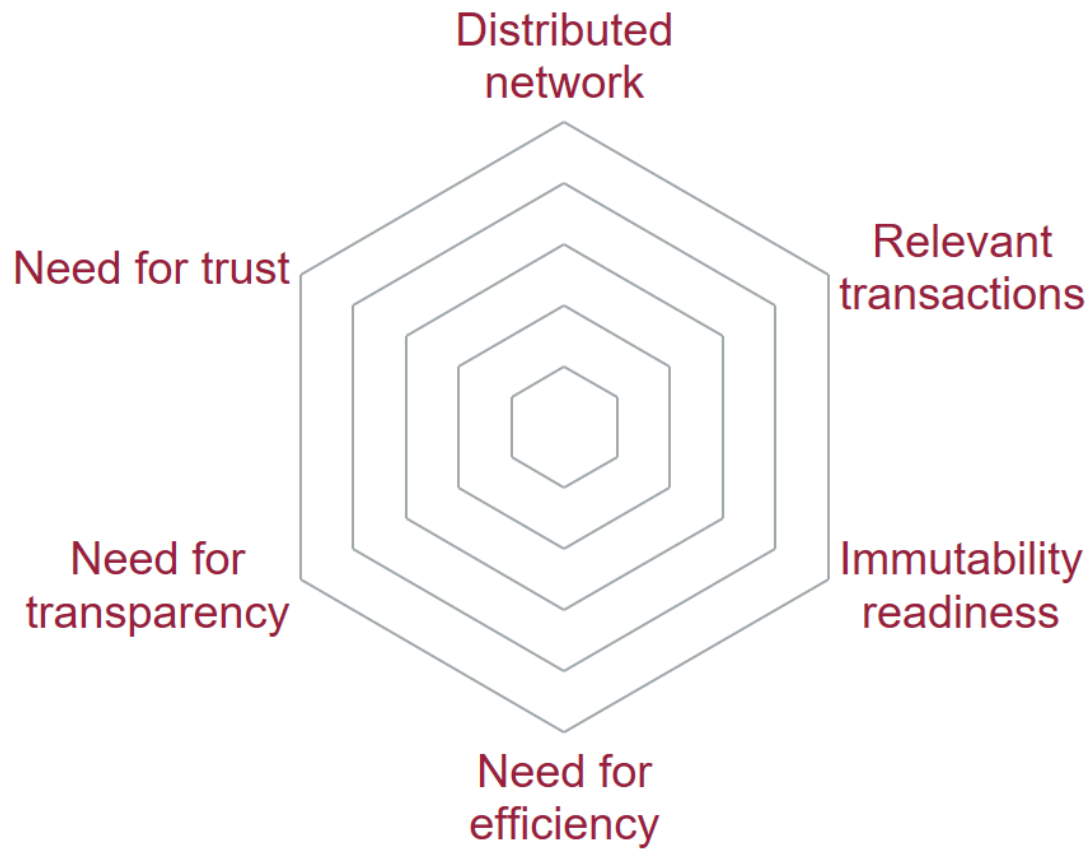
EXCHANGE

Title Deed

Alice

Bob

Two big values

SINGLE SOURCE OF TRUTH

Carrier

Shipping Line Agent

Freight Forwarder

- Status information
- Agreements
- Verification

Terminal

Inland Cargo

FLOW TRANSACTIONS/CROSS CHAIN AUTOMATION

Carrier

Bank Account

Smart (Contract)

Payments logic

Freight Forwarder

Bank Account

Type of blockchain use case that might apply

CONSOLIDATION

FLOW TRANSACTIONS

SINGLE SOURCE OF TRUTH

Distributed network

Relevant transactions

Need for trust

Immutability readiness

Need for transparency

Need for efficiency

- **Data is being disputed among parties.**

  - No single source of truth regarding the statuses of goods - Lack of trust among the supply chain - Continued "blind spots" across organizations and geographic boundaries

  - Data is trapped in organizational silos- scattered around the supply chain in different systems.

- **Too many manual, time-consuming processes that increase costs and delay cargoes**

- **Inconsistent data and unable to share information across supply chains.**

- **Inefficient clearance and handover processes which can lead to fraud**
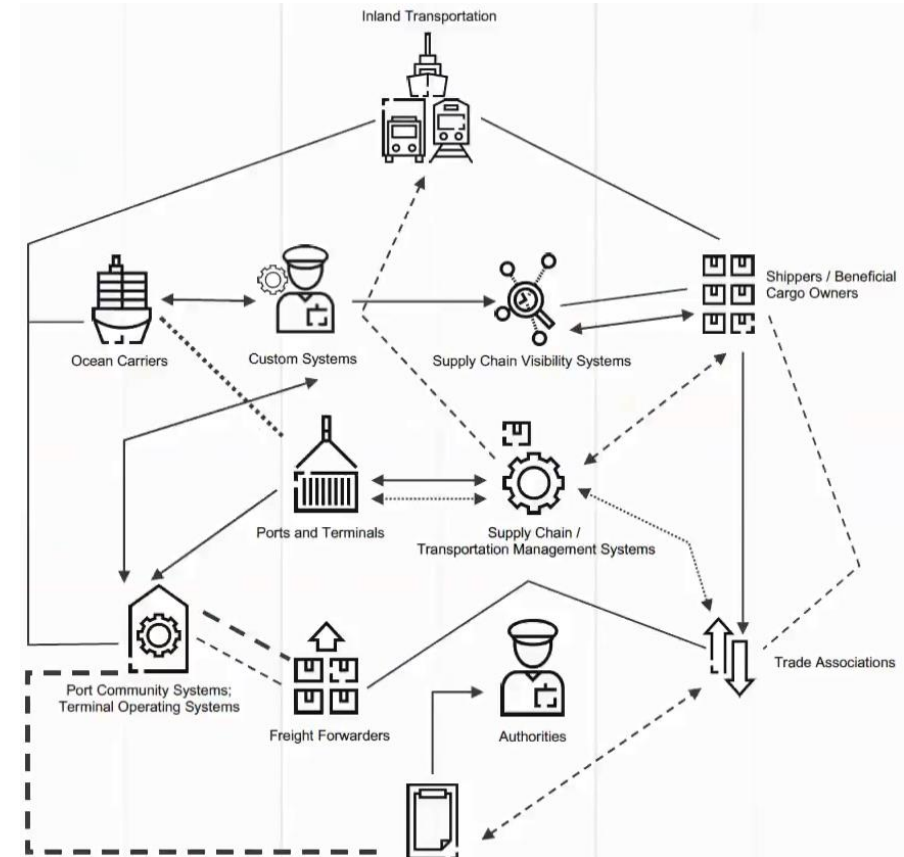
Commercial release

Layer of automation and layer of trust

Layer of Automation
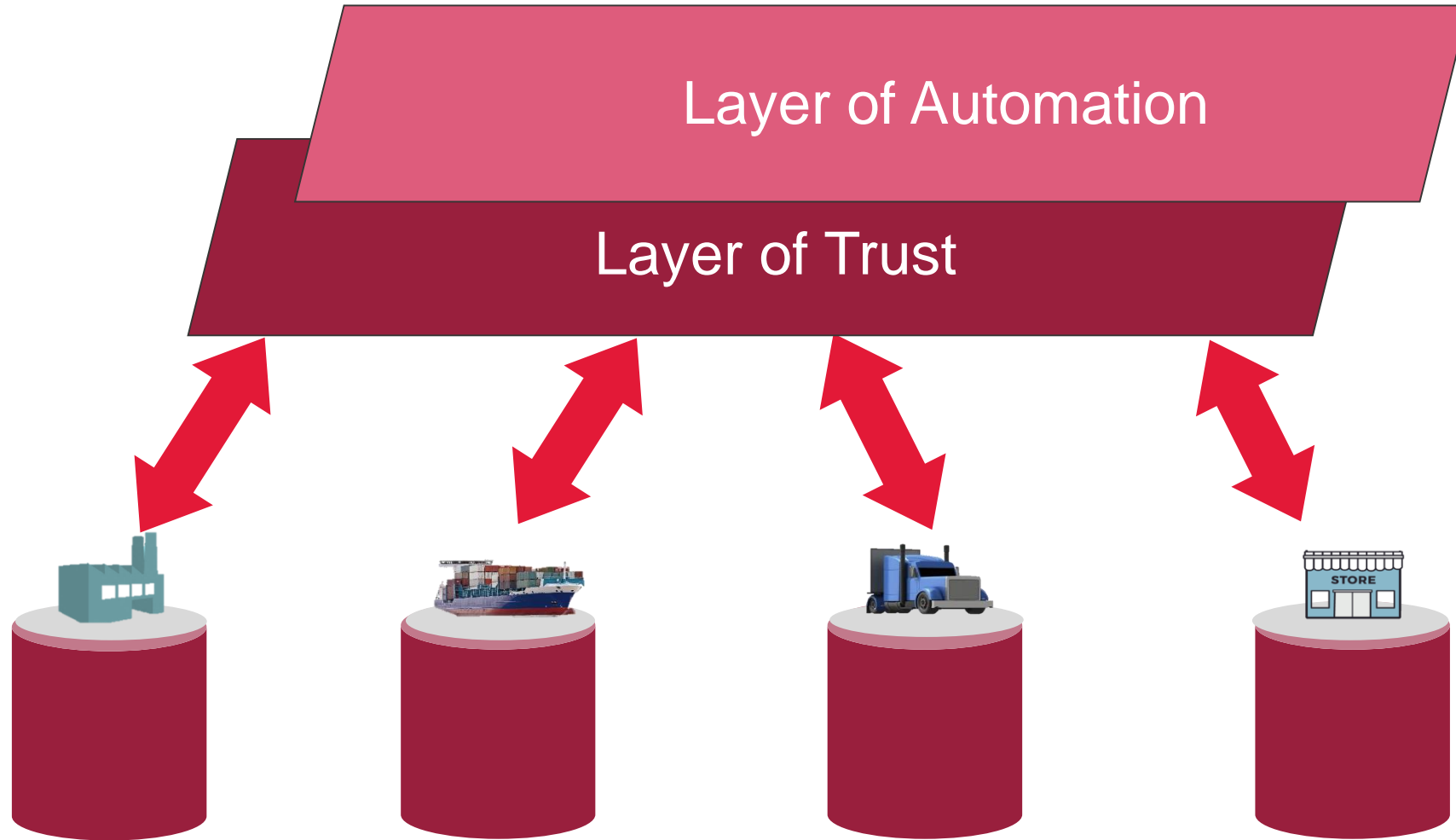
Layer of Trust

Advantages

Trust

Transparancy

Efficiency

Safety

Layer of trust example:

- The provenance and authenticity of goods;

- The stated value of goods for the purposes of insurance, duties, and payment; promises to pay;

- The protection of goods during shipping (i.e. integrity of packaging, vehicle and container conditions, etc.);

- The integrity of information that is used by regulatory authorities for the risk assessments which determine inspections and clearances;

- The traders and service providers involved in a trade transaction.

Source: UN/CEFACT

17

Blockchain as a layer of trust

Layer of trust example:

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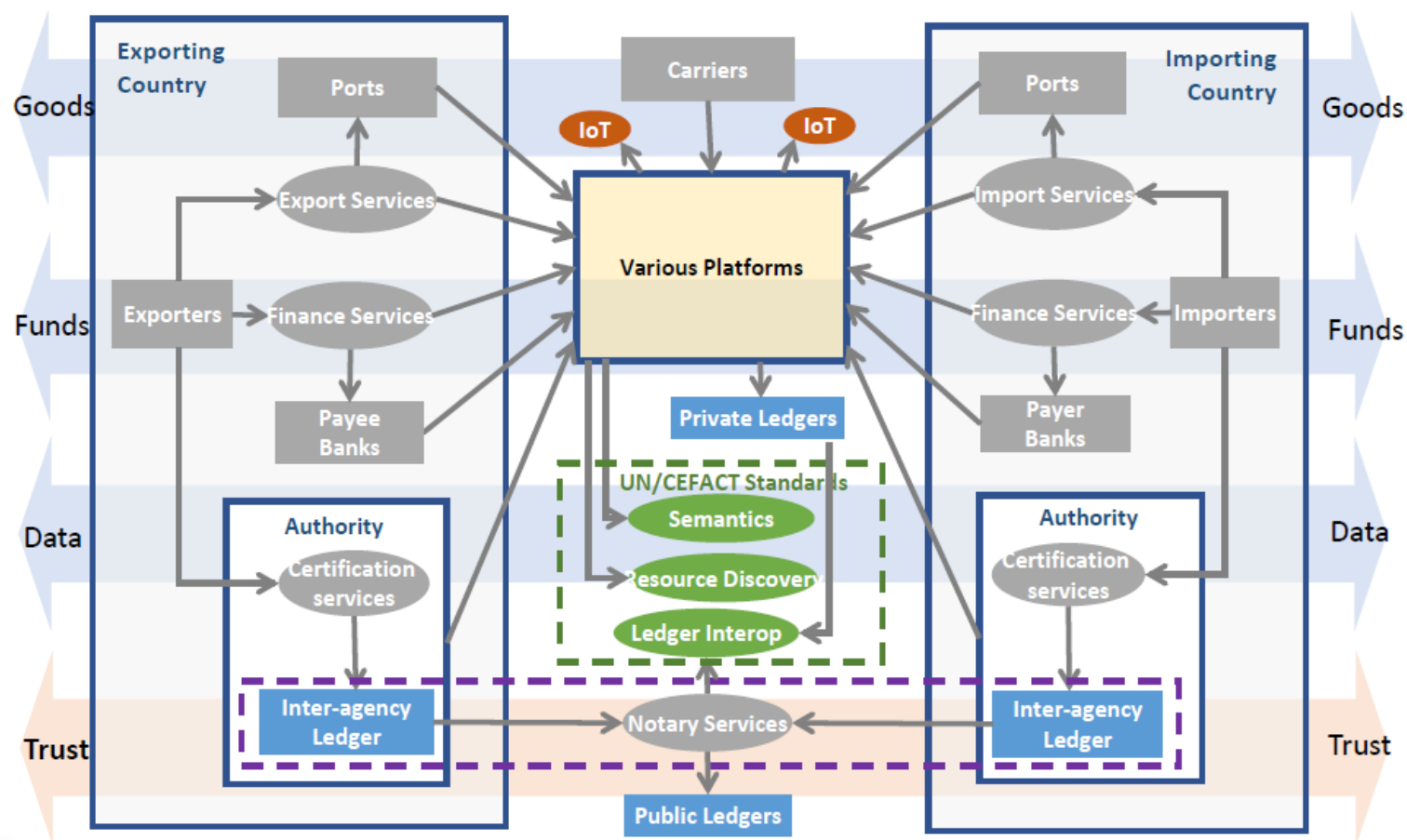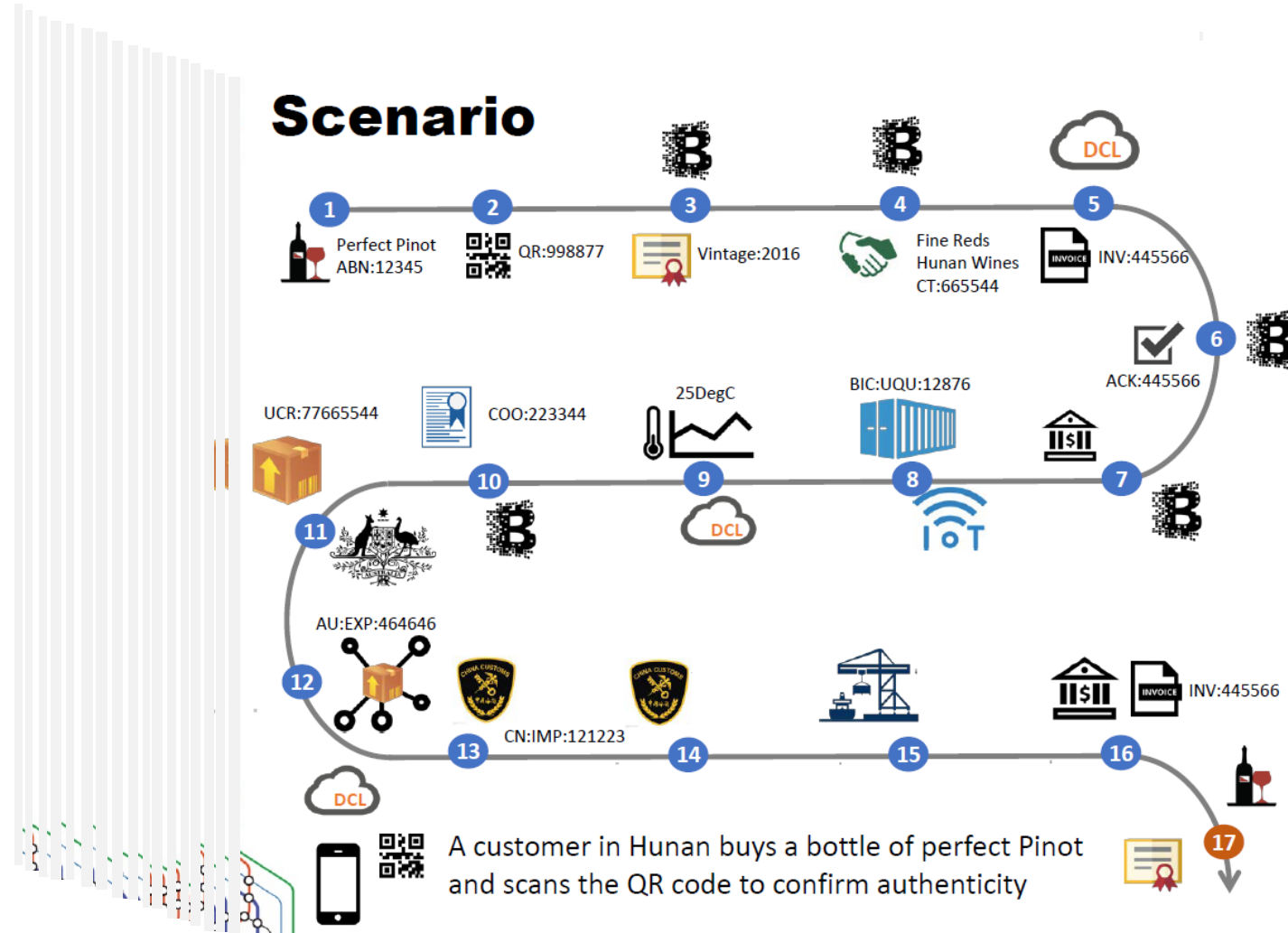
Workshop – Current Challenges

Exercise

- UN-CEFACT models identifies 4 layers
  - Goods
  - Funds
  - Data
  - Trust

- Take your main process as a carrier, terminal or LSP
- Plot your biggest 5 challenges on every layer (1 page for each layer!)
- Be ready to present
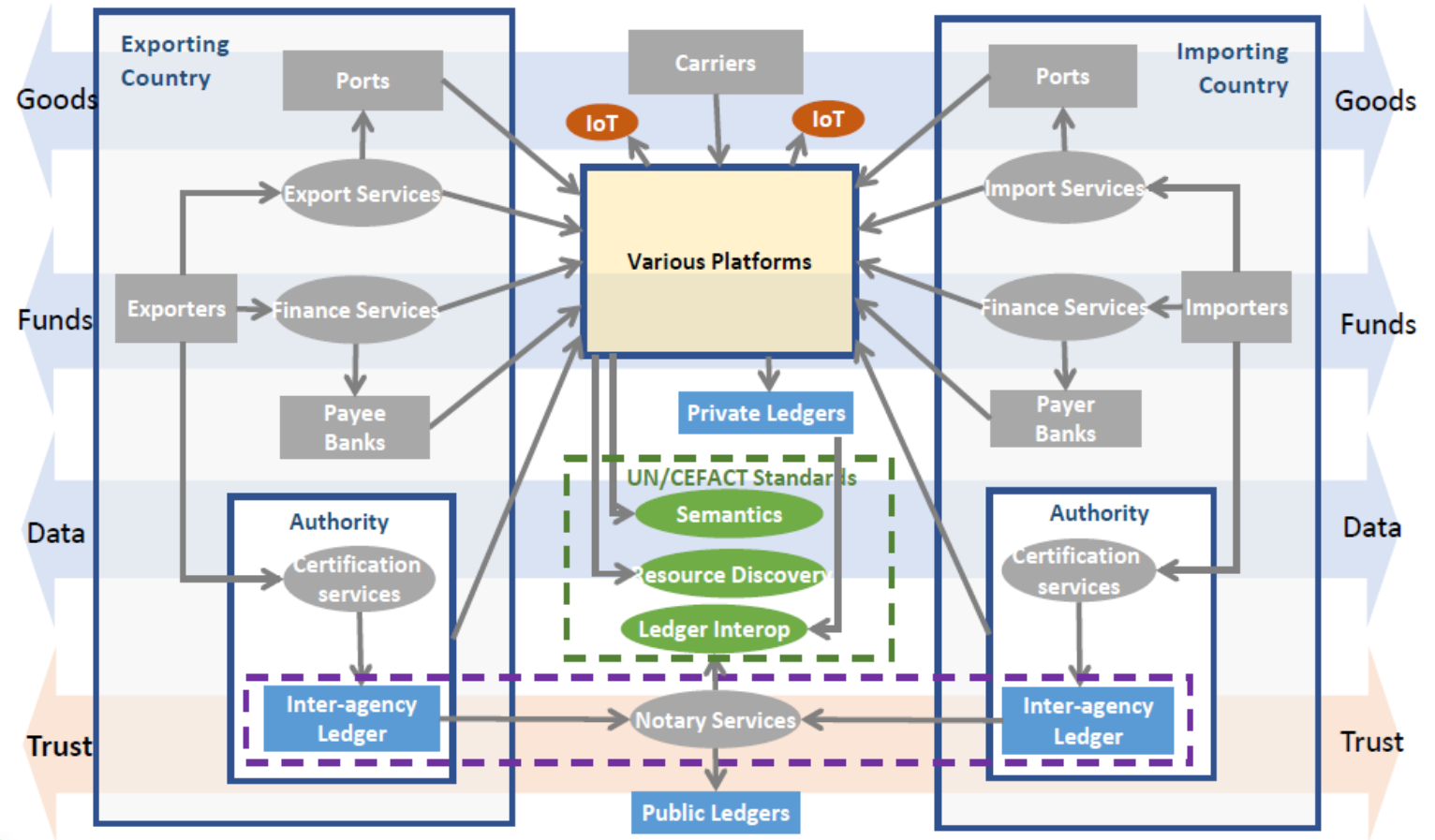
Terminal & Carrier groups

#	Carrier			Terminal/Port	
1	Hamburg Sud	Thomas Kwast		ECT Delta Terminal	Marcel Waard
2	Hamburg Sud	Pujan Ghanbari		Rotterdam World gateway	Robert Roestenburg
3	KLU	Naouar Elkhadiri		portbase	Marcel Coumans
4	Blocklab	Aljosja Beije		PSA Antwerp	Paul Wauters
5	Hyland Software, LLC., Westlake, OH	Raymond Schraff		Port of Rotterdam	Chris van Oosten
6	GEFEG mbh	Tayfun Merme		Malta Freeport Terminal Ltd.	Jesmond Baldacchino
7	Navis	Ashish Panda		Eucon	Melissa Clinton
8	Commodity Supplies AG	Ashot Arakeljan		Independent consulatant IT Germany	Rainer Hartmann
9	ABN AMRO	Bob Gravestijn			

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Presentation

Exercise

- We just drew the biggest pain-points of our current operations on process, finance, data and trust level

- Per pain point: Would this be a good fit to be solved with blockchain (Which BC elements are valuable?)

- How would solutions look like/how can it work?

Type of blockchain use case that might apply

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FLOW TRANSACTIONS

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Trust	Transparency	Efficiency	Safety	Flexibility
Uniqueness /no Double Spend	Immutable (Data and logic)	Autonomy (executes what is programmed to do)	Consensus majority model	Cryptographic ally Secure

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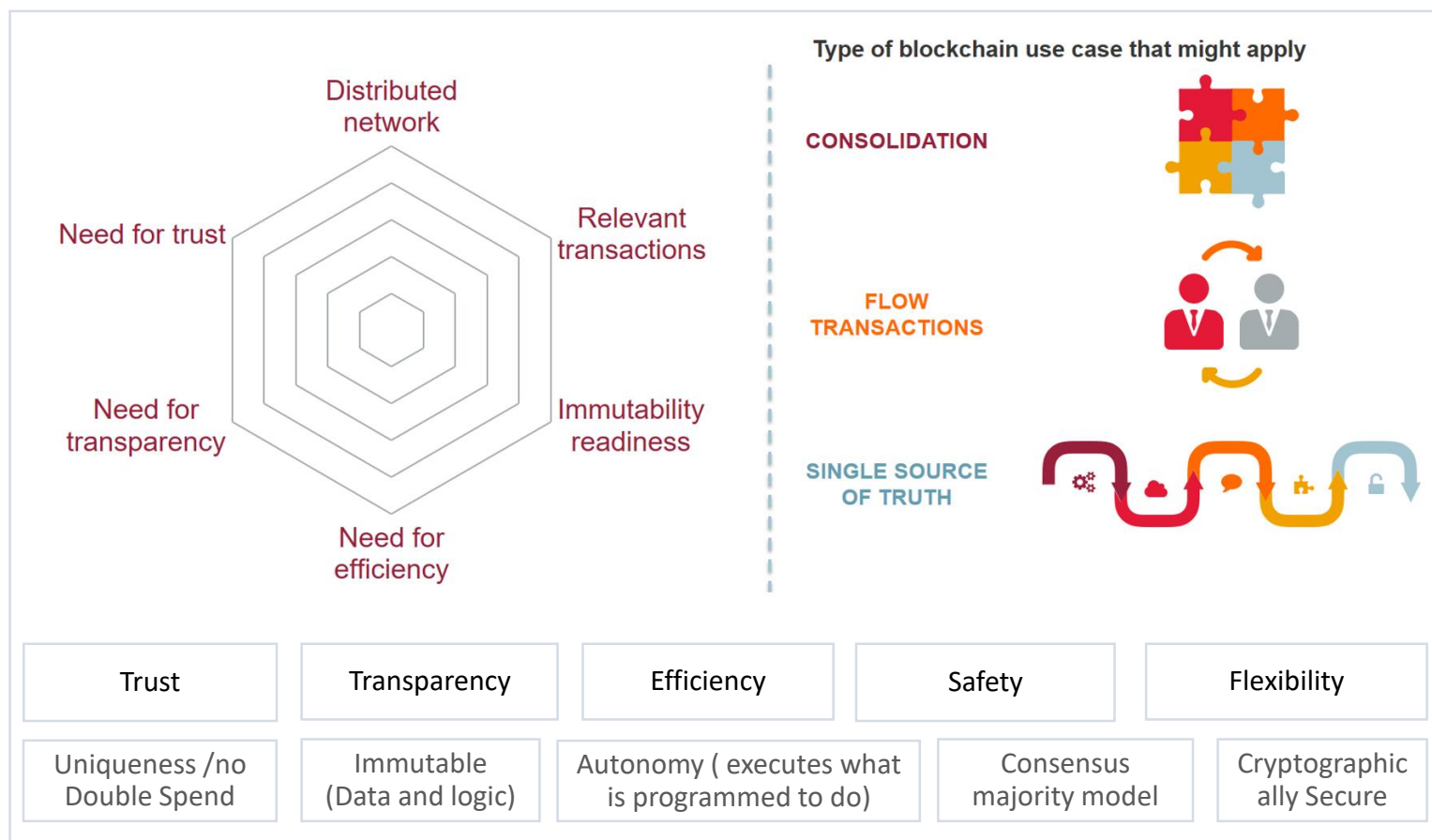15:45: Actions, next steps and resources

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What would be the best idea's?

Identify the idea's with the biggest potential

Can we make connections between idea's?

What would be the next step?

- Score the best 3 idea's

- Identify the connected idea's, inputs and outputs

- Who like to take which role? What is the ambition of SMDG and Deliver? How to make it happen

Reflection and closing – satisfied?

Expectations

- Explore and identify the advantages of blockchain to accelerate and improve maritime processes

- Explore and identify how Blockchain platforms work, how interoperability might work and how blockchain may be beneficial for your current business pains.

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