



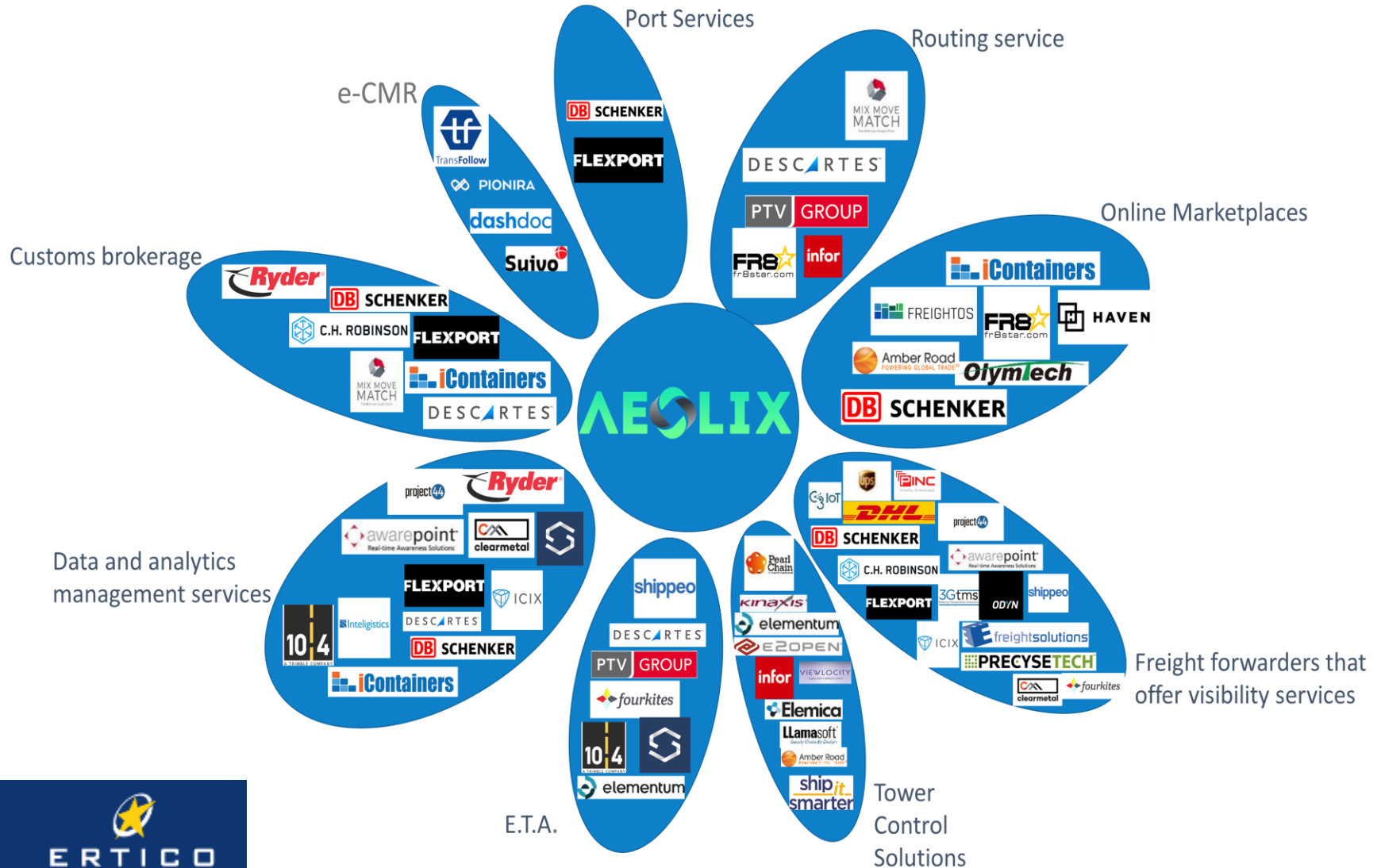
**ERTICO**  
ITS EUROPE

**AEOLIX**

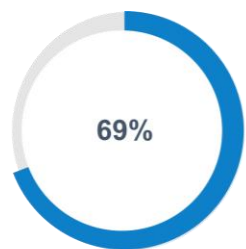
# AEOLIX project



# An industry in transformation: Consolidation



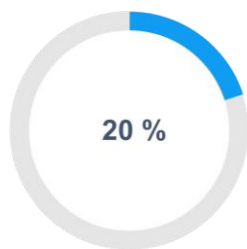
# Consolidation and fragmentation in the logistics industry- The 45+



69%

## Visibility services

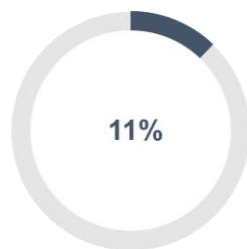
The majority of the analysed market considered SC visibility as one of the most innovative services in the industry



20%

## Marketplace

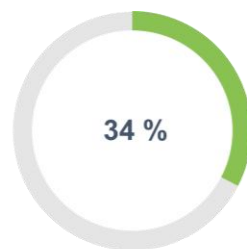
A small percentage of companies operates an online platform



11%

## Routing

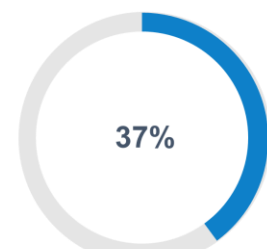
Routing is between the least widespread services among the companies



34%

## Data and documents management

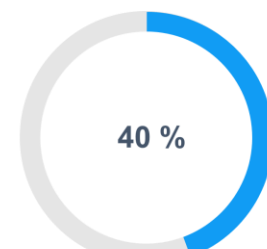
One third of the companies are using data and documents management software



37%

## Data exchange (one-way or two-way)

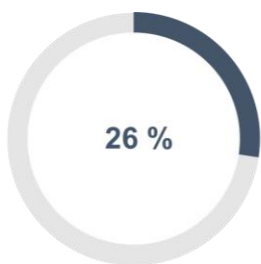
There is some sort of data exchange between these users



40%

## Data collection

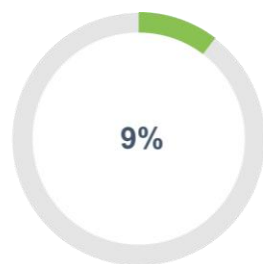
Less than half studied business had a way to collect data for the user to analyse



26%

## TMS service

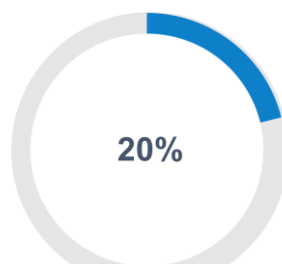
Transportation Management Software packages were offered to businesses in order to make their processes easier



9%

## Event/ risk prediction

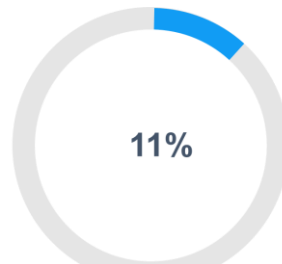
Approximately 1 out of 10 companies offer through predictive analytics and hardware, services related to risk or events



20%

## Estimated Time of Arrival (ETA)

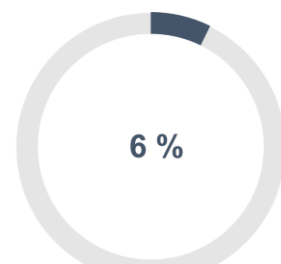
ETA, unlikely visibility services is not a common service



11%

## e-CMR

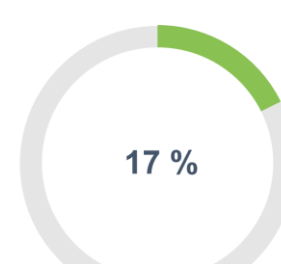
e-CMR documentation is starting to be offered in applications



6%

## Port services

A very small portion of the analysed companies offers services at the ports



17%

## Custom brokerage services

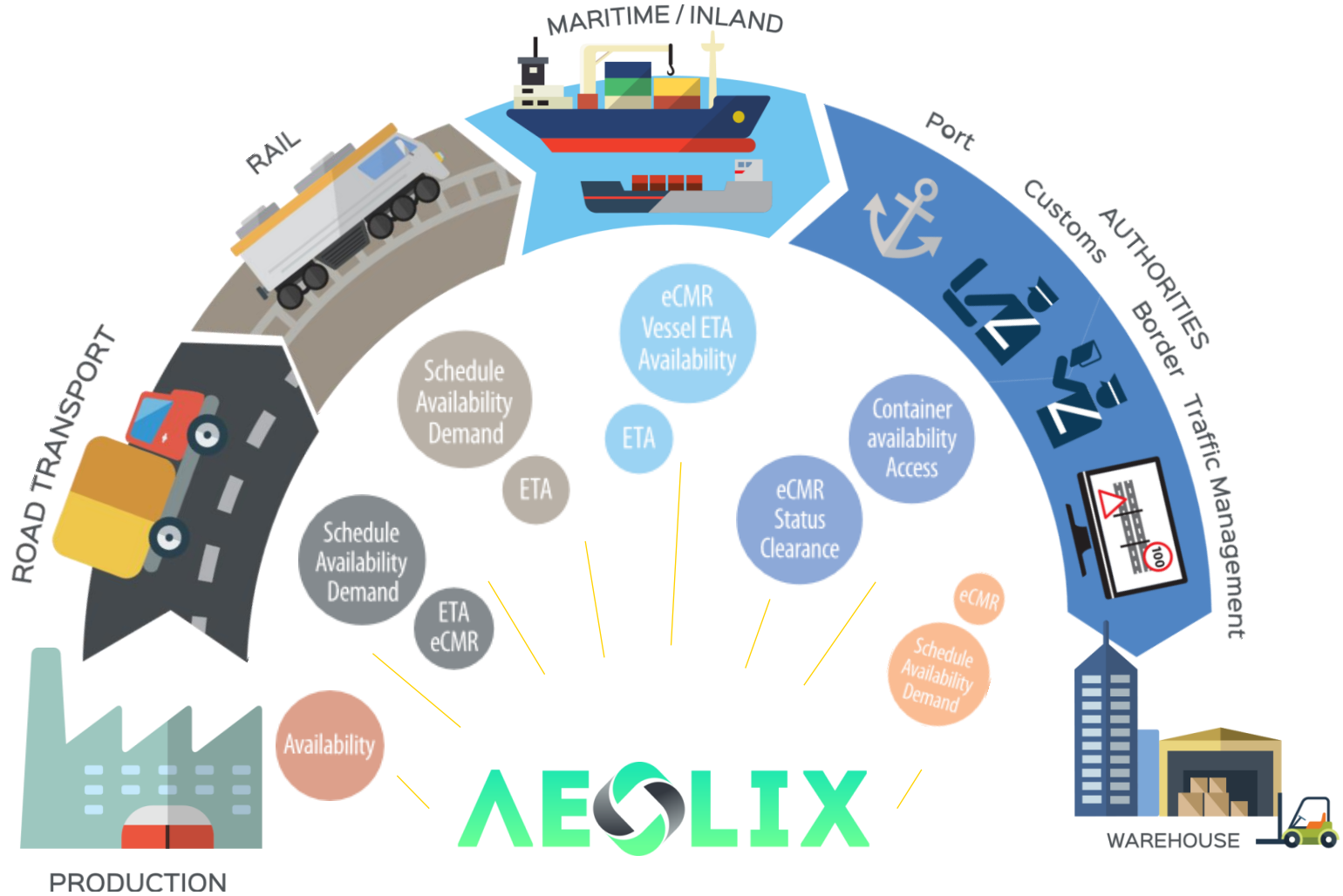
out of 6 companies provide services at the customs

# What is shaping the future of global logistics markets?

- Supply chain visibility will soon be standard business practice (2-5 years)
- AI and Block chain (10+ years)



# AEOLIX vision



# AEOLIX end to end visibility network

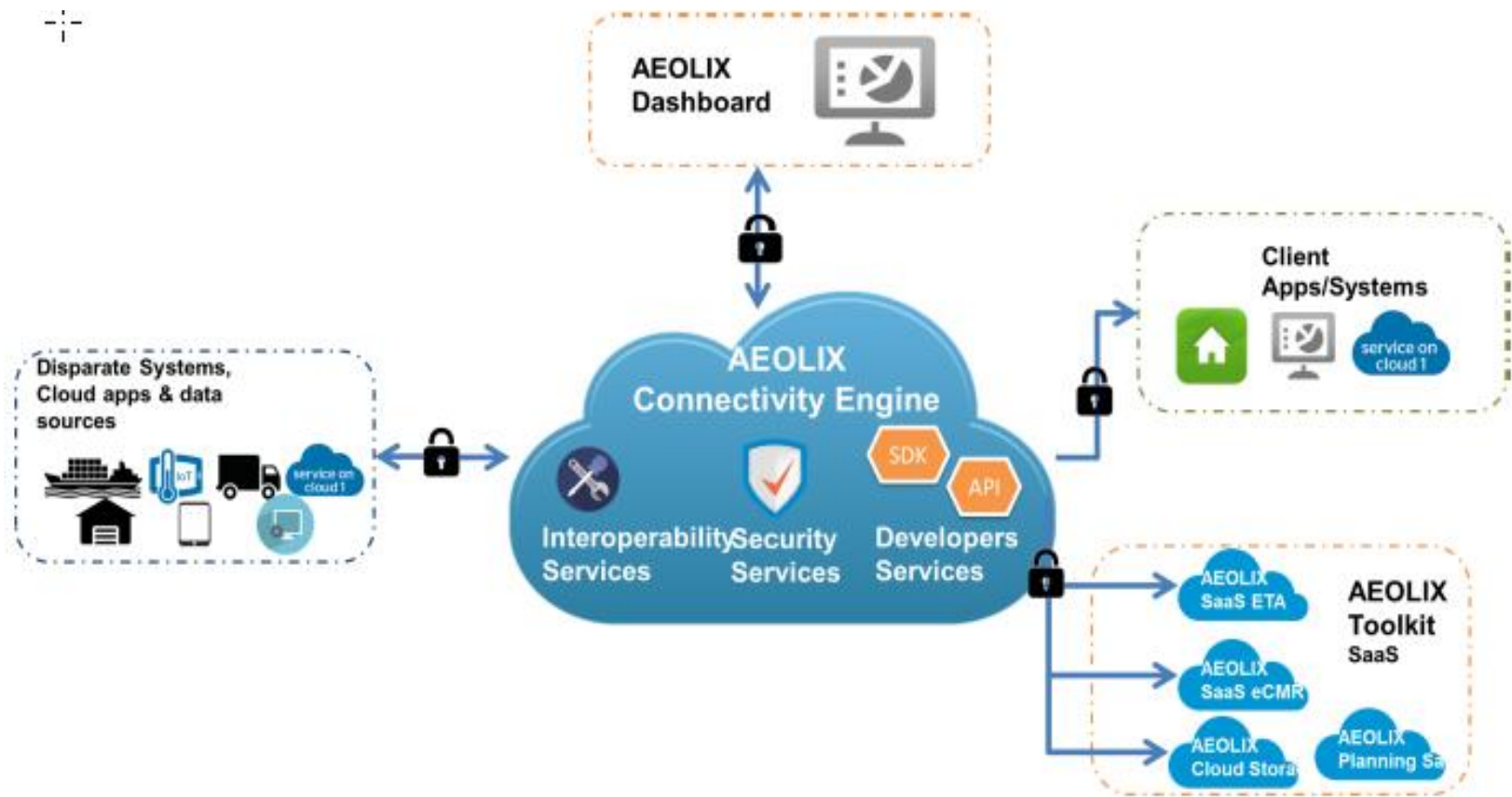
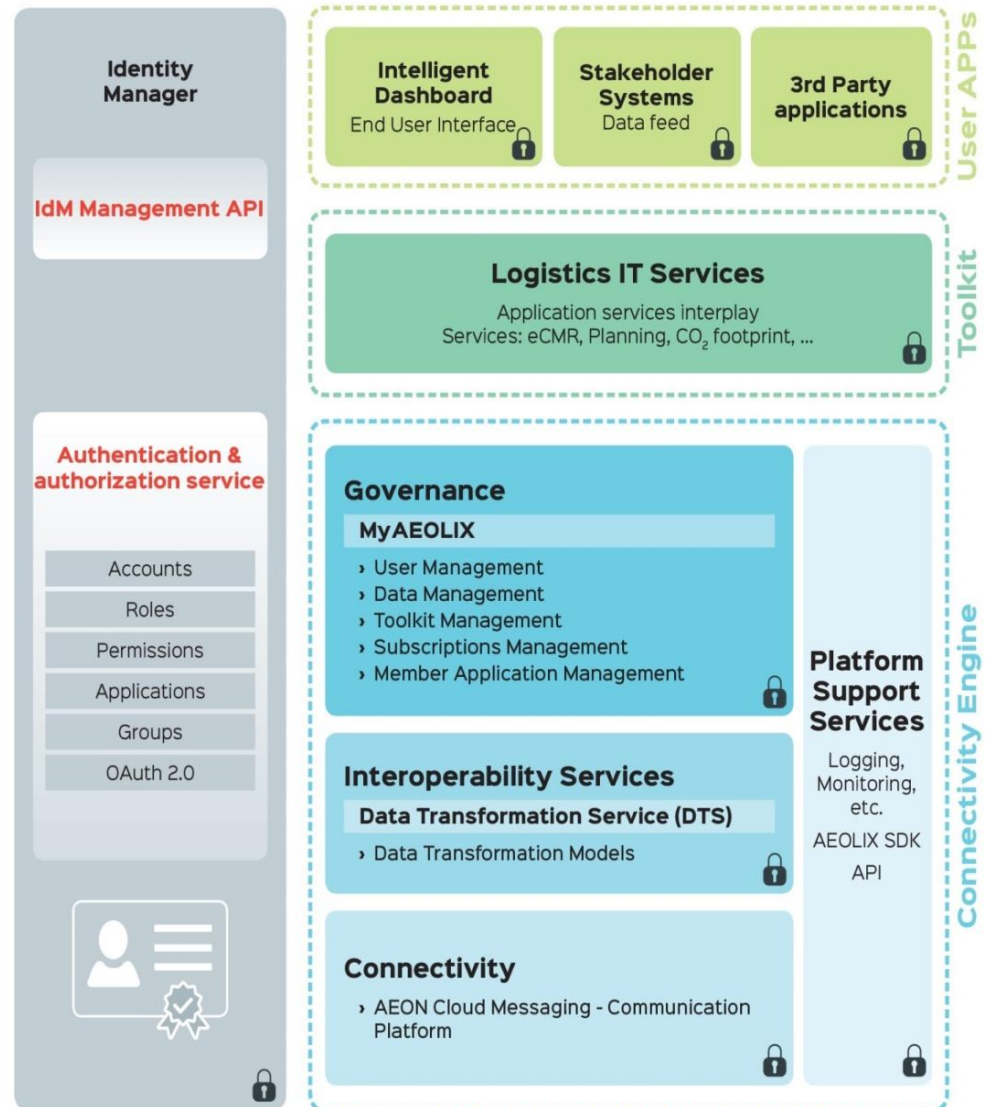


Figure 1. AEOLIX Platform High Level Overview

# AEOLIX end to end visibility network

- AEOLIX network
  - cloud-based
  - multi-enterprise
  - “many-to-many”
- Captures and streams data real-time
- Automatically translates “data format” from different IT systems
- Giving organisations the ability to rapidly respond to issues through a customised dashboard.



# AEOLIX Connectivity Engine

my **AEOLIX**

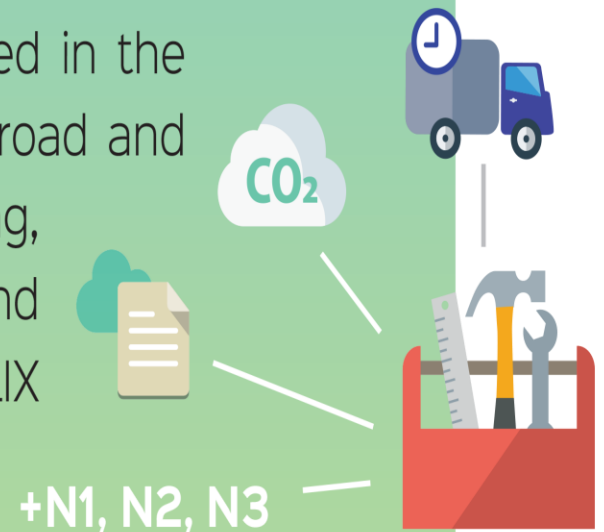
Responsible for providing the connectivity and interoperability services and supporting seamless data exchanges between organisations and services. These technical services provide the architectural setup; (1) connecting the end-user with its many business partners and systems in their networks; (2) allows for interoperability and governance services; the information exchange between different systems; partner/ system interactions and data sharing management rules.





# AEOLIX Toolkit

Core logistics services to support and implement the business needs of AEOLIX end-users. Examples of services offered in the toolkit are: E-CMR, routing, planning services for road and intermodal service, ETA service, CO<sub>2</sub> monitoring, dangerous goods transport management, and more. Toolkit services can be used via the AEOLIX connectivity engine by applications, services and sensors or interplay with other toolkit elements.

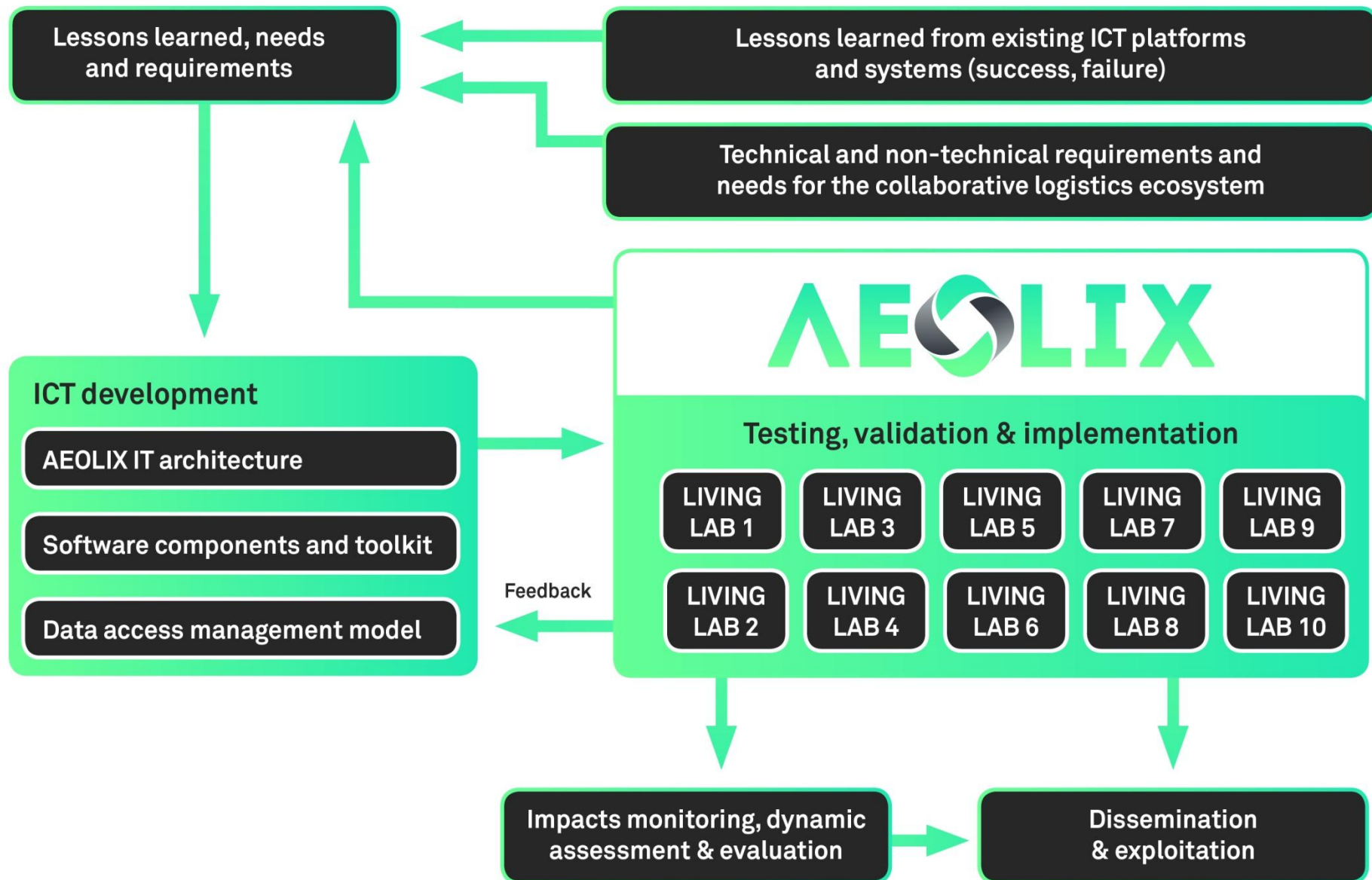


# AEOLIX Dashboard

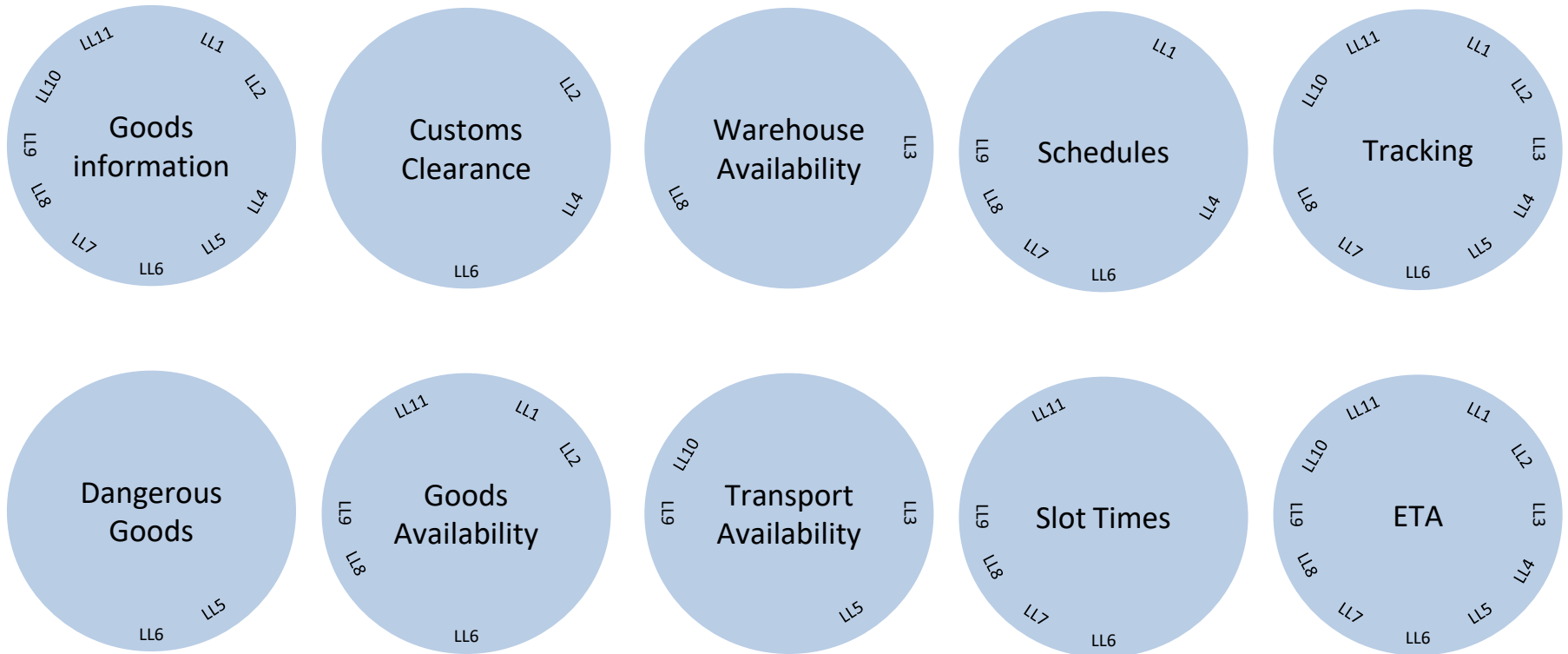
An intelligent, user configurable web application, which serves as a dedicated portal to the AEOLIX Platform. It manages and enables access to end-to-end logistics visibility by sharing data of the logistics partners via the Connectivity Engine (CE). It enables intelligence to be added to the data from within the dashboard and enables access and mobilises applications from the toolkit.



# AEOLIX Work packages



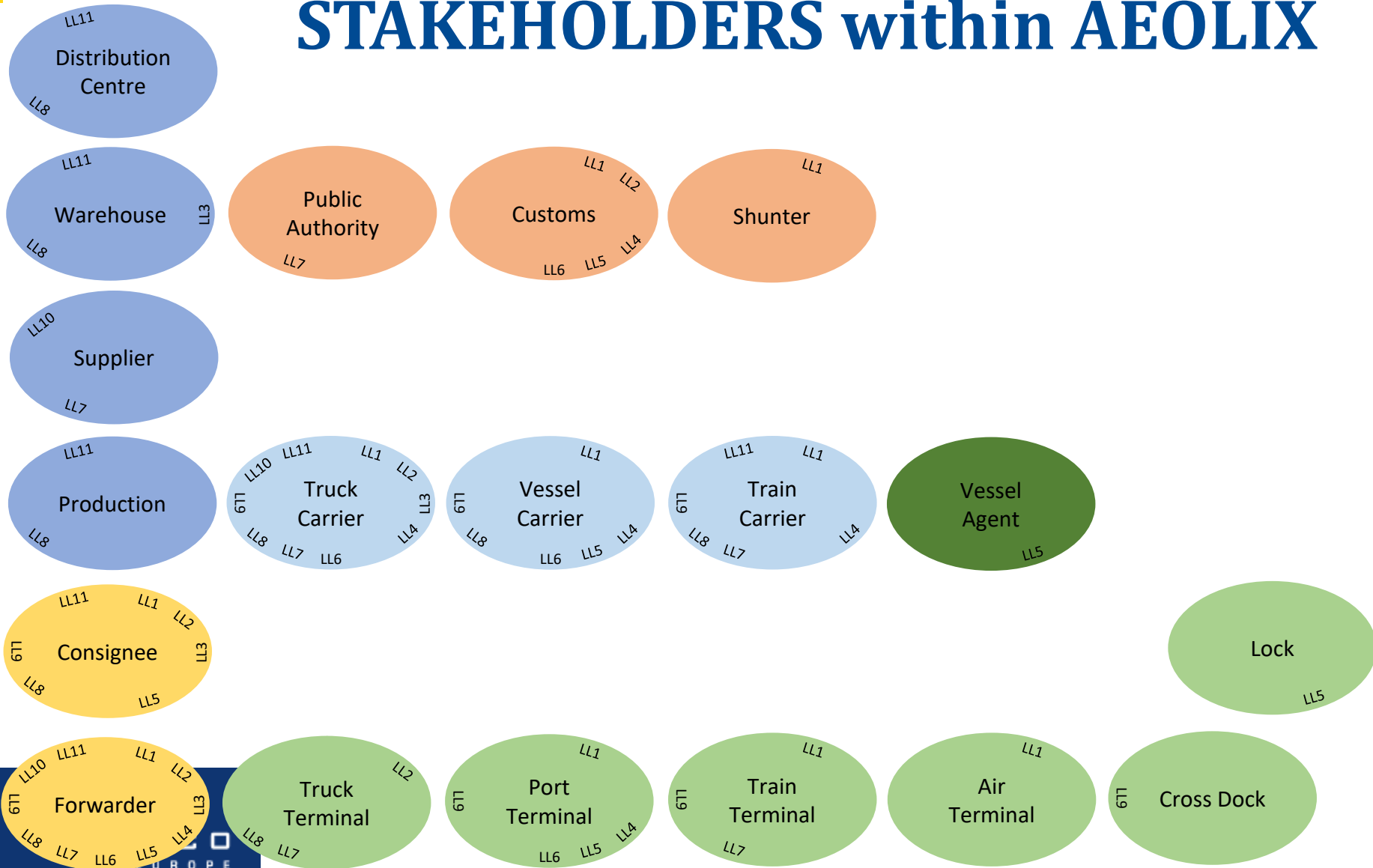
# Main information data within AEOLIX



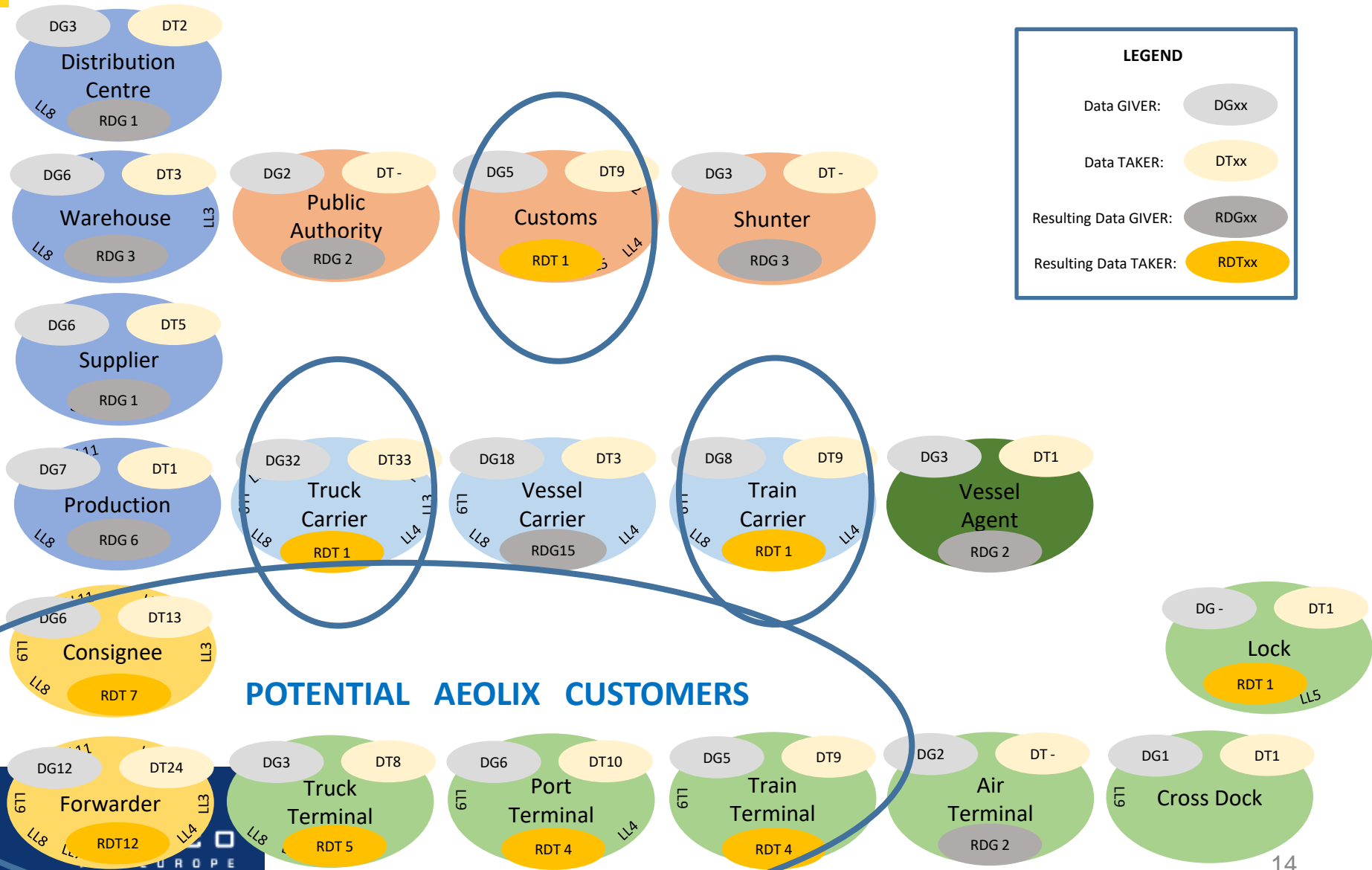
Summary of the main information types to be communicated within AEOLIX  
Source: D5.3; presentation proposal Chalmers

# Main information flow

## STAKEHOLDERS within AEOLIX



# Main information flows within AEOLIX





# Logistics Living Labs

AEOLIX is testing, validating and demonstrating the collaborative logistics ecosystem in a number of living labs which cover all the nine TEN-T corridors.

- I** INTELLIGENT HUBS
- M** MULTI-/SYNCHROMODAL TRANSPORT
- N** NETWORK OPTIMISATION

**LEGEND**

- C** CUSTOMS
- W** WAREHOUSE (Production)
- T** TERMINAL

ALL LL's : CARRIERS & FORWARDERS

- ★** PROGRESS

**Living Lab 8:**  
UK - Europe - Far Eastern Logistics Control Enhancement - Northampton (UK) and mainland Europe

**Living Lab 9:**  
Cross Chain Collaboration - Rotterdam, Venlo (Netherlands), Duisburg (Germany), Milano (Italy)

**Living Lab 10:**  
Collaboration in automotive Industry - Galicia (Spain)

**Living Lab 6:**  
Intelligent Port and City - Port of Bordeaux (France)

**Living Lab 2:**  
Termi Lab - NTEX terminal network, hauliers, customs operatives (Sweden and around the North Sea)

**Living Lab 7:**  
FMCG Logistics - Malmö intermodal terminal, COOP central DC in Bro (Sweden)

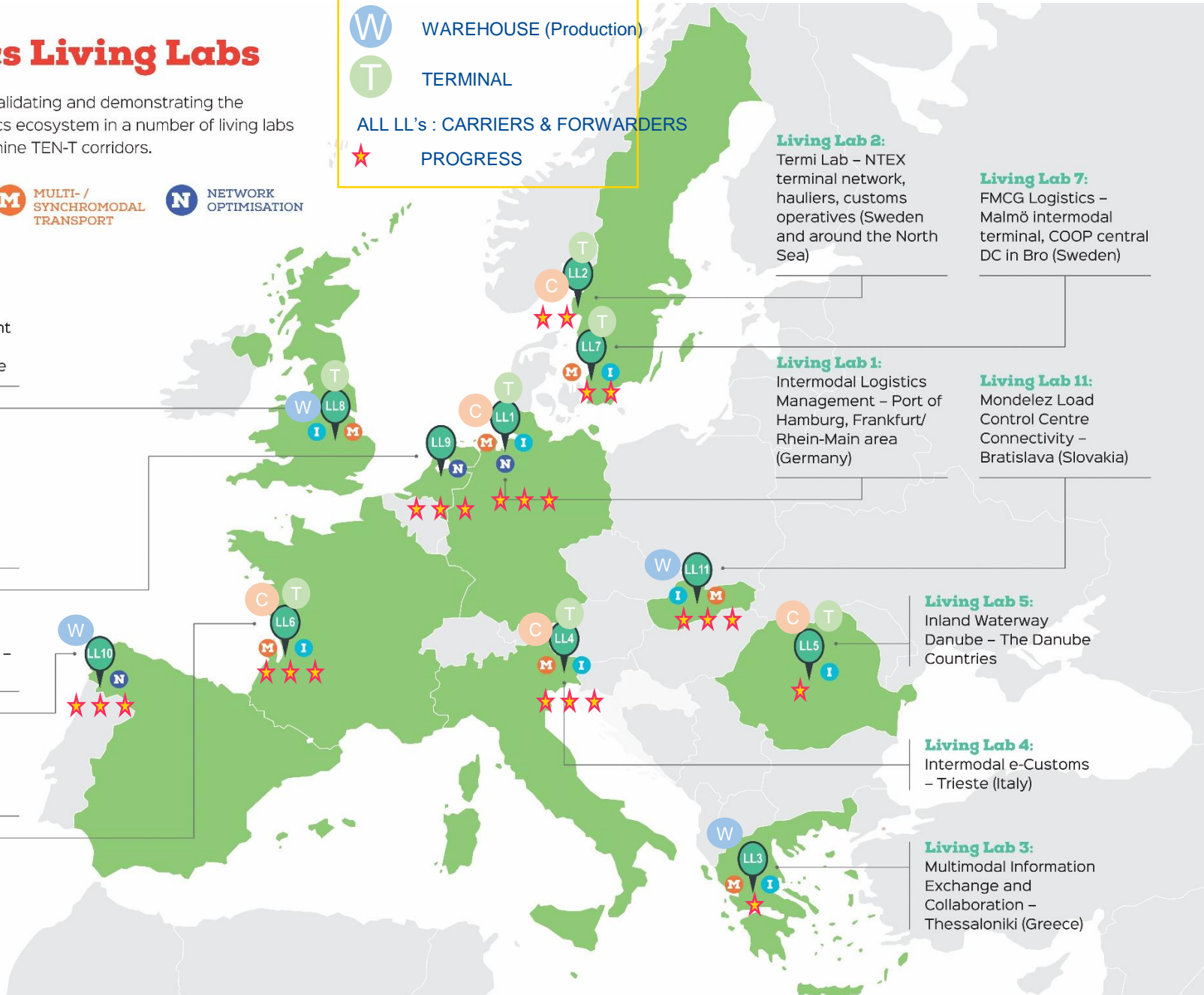
**Living Lab 1:**  
Intermodal Logistics Management - Port of Hamburg, Frankfurt/Rhein-Main area (Germany)

**Living Lab 11:**  
Mondelez Load Control Centre Connectivity - Bratislava (Slovakia)

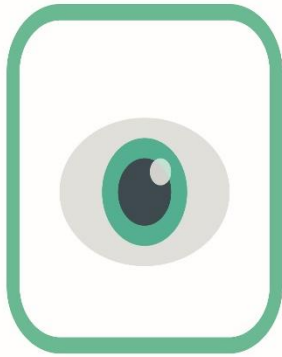
**Living Lab 5:**  
Inland Waterway Danube - The Danube Countries

**Living Lab 4:**  
Intermodal e-Customs - Trieste (Italy)

**Living Lab 3:**  
Multimodal Information Exchange and Collaboration - Thessaloniki (Greece)



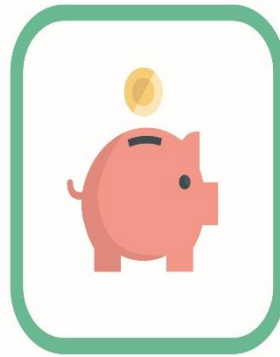
# AEOLIX Benefits



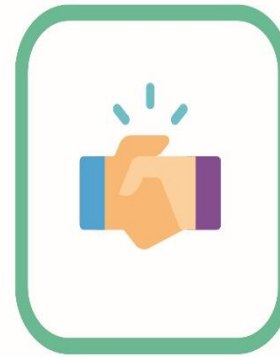
Enhanced  
supply chain  
visibility



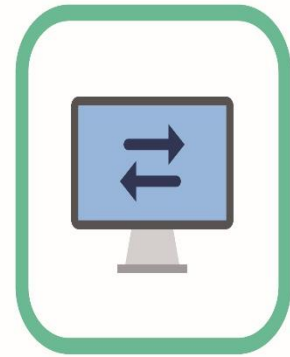
More efficiency  
and better  
resilience



Fewer costs  
less administrative  
burden



New  
business  
opportunities



Automation  
of  
data flow



Optimised choice  
of transport  
services



Better transport  
and event  
management



Increased  
load  
factors



Fewer  
CO<sub>2</sub>  
emissions



Interoperability  
in line with  
EU standards



# AEOLIX partnership

Atos

austriatech

CEAGA   
Galician Automotive Cluster

 Cerema

  
ERTICO  
ITS EUROPE

  
Geoloc Systems  
Geographic Information Systems

Giventis  
International

FRANKFURT  
**HOLM**  
HOUSE OF LOGISTICS AND MOBILITY

**BIGL**  
Bundesrat Ceteris in Lehr  
Logistik und Enterprise (BGL) o.ä.

**Mondelēz**  
International

 THE UNIVERSITY OF  
NORTHAMPTON

  
NOVACOM  
SERVICES

SMART  
FREIGHT  
CENTRE 

TEAMNET transforming  
technology

  
THEOLOGICAL CHAMBER  
OF COMMERCE AND INDUSTRY

•• T •• Systems

 CERTH  
CENTRE FOR RESEARCH & TECHNOLOGY HELLAS

 CTAG

CHALMERS

 Connekt  
ITS Netherlands

  
ICOOR

**INT**  
Interporto di Trieste  
Friuli Venezia Giulia

**IU**  
PROJECTS

**ist** 

**NTEx**

**HPA**  
Hamburg Port Authority

PTV GROUP  
the mind of movement

 SamerCo shipping

  
TXLOGISTIK

  
Unilever

viadonau

  
JAN DE RIJK  
LOGISTICS

**coop**

 SEVE  
CENTRE INTERNATIONAL  
ECONOMIQUE

  
ERTICO  
ITS EUROPE

# AEOLIX“Trusted data network”

## Data push model

- Model enables real time information to interested parties ensuring automated logistics processes in the logistics stakeholders apps / systems

## Open

- Data is not stored in any central database but is produced and maintained in original data format by its owner
- Each owner of the data pipeline decides who can participate and how (producing data, reading...)

## Data from legacy systems

- Data easy to use and consume for legacy systems exposing AEOLIX core services as API / Rest services

## Data Privacy assurance, authentication and security mechanisms

- Data Privacy assurance, authentication and security mechanisms

## Data architecture

- Built upon existing recognised industry and European standards and has proven reference data implementations
- Visible and recognised as a trust Label within industry and public authorities.
- Validated through compliance testing and certification

# AEOLIX testfest events



# AEOLIX high level events 2018

