



PROTO-PI

PROTOTYPING A REGIONAL PHYSICAL INTERNET

Graz, 4th of July 2017

powered by..



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SATIAMO[®]
SAVES TIME AND MONEY

A. INTRODUCTION

ProtoPI: The Digital Business Platform

B.

Connecting to the PI

C.

Enabling Consolidation

D.

Measuring Performance

E. OUTLOOK

..what we are working on..



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PROJECT GOALS

1. Design a regional PI Model
2. Develop a Prototype
3. Establish a Business Model



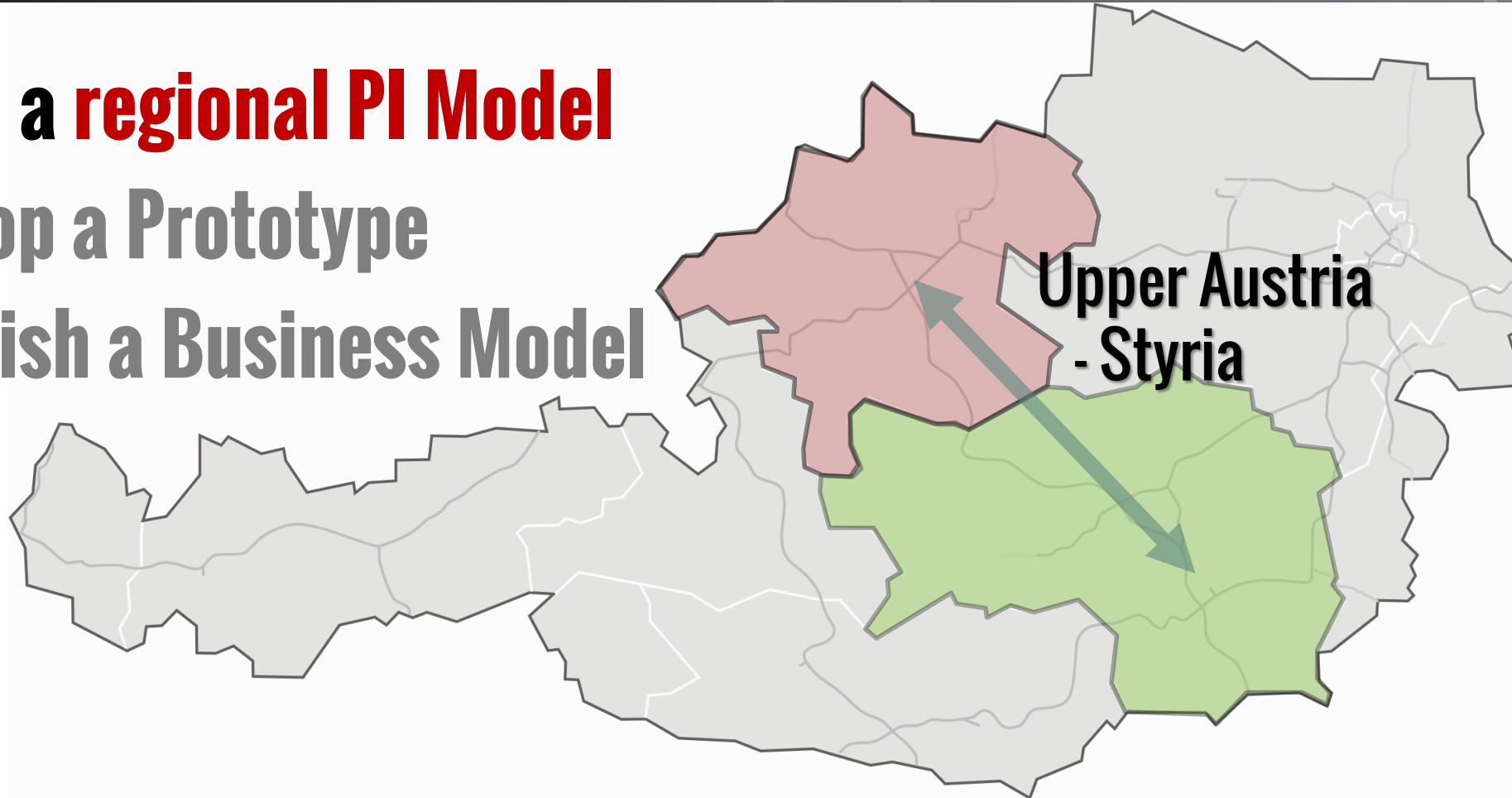
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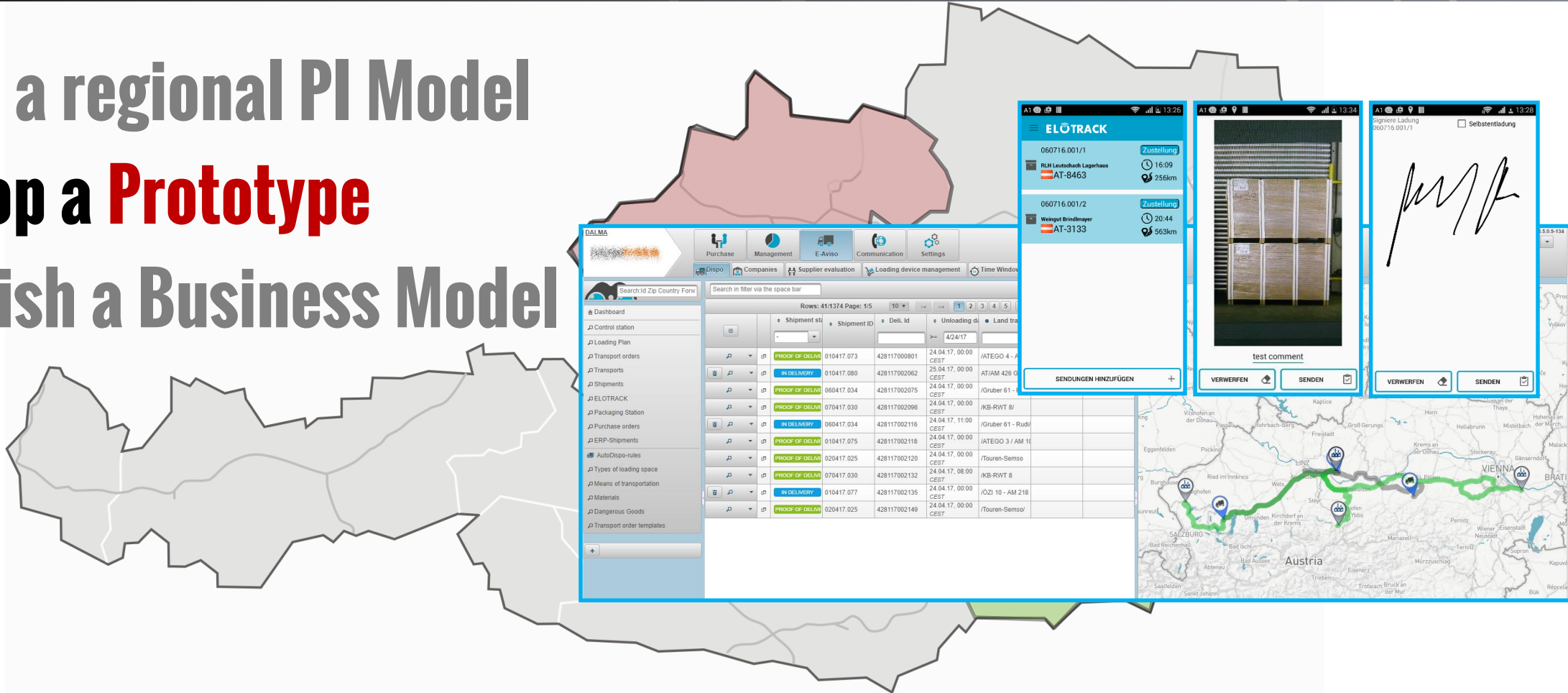


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π -HUB

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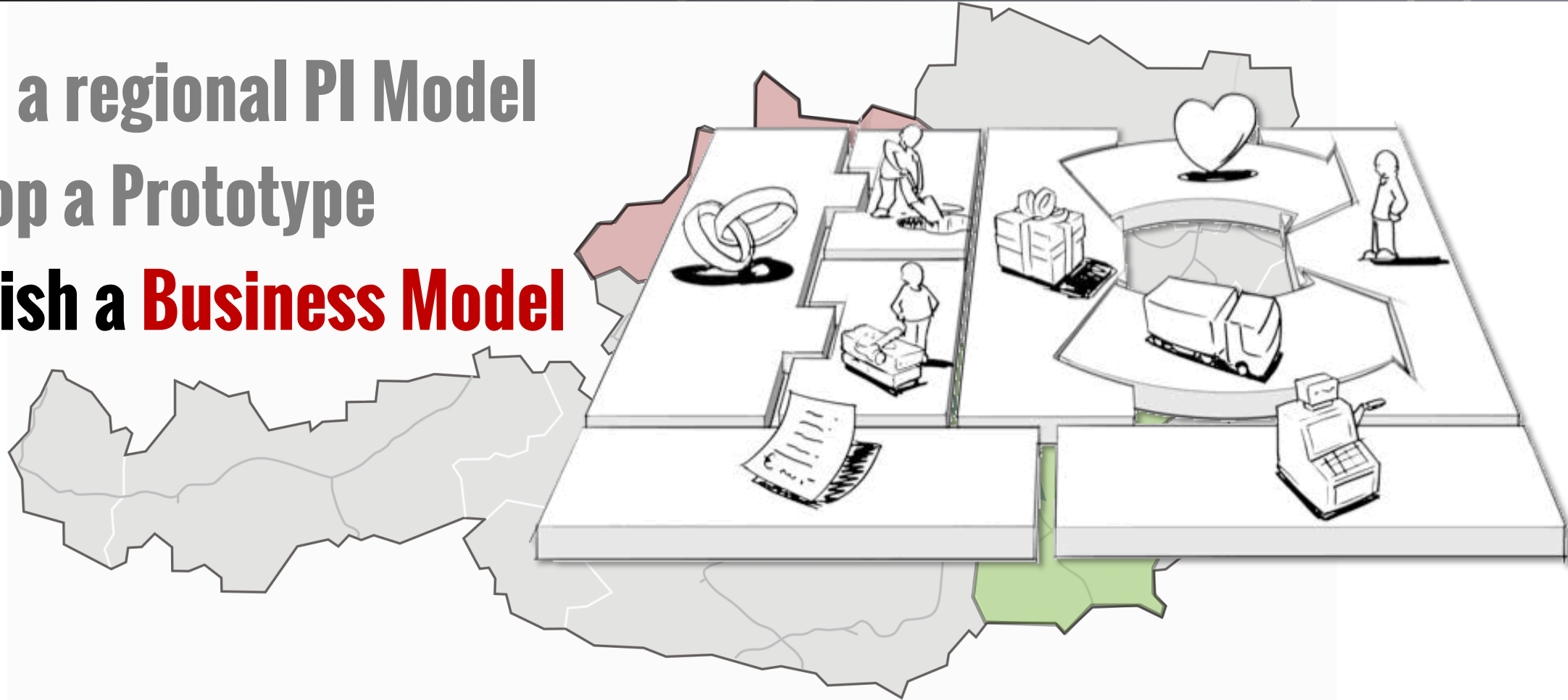
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TYPICAL STARTING POINT



Lead Logistics Provider



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A MORE DESIRED SOLUTION...



..make the best decision available
..based on current LSP rates
..automatically
..depending on shipment size
(and some other parameters)

Automated Dispatching



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THIS IS WHY WE NEED A..



PHYSICAL INTERNET GATEWAY (PIG)



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THE PHYSICAL INTERNET GATEWAY **GATEWAY**



PHYSICAL INTERNET GATEWAY (PIG)



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..AS A WEB-BASED TRANSPORT MANAGEMENT PLATFORM

Create new shipment

Shpmnt.Id Deli. Id EKAER Number Unload at Phone

Load at *
Search for loading point
1202
 Time window

Unload at *
Search for unloading point..
1701
 Time window

Group number
Cost center
QM-order
PSP
G/L account

Loading date
CEST
25.04.17 07:00
Until
Loading Duration
0 Min.

Unloading date
CEST
From
26.04.17 15:00
Duration Unloading
0 Min.

Self-collector / Own Truck Outbound shipment

Incoterm
--Please select--

Dangerous Goods
--Please select--

Loading space
EU 33.00 20,000.00

Description of the shipment
512 characters left

Specific comment
512 characters left

Internal comment
1024 characters left

Text in the CMR for attache..
Lieferscheine

Pallets

Load Carrier Type	kg	Outgoing	HU	
EPAL (601)	25.0	- 1 +	<input type="checkbox"/>	<input type="button" value="v"/>
--Please s		0	<input checked="" type="checkbox"/>	<input type="button" value="+"/>

Purchase Order

Offers (for chosen shipment)

Optionen

Cooled Return of goods Import customs clearance
 Export customs clearance Roundtrip Until 08:00 am
 Until 10:00 am Fixed Date Preannouncement
 Pal-Retour Self-unloading LTL Self-unloading FTL
 ALL-In fee

Tender offers

Total price	Logistics service provider	Unloader	Valid until	Runtime
778.39 EUR (37.61)	Trezzano	35.00	Dec 31, 2018	
816.00 EUR (72.65)	Trezzano	45.00	Dec 31, 2018	
851.04 EUR (182.45)	Trezzano	0.00	Dec 31, 2017	
960.84 EUR	Trezzano	50.00	Dec 31, 2018	

Smart-Dispo settings Default Time: 30 Min.

Alternative offer

Logistics service provider
--Please select--

Transport order options

Obligation to accept



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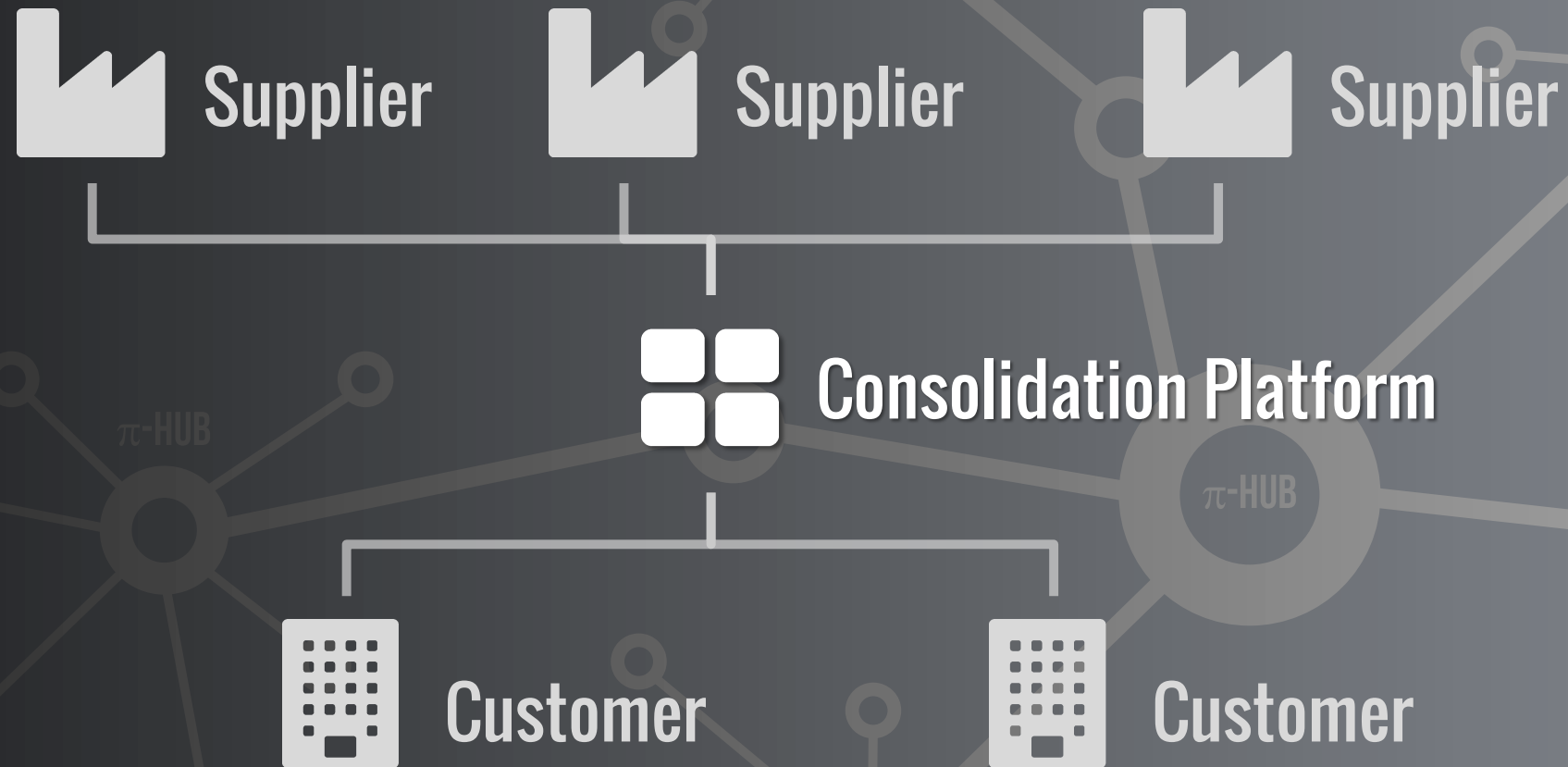


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A MORE COMPLEX SUPPLY CHAIN..



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FROM "PI" POINT OF VIEW...



 **Transportation Partner A**

 **Handling Partner B**

 **Transportation Partner C**



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HERE ARE THE **BENEFITS:**

- More flexible design of consolidation points in the supply chain
- Consolidated flows
 - from supplier to consolidation platform
 - from consolidation platform to customer
- Resulting in possible cost savings

and..
different LSP/TSP **can be integrated into the supply chain.**



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DEVELOPING A **DIGITAL BUSINESS PLATFORM**

LEVEL 1: OPERATOR
Transport Provider



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DEVELOPING A **DIGITAL BUSINESS PLATFORM**

LEVEL 2: ORGANIZER

Freight Forwarder | Lead Logistics Provider

LEVEL 1: OPERATOR

Transport Provider



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DEVELOPING A DIGITAL BUSINESS PLATFORM

LEVEL 3: COMPANY

Enterprise-wide Supply Chain

LEVEL 2: ORGANIZER

Freight Forwarder | Lead Logistics Provider

LEVEL 1: OPERATOR

Transport Provider



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DEVELOPING A DIGITAL BUSINESS PLATFORM

LEVEL 4: INTERCOMPANY

A Multitude of Enterprise-wide Supply Chains

LEVEL 3: COMPANY

Enterprise-wide Supply Chain

LEVEL 2: ORGANIZER

Freight Forwarder | Lead Logistics Provider

LEVEL 1: OPERATOR

Transport Provider



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Freight Forwarder | Lead Logistics Provider

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PERFORMANCE MEASUREMENT

Do our LSPs perform well?

QUALITY ASSURANCE

Are our LSPs doing all right?

STRATEGIC PLANNING

Do we have the right LSP?



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OUTLOOK: WHAT WE ARE WORKING ON

1. Optimizing **via pricing & capacity sharing**:
“intelligent pricing” by the platform
2. “Profiling” possible **PI-subnets**:
developing branch-oriented solution approaches
3. Integration of **RTIs** (returnable transportation items)
as a form of PI-Containers
4. Assessing the “Value of Information”:
Developing a specific **Business Model** for a possible 4PL



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THANK YOU FOR YOUR ATTENTION!



Borusan Logistics

eTA

Gözde Aydın
goaydin@borusan.com



Agenda

- Borusan Group
- Borusan Logistics
- eTA
 - How eTA works ?
 - Value proposition
 - Why eTA ?
 - eTA in numbers



BORUSAN

HOLDING

1944

Operations in
3 continents
12 countries

USD **4.4 billion**
consolidated
revenues

16 companies

4 industries
6 business lines

30 ideas and
6 business incubation
companies

USD **30 million**
innovation
investments

70+ years industry
and service
experience

USD **329 million**
operational profit

Group Companies

Steel

 **BORÇELİK**

 **BORUSAN
MANNESMANN**


ArcelorMittal


**SALZGITTER
MANNESMANN
INTERNATIONAL**
A Member of the Salzgitter Group

Energy

BORUSAN — **EnBW**
Enerji Ortaklığı

Distributorship Group


Motor Parçaları

EAT•N





Borusan Otomotiv



**BENİM
FILOM**
İşinize gelir



Logistics






ETAŞIMACILIK.COM

Borusan Logistics

Borusan Logistics was founded in 1973, as an integrated logistic service provider. Our firm provides services in four main strategic fields.

Also eTA and Bukoli brands are Borusan Logistics's innovative startups.

1

Domestics
Logistics Services

2

Port Services and
Chartering Project
Transportation

3

Logistics Services
Abroad

4

International
Transportation
Services



Meet with eTA

In May 2013, Borusan Logistics made a disruption by launching eTA in logistics sector, an innovative project that digitalizes truck freight transportation processes.



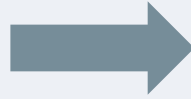
eTA as a digital market platform, uses the mobile application for finding the best truckers and customers(SME's).



How eTA works?



Customer enters the eTA web page.



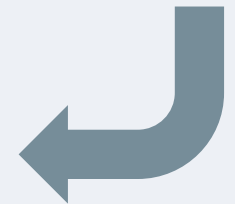
- Customer creates an order.
- The system creates a price, if the price is affordable; customer buys the freight transportation service.



The freight is carried with excellent service of eTA.



The appropriate truckers see the auction and one of them assigned to the job.



How eTA works for SME's?



Sign-up

Sign-up from eTA web page easily



Request

Fill "new request form" and create new order



Purchase

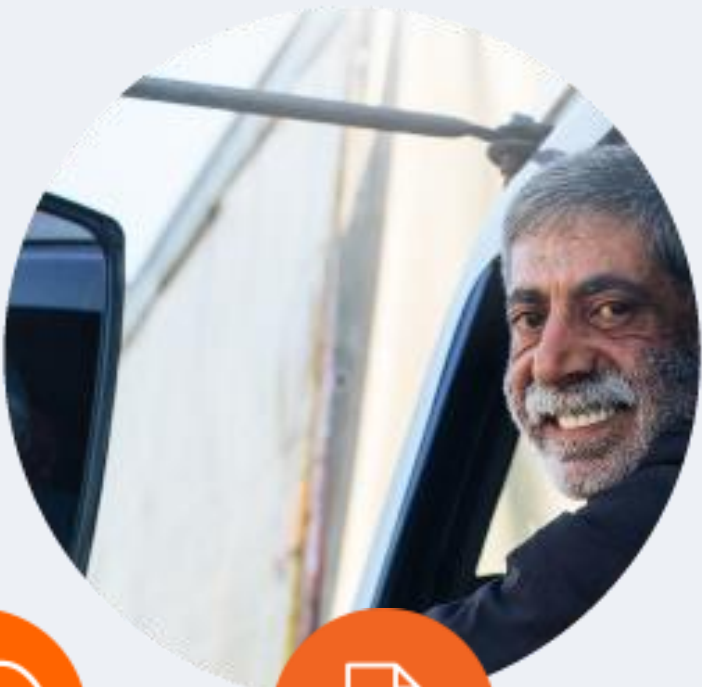
- System sends freight offer
- If the offer is eligible, they can purchase the service
- They can pay with different payment options



Reporting

- Tracking shipments
- Analyzing their invoices, requests and orders

How eTA works for truckers?



Sign-up

Subscribe free and fast by filling sign-up form on eTA mobile application



Job

- System informs truckers about the appropriate available jobs.
- From the application, they can follow the most recent announcements.



Payment

Their payment automatically sent to their bank accounts.



Reporting

- Payment report
- Shipment list

Value proposition: Best Price

- FREE MEMBERSHIP
- DETECT VEHICLE AND ROUTE HOURS
- BENEFIT THE BEST PRICE
- LET YOUR FREIGHT BE TRANSPORTED

The ultimate freight shipment; **best price** is just one click away.

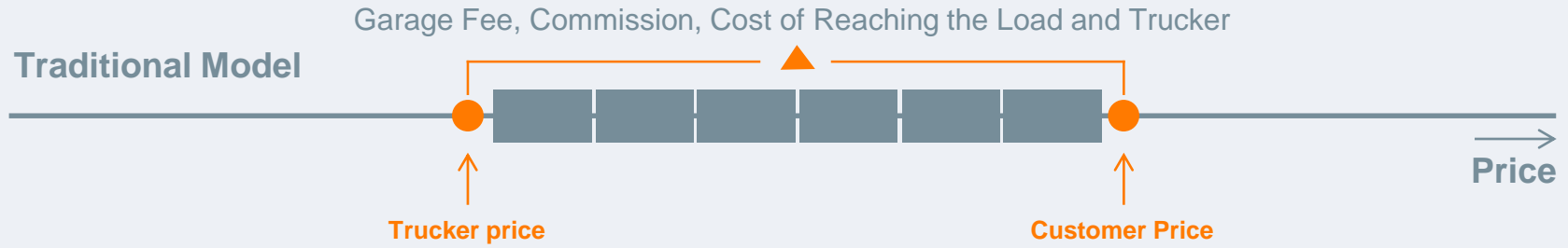


BORUSAN
KURULUŞUDUR



ETA
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Traditional Model

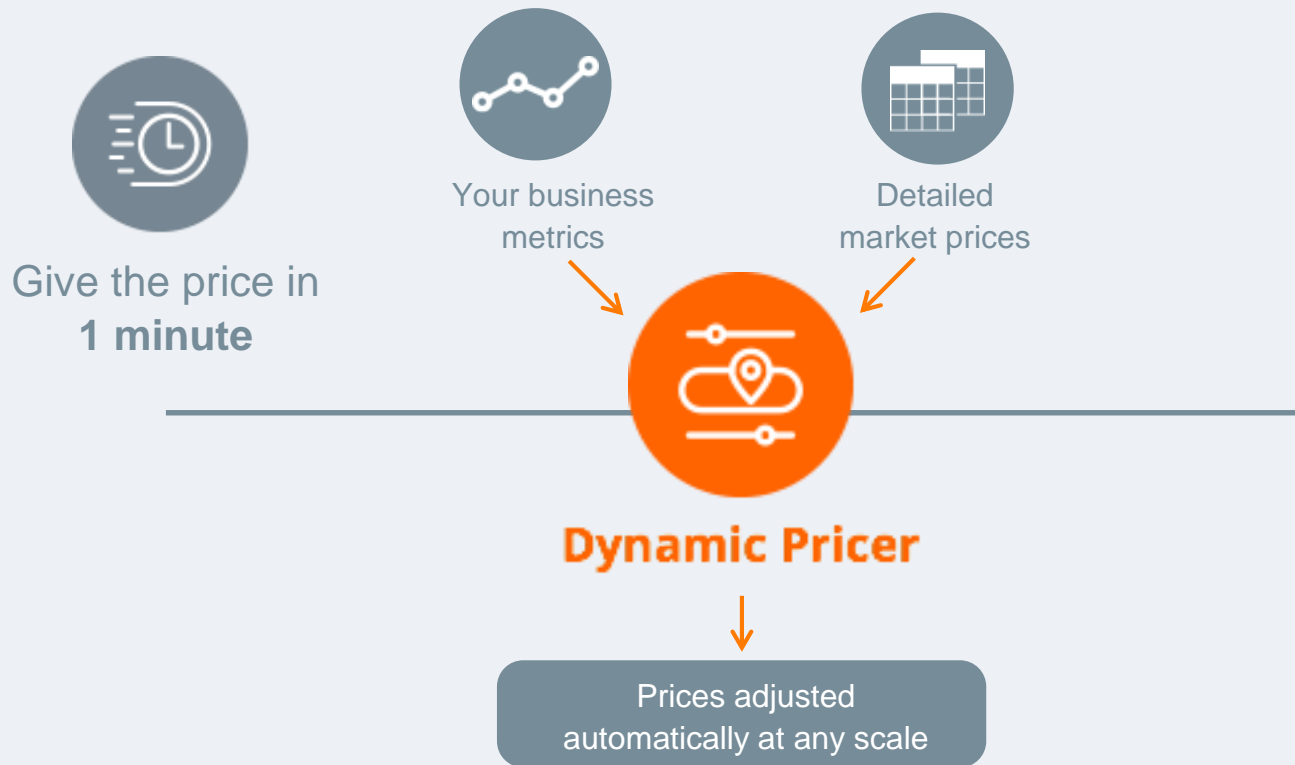


- Economy of Scale
- Lean process flow in e-commerce platform

eTA Model










Dynamic price optimization










Through dynamic pricing engine creates optimum prices which puts gas prices, kilometers, market conditions, seasonal differences exchange rate forecasting and market conditions. Thus, eTA users get the **best price** in **much faster** than traditional tools.

Why eTA?

Freight Owner's Advantages

-  Best price
-  Free membership, no commission
-  Borusan assurance
-  Insured transportation
-  Fast Pricing / Easy Processing
-  Payment benefits
-  7/24 support /online tracking

Truckers Advantages

-  Best price
-  Free membership, no commission
-  Borusan assurance
-  Payment Assurance
-  Regular, effortless job opportunities
-  Easy to find return load
-  Reduced Empty Circulation

eTA in numbers

Project
Started in
2012

Started to
serve in
2013

Every year in
the last 3
years 2 times
grown up

**8,5 million
USD**
sales volume
reached in
2016



Target of 2017

70.000

shipments

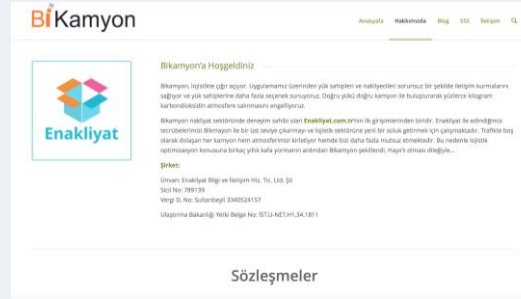
23
million \$

sales volume



Competitors

Digital Competitors



Classic Competitors

Truckers Site

Brokers

Similar Business in the world



-
- Online platform for freight-trucker platform in the USA
 - 500.000 truckers
 - Delivers vital and updated information while on the road such as truck stops, available parking, fuel prices or a weigh station status



-
- Product based carrier-freight owner matching platform
 - 3.5M shipping customers, 788.000 service providers, 5.7M shipment listings

Thanks for your
attention.





4th International Physical Internet Conference Workshop: Digital Platforms Enabling Hyper connected Logistics

“SELIS Digital Platform for Next Generation Logistics Applications “

Inlecom Systems LTD

LogistikWerkstatt Graz

INLECOM

- Founded in 1996, INLECOM is an SME headquartered in Brussels, with 9 core competencies :
 - Project Management, Governance, OPEX
 - Solution Design, Prototyping & POCs
 - Security & Compliance
 - Public, Private & Hybrid Cloud
 - IoT, Analytics & Big Data
 - Intellectual Property Management and EPO/USPTO Patent Filings
 - Business Transformation
 - Knowledge Management & Knowledge Graphs
 - Basic and Applied Research, with interests in H2020, EU Tenders, Interreg, National Funding
- Inlecom have led and partnered in many EU projects and commercial ventures over 20 years. We are the coordinating entity in the EU SELIS project.

Economic Landscape that Motivated SELIS

- The success and growth of the logistics sector is both strategic and important to Europe
- This is evidenced by the European Commission's allocation of 8.2% of the H2020's €77B R&D budget to Transport (i.e. €6.3B)
- Logistics is one of the more competitive sectors in Europe, where more shippers and retailers are establishing logistics operations of their own each year
- New players are also entering the market - some of these are taking a very narrow focus on lucrative parts of the value chain, and optimising in this context
- Globalisation coupled with the growth in population and changes in consumer behaviour is driving demand for products from all over the world, hence increased competition
- Customer expectations are also moving towards seeing goods delivered more speedily, with increased flexibility, and at either low or zero delivery charges
- In 2017, the reality is that several logistics players are now working to 3% margins

Technology Landscape that Motivated SELIS

- The growth of e-commerce has incited digitalisation in the T&L sector
- Over the past decade advances in technology have been adopted across the T&L value chain as a whole
- In this time, the Logistics sector has invested significantly in ICT solutions, EDI technologies, intermodal repositories, data mining & analytics capabilities, and more
- New entrants to the sector are exploiting digital technologies to drive greater efficiencies, new collaborative business models
- These new entrants are re-defining the sector in new ways that are now starting to emerge, fuelling increased competition, and more agile-based approaches
- The speed of technological evolution has resulted in bespoke information systems, multiple EDI formats, different business models, incompatible systems, lack of standards – right across Europe
- The Commission's strategic view is that the broader European Logistics Sector will benefit from common standards, common data & information models, as well as information sharing :

*The creation of an architecture for logistics information sharing and valorisation will speed up the formation of a single logistics information space in Europe, that is accessible for the transport sector, its users and, in addition, public authorities –
EU Commission, 2015*

SELIS (*Shared European Logistics Intelligent Information Space*)

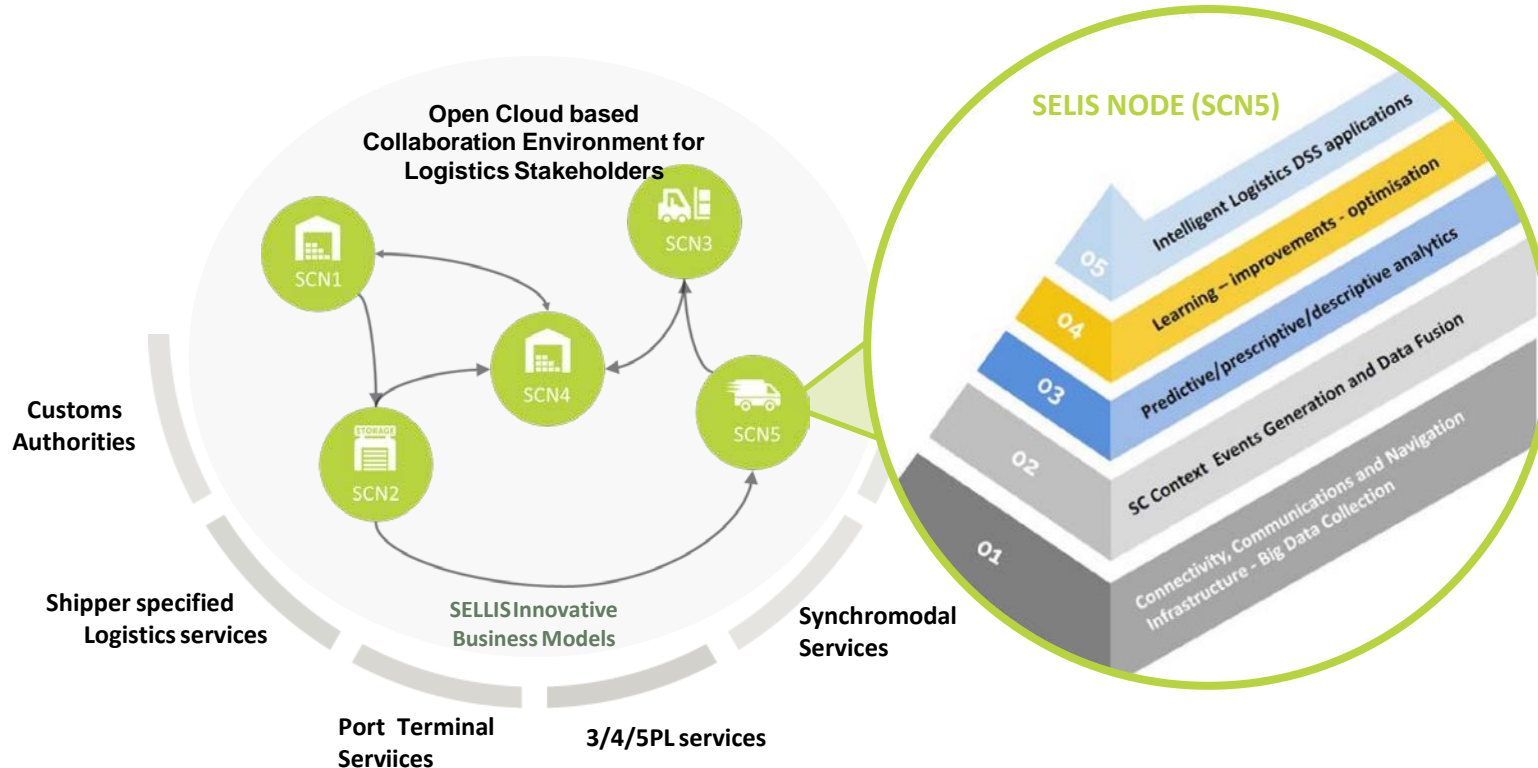
- SELIS is an €18m R&D partnership comprising 37 partner (T&L, ICT, SME, University, Domain Experts)
- SELIS responds to EU's T&L sector with a technology solution, platform and framework that places the sector's economic and technological challenges centre stage in framing SELIS's remit
- From an early stage, SELIS acknowledged the impracticality in changing already adopted EDI systems, bespoke solutions/systems for actors in the sector – these were significant investments
- SELIS also acknowledged the fragmented nature of ICT solutions and technologies within and between actors across the end to end supply chain, making collaboration difficult if not impossible
- This broader economic & technological context led to SELIS's vision :

SELIS (*Shared European Logistics Intelligent Information Space*)

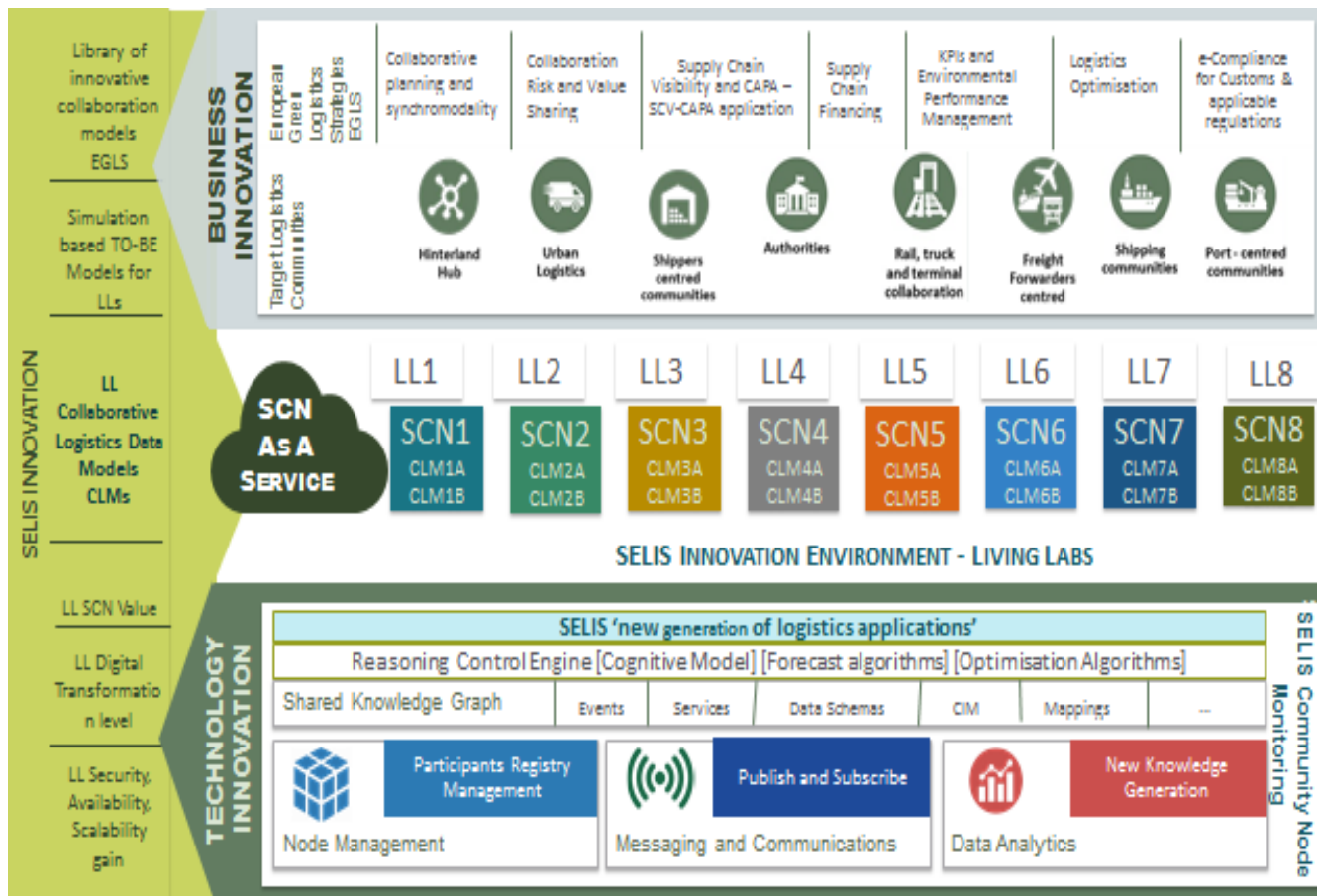
The SELIS vision is for every logistics provider and every supply chain in Europe to have access to an information sharing space using cloud technology. This would eliminate problems that individuals and companies have of exchanging information and finding the optimum way of transporting things.'

Dr Panayiotis Katsoulakos, 2015

- The SELIS ‘digital platform’ will serve as the infrastructure to deliver the ‘next generation of pan-European logistics applications’, applying the principles of open standards and open practices
- The SELIS digital platform constitutes an ‘out of the box’ technology enabling logistics stakeholders to exploit collaborative “Spaces” referred to as SELIS Community Nodes (SCNs).
- This B2B and B2A services platform has the stated goal of low barriers and costs for setting up and running enterprise B2B, C2B, B2C business collaboration scenarios and services



SELIS will be proven in 8 LLs implicitly addressing principal logistics community patterns representative of EU T&L Sector



KEY Benefits of SELIS Platform

SELIS fully distributed, open and decentralized platform will offer whole integrated enterprise services for collaboration, communications, and data management as virtualized solutions

with

Significant business benefits to be realized for the parties involved, both on operational and strategic level

- ✓ ***improved efficiency, asset utilization and responsiveness of supply chains***
- ✓ ***decreased costs***
- ✓ ***increased end-to-end visibility.***

KEY Benefits of SELIS Platform

In more granularity....

<i>Potential impact on logistics stakeholder groups</i>		Estimated current Market share	Market reach	Market Reach potential	Revenue ↑	Cost reduction	Service Quality
Stakeholder Group Partners							
Medium and Large FFs	DHL, Zanardo Logistica	50	5	30	>5%	>3%	>10%
Rail / inland terminal operators	Adria-Combi	15	2	10	>5%	>3%	>20%
Ship integrated logistics	A.P. Moller - Maersk A/S (APM Terminals & Maersk line); DFDS.	20	5	15	>5%	>5%	>20%
Urban Logistics / SMEs	SUMY, BubblePost, Wayz	15	0	10	>7%	>7%	>20%
Shippers	ISPC International, Ocean Maree, SON					>3%	>20%
Totals		100	12	65			

SELIS deployment will result in cost reduction > 3% for Medium and Large FFs, Rail / inland terminal operators and Shippers a cost reduction >5%-7% for Ship Integrated Logistics and Urban Logistics /SME's and an overall 30% reduction of energy consumption and greenhouse gas emissions.

SELIS's Commercial Proposition

- › SELIS will file minimum 4 EPO and USPTO Patents, end going to protect the innovation in Europe
 - › Inlecom Team have many years of experience in successful EU, US and APAC filings, and we have an IPR department that reports in to our Brussels office that assists clients (particularly SMEs) across Europe in protecting their innovation
 - › Inlecom also have a pan European and USA network of attorneys who assist on the legal side of the patent filing work, with domain expertise in the relevant technology disciplines
- › SELIS will also deliver a business plan, market analyses and feasibility study - end goal is to spin out a new EU SME to deploy, manage, scale and administer the SELIS platform for all of Europe, as well as provide specialist assistance in building business applications for SELIS businesses and clients
- › Further in to the project the SELIS team intend to meet with prospective Ventures Capitalists and Investors, as we see the platform responding to a broad range of digital collaborative eco-systems both in and outside of Logistics

In Conclusion

The SELIS platform will effectively lower the barriers and costs of setting up and running business collaboration scenarios and services by supporting the easy adoption of digital innovations via focused change management and capacity building actions.

In essence, it will offer a fast and efficient way for logistics companies to increase their digital maturity level, thus enabling their participation in a future European Collaborative and Agile, Green Logistics and Transportation system.

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