Go2PI
Practically proved steps to implement the Physical Internet
Proposed PI-standard process

proposed standard process for B2B in a future PI
The Austrian project Go2PI

• Case study:
  • Austrian automotive company
  • criteria and guidelines regarding aspects of technical and information systems as well as processes
  • identify implementation criteria for a neutral and open PI-based business model

• roadmap to successful PI services:
  • use of future PI – loading and transport devices
  • PI-ICT
Go2PI – partners and approach

Operational aims

- Sharing of resources and infrastructure across different industries
- Optimization of used volume by pooling modular and intelligent containers
- Optimization through adaptive prioritization and continuous use of ICT

Scope of the Go2PI project
Use case scenarios

- 28 different scenarios
- Deriving requirements on 4 different levels
  - Physical level
  - Process level
  - Information level
  - Business model level
- Monitor gaps to today's situation
- Monitor potential and short term possibilities
Identified steps to implement PI ideas

1. Education and Conviction
   → The vision for „coopetition“ has to be spread

2. Standardization of logistics operation
   → flow of data & consignments

3. Standardization of financial clearing
   → fair business models
Spreading the vision for „coopetition“

- **“Cooperation” with Competitors** is seen very critical
  - Protection of customers is main topic

- **Sharing of monetary benefits** via a set of fair rules and regulations
  - Operational savings must be visible

- **Addressing the Legal questions**
  - Clear responsibilities and liabilities are requested
  - (e.g. who is contract partner, where have claims to be cleared?)
Standardization is necessary to identify, analyze and consolidate freight from different service providers.

- Standardization of ICT – first steps
  - pallet (probably plastic) with QR-Code
  - mobile devices for identification
  - IT-integration of PI-partners
    - design and operation of SW interfaces

- Automated information feeding for shipments and free transport capacities to a PI – hyper system
Elements of the focused PI-solution

The PI - hyper system coordinates:

- Transport orders (on unit level)
- Resources of service providers (used and free capacities of hubs and trucks)
- Financial clearing of service providers
Standardization of financial clearing models

- **Benefit sharing model** for profits resulted from consolidation

- **Flexible pricing models** according to demand and capacities and actual reoccurring costs
  - No long contracts with fixed prices
  - Motivation for senders to adjust shipping dates to a day where there is spare capacity
  - Is the market willing to accept uncertainty for gaining possible benefits?
The focus on SME:

• Long-lasting customer/supplier relationships
  • direct contact persons, trust

• Possible problems in virtualizing this supplier relationship
  • probably regional service provider fixed for first mile or last mile and consolidation within the open network for main runs

• Lack of preliminary time for organizing consolidation
  • lack of information about what is going to be sent
  • lack of consistent data
Future research questions

• **The PI – hyper system**
  (or PI Management Systems)

  = platform to plan, consolidate and controls single unit loads of all partners cross-business-wide
  • integrating existing ERP or transport management systems

? Who organizes and creates this integrative platform
? Who is allowed to use the data within the PI?

• **Qualification Process** for PI Service Providers
Further information

Published work:
Ehrentraut F., Landschützer C., Jodin D., Graf H.C., Gasperlmair A. (2016 – in print): A case study derived methodology to create a roadmap to realize the Physical Internet for SME, In: 3rd International Physical Internet Conference, Atlanta

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ATROPINE: Fast Track to the Physical Internet

3rd Physical Internet Conference 2016
June 29 – July 1, Atlanta, GA, USA

Prof. Dr. Horst Treiblmaier
• „ATROPINE“ (2016-2017) supported by INNOVATIVE UPPER AUSTRIA 2020

• **Aim:** Establishing a PI model region in Upper Austria

• **Goal:** Triggering the innovation chain along industry, education and research by bringing key elements of the Physical Internet to life in real business environments.
ATROPINE: Research Partners
ATROPINE: Company Partners
Information | Synchromodality
---|---
Container | Infrastructure

PI Business Models
Awareness

Service Design & Engineering
Human-Machine-Interface
ATROPINE

Real Time Information

Intelligent Containers

Shared Infrastructure

Synchromodality

Last Mile

ATROPINE

Fast Track to the Physical Internet
State of the Art / Best Practices

More than 200 examples for the 13 characteristics of the PI (Montreuil, 2011)

Source: http://www.adamsofineti.com/photography/people/

FLEXE connects you to warehouse capacity when, where, and how you need it.
Stakeholder Dialog Workshop 1

- 40 Participants from ~ 25 companies
- Open discussion
  - Transcripts
  - Content analysis
- Five major discussion topics
  - PI transport
  - PI inventory network
  - PI contract
  - PI transport units and information exchange
  - PI inbound / outbound
Stakeholder Dialog Workshop 2

- 7 July 2016
  - Peer groups with specific tasks
  - Research questions for partners
  - Four tasks groups

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Taking Logistics To The Next Level

Manisha Raisinghani
Co-founder and CTO
LOGINEXT: SOME KEY FACTS

- Big Data Expertise
- Ventre Funded
- Act 2013 Compliant
- Top 10 B2B Start-ups in India
- 100% MoM Growth Revenues
- 75 Clients World Wide
- Valued at 100M+ USD
- 100 People lean team
## SOME OF OUR HAPPY CLIENTELE

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LINEHAUL TRANSPORT

Our matchbox sized trackers carried with your shipment bags, manifests or vehicles and locate them as they change hands across surface, rail and air transport.

**KEY FEATURES**

- Real-time Tracking for Surface, Rail and Air
- Co-loader Performance and SLA Measurement
- Automated Alerts When Shipments Pass by Airports/Stations

**ANALYTICS**

- Delay Density Bubble Maps and Charts
- Zone-wise Reports and Control Room Set-ups
- Delay Heat Maps for Every Delivery Routes and Areas

Bag Off-loading Alerts.
Automated Geo-fencing.
Heat Maps Analysis.
SLA and ETA Trends Analysis.
LAST MILE DELIVERIES

30% of the logistics cost is spent on last mile deliveries. We help you reduce this cost with our smart mobile apps and cloud based planning and optimization engine.

KEY FEATURES

- Real-time Communication With Delivery Boys
- Electronic Proof of Delivery as Signature, Scans & Images
- Real-time Analysis of Missed, Pending, Delivered Orders
- Delivery Location Clustering Based On Dynamic Capacity
- Delivery Planning With Preferred Time Window Per Order
- Predictive Delay Alerts And Real-time ETAs Updates

ANALYTICS

- Delivery Location Clustering Based On Dynamic Capacity
- Delivery Planning With Preferred Time Window Per Order
- Predictive Delay Alerts And Real-time ETAs Updates

With the surge in on-demand and hyper-local economy, an even bigger need for technology has emerged. If you are running a food, grocery, taxi, medicine, laundry or any express delivery service, (A.K.A. "Uber for X") then we have something interesting for you.

**point-to-point logistics**

- Location based resource allocation
- Electronic Proof of Delivery as Signature, Scans & Images
- Real-time Analysis of Missed, Pending, Delivered Orders

**key features**

- Delivery Location Clustering Based On Dynamic Capacity
- Delivery Planning With Preferred Time Window Per Order
- Predictive Delay Alerts And Real-time ETAs Updates

**analytics**

- Automated Scheduling.
- Route Optimization.
- Real-Time Notifications.
- On Time Deliveries.

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With change in focus on product lifecycle management, companies are designing products with end-of-life processes in mind. They're also rethinking the processes associated with returning and disposing of goods.

**REVERSE LOGISTICS**

**KEY FEATURES**
- Real-time Tracking and Notifications to Merchant
- Electronic Proof of partial / non-Delivery as Signature, Scans & Images
- Automated Rescheduling of Undelivered Items

**ANALYTICS**
- Customer Satisfaction Root Cause Analysis
- Categorization of Customer Locations & Behavior
- Projection on Cost Savings

Real-Time Visibility.
Intermediate Scheduling.
Load Balancing.
Reduced Cost.
AWARDS AND PARTNERSHIPS

zippr
Location Partners

Aegis Graham Bell Awards

aws activate
Cloud Host Partners

CIO choice Awards 2015 & 2016

B2B top 30 startups - 2014

IBM

GenNext INNOVATION Hub Powered by Microsoft Ventures
Acceleration Partner

NASCOMM Top 30 startups - 2015

Paytm
Investment Partner

Traffic information Partner

Smartphone Partners

Cloud Tools Partners

Microsoft BizSpark
Startup

Indian Angel Network
Investment Partner

Top 30 Tech startups - 2014

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