



Turning Waste in freight logistics into Intelligent Assets.

Recognized as

Highly Innovative Startup



Innovation Pioneers in Logistics



Cleantech Startup



Certified as



Achievements

- Client portfolio: The solution represent market potential of > CHF 200m p.a. (spend in packaging)
- > CHF 1.5m in implementation contracts and LOIs 2022, > CHF 3m for 2023
- Ponera modular packaging has successfully transported loads of > 15 tons, and certain modules used >50 times using different transport modes
- Client analytics completed so far with paying customers:
 - average payback in less than 4 usages
 - offered costs savings for 90% of all deliveries, average payback cycle in < 2y, and 35% of cases with payback < 1year
- CO₂ emissions payback in < 1y average
- Re-sellers increase Gross Margins up to 3x
- Strong traction: 6 corporate and re-seller clients completed pilot phase, average cost >CHF 20k, >85% conversion rate
- Average implementation >CHF 100k investment in year 1. 6 additional pilots agreed, and 10 forecasted in 2022
- Industrial Supply Chain successfully implemented with multinational partners; can be rapidly scaled with very high product quality
- Raised > CHF 1.4m so far, with CHF 2.5m comitted for next round
- 5 International Utility Patent Applications, > 40 patent national entries and trademark registration
- Diligent and efficient use of resources; runway of > 6 months always guarenteed

Prizes and recognitions

Highly Innovative Startup

Innovation Pioneers in Logistics

Cleantech Startup

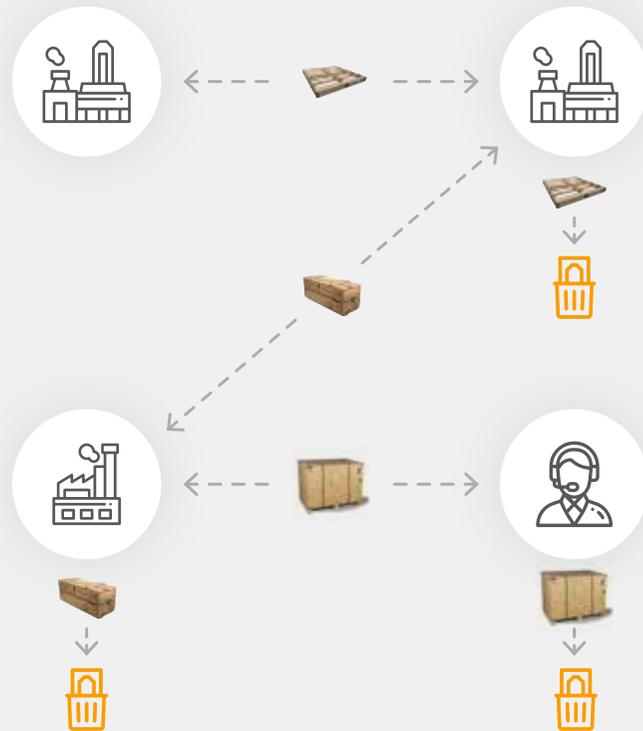


Mission

Facilitate circular logistics through our smart reusable modular and digitally enabled industrial packaging solution. We are a front runner in the development of the Physical Internet.

Losing Millions in Industrial Packaging Every Day

Multiple industrial packaging steps in the supply chains



Example Industries:

- Industrial equipment, machines and parts
- Furniture
- Art pieces
- Certain commodities

Non reusable custom sized pallets and crates



Very Expensive

1 time usage
high production costs
25% – 40% of total logistic costs

High environmental impact (wood waste)

30% of global consumption

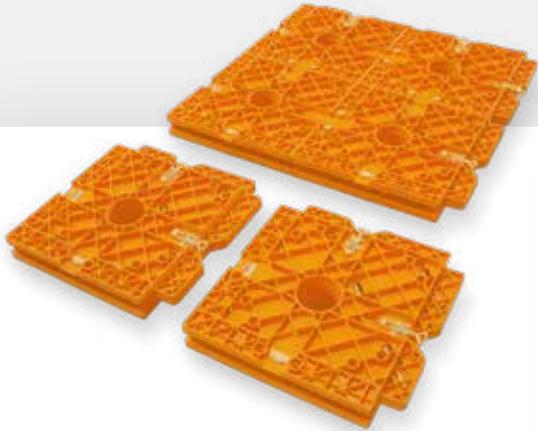
Overhead Inefficiency

Up to 20% man power for Purchase Orders
Non-synchronized deliveries (WH space & Late deliveries)

Not suitable for digitalization era

Limited Data, no Transparency, no Platform

Ponera Solution Reusable Modular Industrial Packaging



- Different sizes of modules attach in any direction.
- No size restrictions.
- Assemble and disassemble 2 components in 5 seconds.
- Transport goods up to 15 Tons!



- Optimal stacking: Lean warehousing and reverse logistics.
- Possible pairing with connectivity devices
 - Efficient circular economy
 - Effective digitization



Extended life-time



100% recycled Polymer



Traceable (IoT)

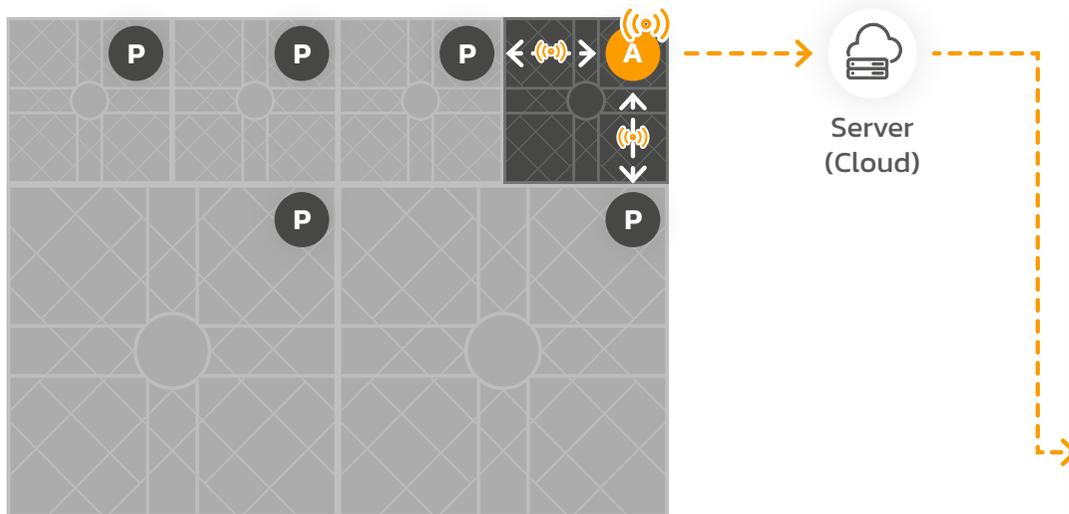
Multiple Patent App.

Fully recyclable

Safety
(operators & goods)

Ponera Brings Packaging to the Industry 4.0 Era

Digital IoT:



Digital Software:



Ponera Mobile App:



- Seamlessly guiding users through Ponera process (SOP)
- Offline enablement
- 5 main product features

Ponera Platform:



Full transparency and real-time visualization of pallets, goods, and main data points

Circularity & Pooling:

Optimizing module fleet management

2 features:

- Inventory Management
- Sharing/transaction enablement

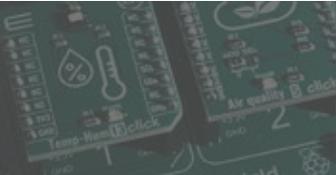
Data Analytics:

Optimizing processes and operations directly or indirectly linked to packing/ freight transport.

- Algos, AI, Data Mining

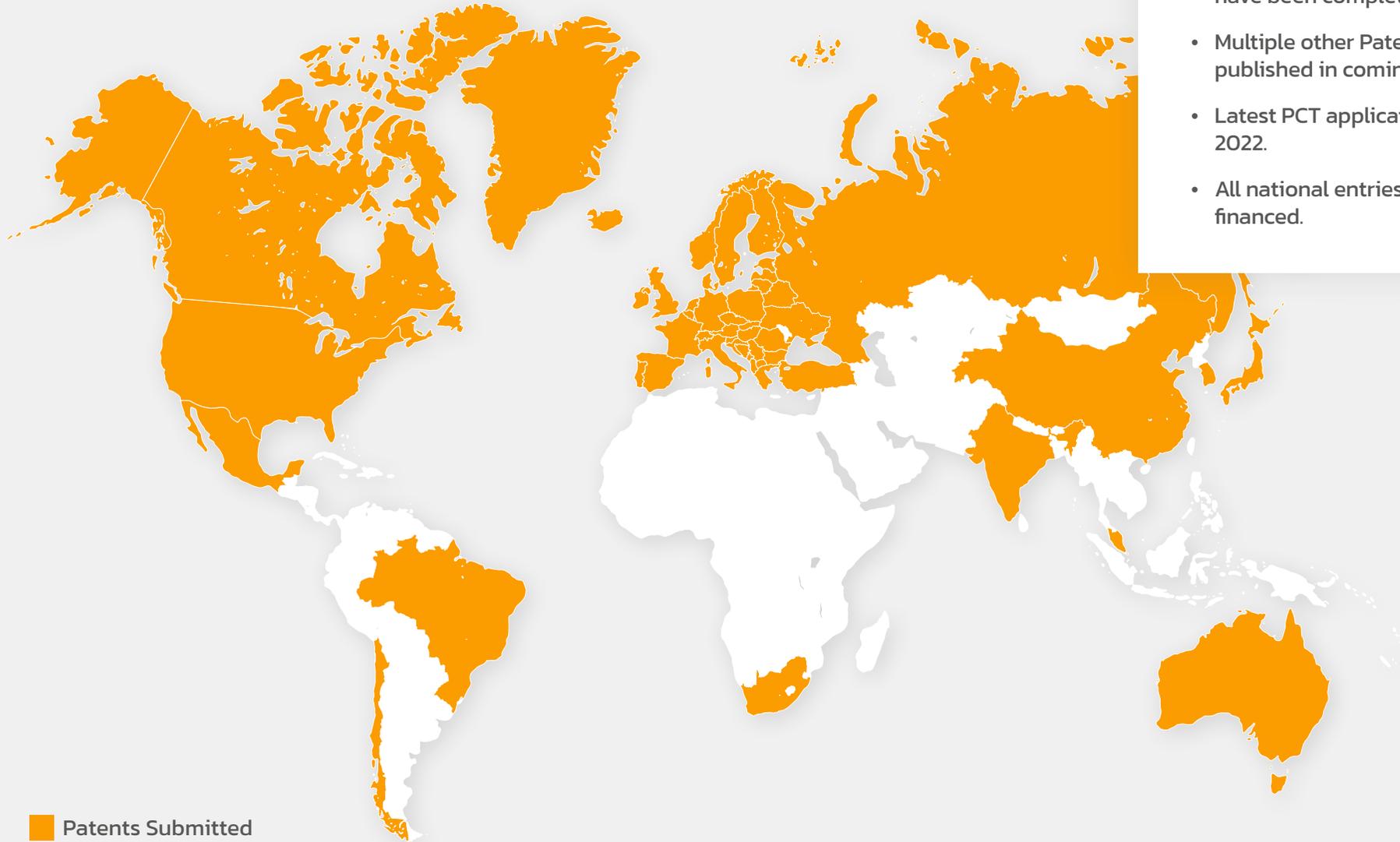
Integration with other platforms

data encryption

| | |
|---|--|
|  <p>Qualitative Sensors Temperature, Shock, Humidity, offline memory</p> |  <p>Highly Cost effective Multi-use, low handling, state of the art, combined technologies</p> |
| <p>Traceable (IoT) GPS Geolocation</p> | <p>Multiple Patent App. International Utility patents</p> |

IP Strategy

Main global economies and trade routes are covered by our IP strategy



Patents Submitted

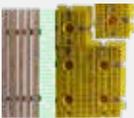


- Multiple PCT applications on Utility for Design and Concept. Positive Feedback received.
- Trademarks on Logo and Name have been completed.
- Multiple other Patents will be published in coming months.
- Latest PCT applications filed in 2022.
- All national entries are fully financed.

Market

Expected Annual Growth through 2026: 5.1%

Due to market growth and additional technology developments



- Full Crates
- IoT Solutions

Specific Logistic flows and Client characteristics

- Specific Industries
- Own Logistics Management
- sub-region (DACH & partially Southern EU)

Global market:
≈ \$66.2 B

3 Year SoM:
≈ \$17 B

1 Year SAM:
≈ \$8.7 B

Europe:
≈ \$2.6 B

Beachhead:
\$300 M

Industrial Packaging



- Euro Pallets (wood & plastic)
- US Pallets (wood & plastic)
- Quarter Pallets
- Cardboards etc.

Customized-size pallets



- OSB
- Plywood etc.



Ref. Fortune Business Insights:
Pallets Market to Reach US\$ 88.69 Bn by 2026; Rising Global Standard Operations for Goods Transportation Drive the Market

Ponera Offers Huge Cost Savings

Total Cost of Ownership

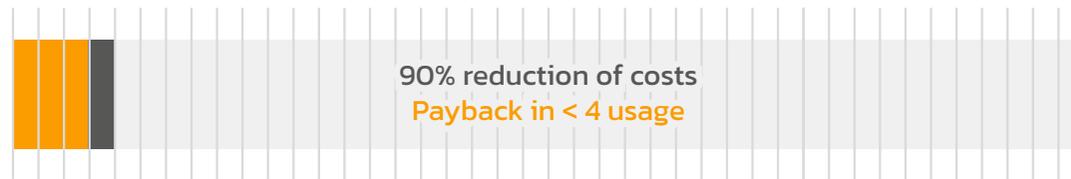
  Cost per 1 m²  Handling Charges



Customized Packaging



Circular Economy



Cost



Additional Benefits

- 60% Lighter
- 4x less warehousing space
- More convenient process
- Digitally enabled
- 85% Transport Inefficiency Reduction
- Reduced Purchase Orders

Huge Reduction in Environmental Footprint

19th - 20th Century Industrial Packaging



- High Variance
- Low turn rates
- High Stock
- Material Waste

30% of wood is used for pallets and crates, often only used 1 time.



25% of CO₂ emissions is to manufacturing (18%) and to transportation (7%) of goods.

- Manufacturing
- Freight

The results are based on models created in OpenLCA 1.8 with the database Ecoinvent Version 2. „Life cycle assessment of one-way and pooled pallet alternatives.“ Procedia CIRP 29 (2015): 414-419 „Environmental analysis of pallets using life cycle analysis and multi-objective dynamic programming.“ Anil et al. (2010)



21st Century Industrial Packaging



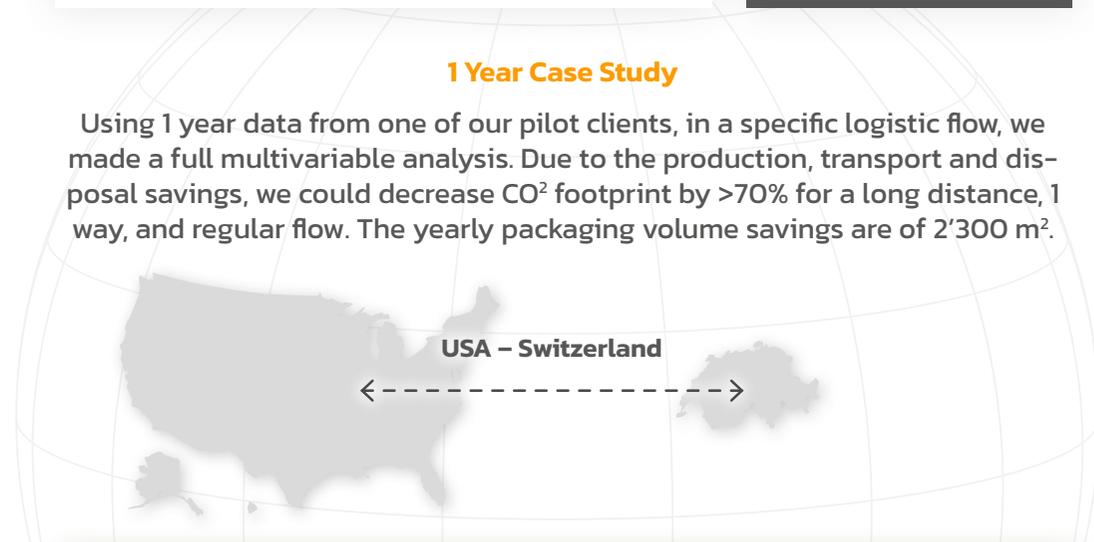
- Standardized
- High turn rates
- Low Stock
- Sustainable



Wood Consumption Reduction 95%

1 Year Case Study

Using 1 year data from one of our pilot clients, in a specific logistic flow, we made a full multivariable analysis. Due to the production, transport and disposal savings, we could decrease CO₂ footprint by >70% for a long distance, 1 way, and regular flow. The yearly packaging volume savings are of 2'300 m³.



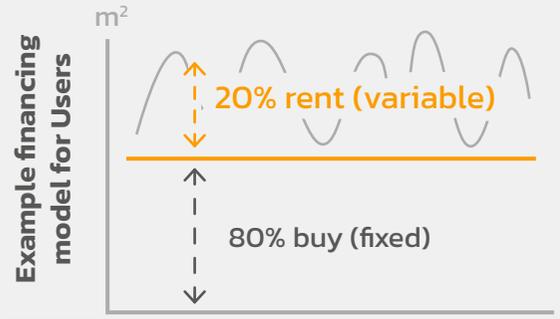
USA – Switzerland



Offered Savings:

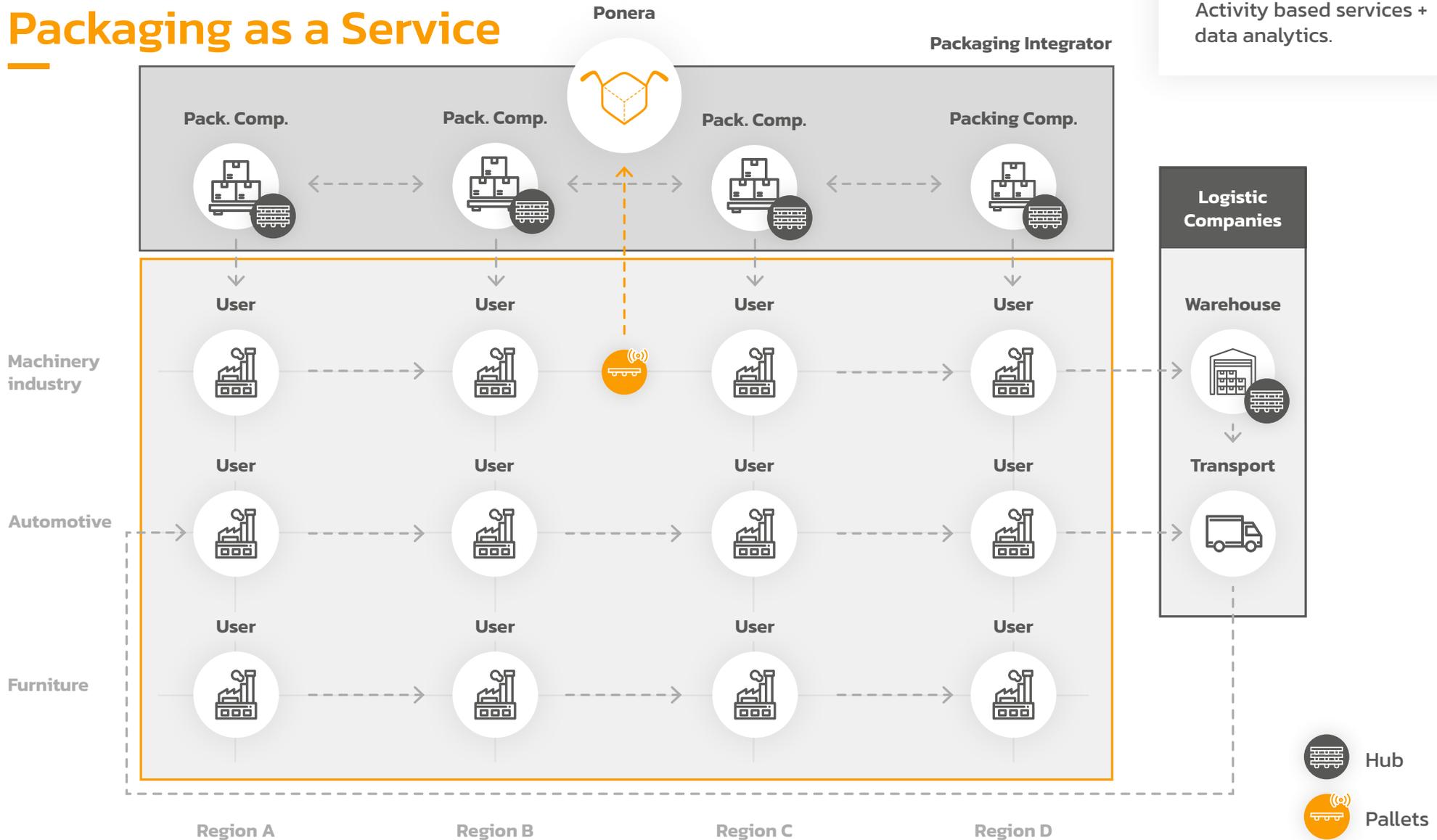
94t CO₂

Product Development & Business Model



| | 1. Selling Model | + 2. Renting Model | + 3. Activity Based Data Services |
|---------------------|--|--|---|
| Business Model | <p>2021</p> <p>Clients' Payback max 2 years</p> | <p>2022</p> <p>Decrease Client CAPEX Increase asset efficiency</p> | <p>2022/2023</p> <p>Transparency / Analytics Process efficiencies</p> |
| Product Development | <ul style="list-style-type: none"> • Heavy duty • Modular packaging system • Circular logistics analytics | <ul style="list-style-type: none"> • Additional auxiliaries • Platform phase 1 • Standard duty modular Pack. line | <ul style="list-style-type: none"> • Platform phase 2 |

Packaging as a Service



Ponera Platform:
Activity based services + data analytics.

User: Owner of the goods being transported

Packing Comp.: Producer, distributor and provider of packaging services

Logistic company: Company providing services and infrastructure for transport services

Funding needed

| Market Validation – 2020 500 K CHF Target (1M CHF Acheived) | Scale Up – 2022 1.8 M CHF + 1.2 M CHF | Growth – 2023/2024 5 M CHF |
|--|---|--|
| Investments: Investment required to create the product (R&D) Business development activities. R&D for product development Net Working Capital for Pilot activities Business devel. activites Multiple international patents and national entries filed | Investments: Supply Chain Build Up Further R&D on Hardware & IoT Solutions Distribution Scaling (Business Dev) | Investments: Develop the renting model Improve the IOT Solutions Business development activities |
| Outcomes: Pilot Activity completed Validated market appetite Market ready product Product ready for Market First clients on-board | Outcomes: Production and Supply Chain in place IoT ready for deployment Globalization of operations and client base | Outcomes: Renting Model in place (Mix Sales/Rental) IOT Solutions phase 2 |

Join us in shaping the future of logistics



Matthew Reali
Chief Executive Officer
matthew.reali@poneragroup.com



Masoud Talebi Amiri
Chief Technology Officer
masoud@poneragroup.com



Xavier Pereira Da Costa
Head of Supply Chain
xavier.costa@poneragroup.com

contact@poneragroup.com