



**LOGISTICS ARTS
PRODUCTION**

PITCH-DECK

GLOBAL

Challenges

- According to forecasts, the global volume of waste from plastics, plastic composites, and mixed materials is expected to double by 2050, reaching approximately 4 billion tonnes.
- This increase is driven by demographic changes and consumption patterns.
- With growing urbanization and changing lifestyles, the demand for goods and services is rising, contributing to the escalating waste crisis.



THE FUTURE CHALLENGE

Increasingly complex packaging materials hinder the recycling and use of recyclates from packaging waste



In 2021, an average of 189 kg of packaging waste per capita was generated in the EU-27. Germany ranked among the highest, with 237 kg per person!



Approximately 40% of plastics and 50% of paper used in the EU are intended for packaging purposes.



The reuse of packaging has declined significantly over the past 10 years.



Packaging generates CO₂ emissions equivalent to the total CO₂ emissions of a small to medium-sized EU country.



Packaging pollutes soil and land and accounts for approximately half of marine pollution.



Food packaging, lightweight food packaging, and paper composites have increased by more than 20% in the EU over the past 10 years and are expected to grow by another 19% by 2030. Plastic packaging waste is projected to rise by 46% by 2030.

OUR SOLUTION

Reusable pallets made from waste



- Recycling of plastic waste and waste from mixed plastics, composite materials, and wood waste reduces CO₂ emissions.
- Conservation of resources by avoiding the use of virgin wood and utilizing secondary raw materials.
- The reparability of the LAP pallet reduces costs, conserves resources, and enhances competitiveness.
- Reduction of raw material dependency through the flexible use of various material streams. Thanks to the recyclability of the LAP pallet, the material can be reused in the production of a new LAP pallet.

Our solution

Lean production process



01

Shredding

Shredding of problematic material streams and waste wood into regrind. No prior separation, granulation, or use of water required.



02

Mixing

Injection of the material mix into the mold. Input materials are blended with an ecological or chemical binder.



03

Compaction process

Thermal treatment with hot air during the pressing process (100-200 degrees Celsius). Elimination of bacteria, viruses, mold spores and odors.



04

Pallet removal

Fully automated removal of end products (e.g., pallets or products for the construction industry).



According to a forecast by management consultants Roland Berger, value creation in plastics recycling is set to increase twelvefold by 2050. The circular economy is becoming increasingly important and is thus becoming a fundamental part of the entire supply chain and raw material supply.

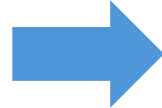
Our solution

Production of pallets from different waste streams



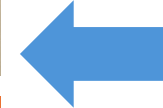
Plastic waste

- ✓ Paper composites
- ✓ Lightweight food packaging
 - ✓ Used textiles
 - ✓ Tetra Pak
- ✓ Mixed thermoplastics



LAP Pallet

- ✓ Made from recycled waste materials
 - ✓ Durable
 - ✓ Recyclable
 - ✓ Sustainable
- ✓ No conversion of the production system required when changing materials
- ✓ Production process not sensitive to impurities (small metal parts, dirt and adhesions)



Fiber-containing waste

- ✓ Waste wood of classes A1, A2
- ✓ Industrial hemp, bamboo
- ✓ Natural & synthetic fibers

A system with a holistic approach

Systemic approach to production, development and licensing



Legend:
green: day-to-day operations
grew: development, sales and IT

Customer benefits

The LAP pallet combines the best of single-use and reusable pallets at the best price

Same load capacity with less weight

The load capacity of the LAP pallet made of pressboard is 1:1 to single-use pallets made of solid wood.

Compliance with new EU regulations

New EU regulations in the context of the Green Deal, such as the PPWR and the EUDR, Digital Product Passport, the CSDDD or the Waste Framework Directive, require sustainable and transparent material flows and products.



Improving the carbon footprint

The LAP pallet is made from plastic and mixed plastic waste, composite materials and wood waste. As a result, the CO2 footprint is reduced in line with EU regulations.

Attractive price

Secondary raw material prices are significantly lower than natural wood. This reduces the selling price compared to the competition.

EU - packaging regulation - PPWR

Is a challenge for the industry, but offers opportunities for players in the circular economy



The new PPWR presents the recycling industry with challenges but also offers opportunities for further development and positioning as a key player in the circular economy. The PPWR requires all packaging, including pallets, to be recyclable or reusable by 2030.

01

Recyclability

All packaging, including pallets, must be recyclable or reusable by 2030.

02

Reuseability

At the end of its life cycle, a Euro pallet may only be processed into wood chips, for example as chipboard, or as part of our material process.

03

Material requirements

Tightening the requirements for pallet materials to ensure that they meet recycling and reuse targets.

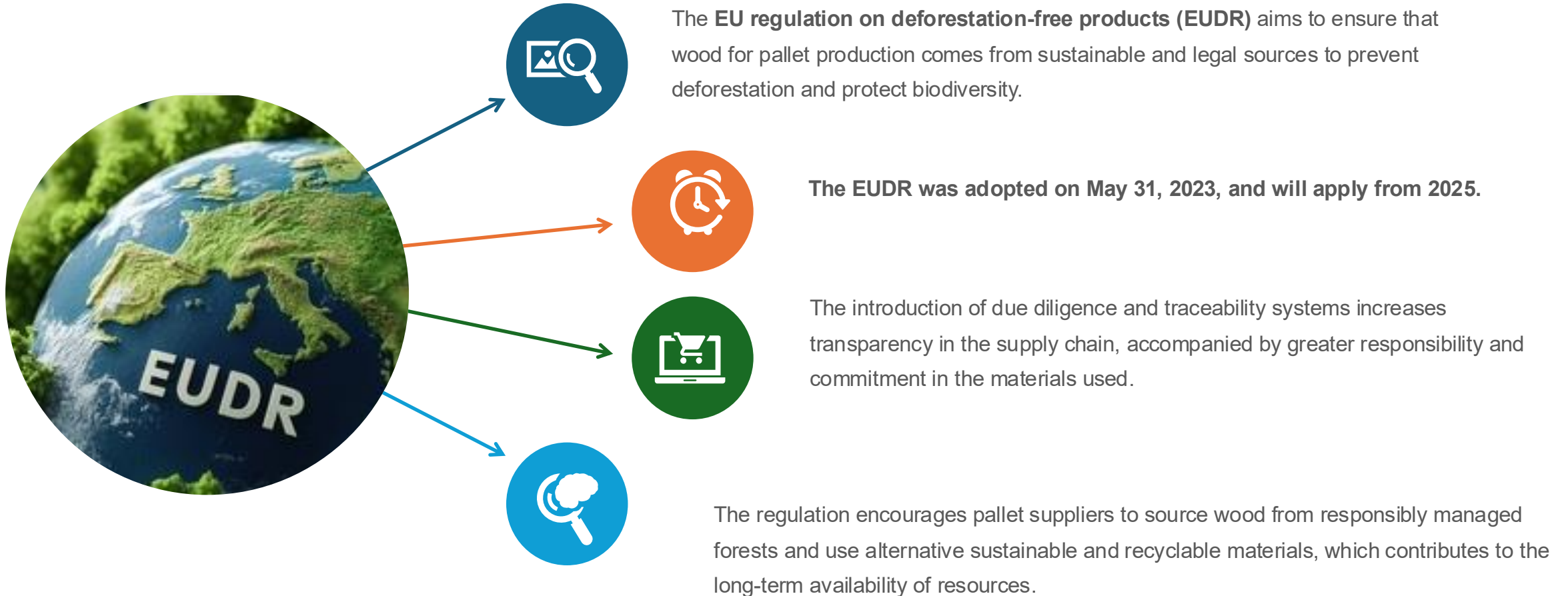
04

Cooperation with manufacturers

Close cooperation between waste disposal companies and pallet manufacturers is necessary to establish effective take-back and recycling systems.

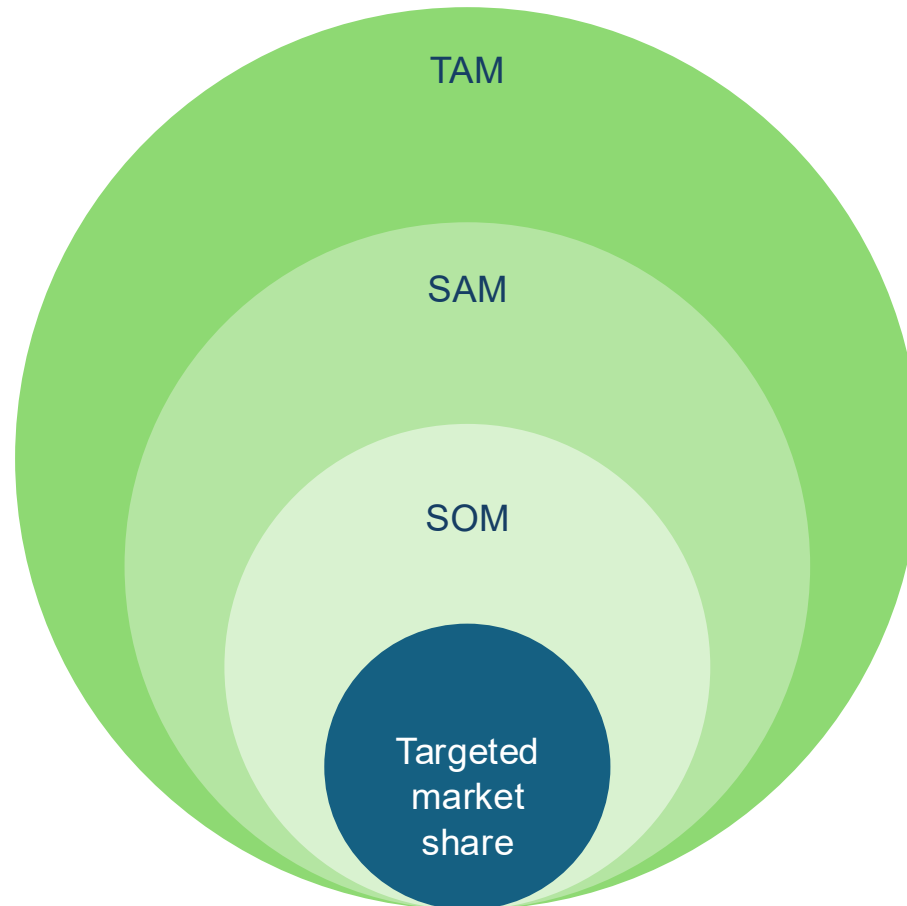
EU regulation on deforestation-free products

Obliges pallet manufacturers to obtain their wood from sustainable and legal sources



Addressable pallet market in Europe

Load carriers - a growth market with diverse opportunities



Total Available
Market (TAM)

2.5 billion €

With 500 million pallets per year

Serviceable Available
Market (SAM)

1.8 billion €

With 350 million single-use pallets
(70% of the total market)

Serviceable Obtainable
Market (SOM)

0.35 billion €

With 70 million single-use pallets per
year

Our targeted market share

10%

Corresponds to ~7 million single-use
pallets

- In Europe, around 4 billion pallets are in use.
- Around 500 million new pallets are added every year, of which around 350 million are “single-use pallets” outside a pooling system.

German plastics industry under pressure

Great potential for recycling remains untapped



↓ **8,5 %**

Plastic production

Plastic conversion into plastic products amounted to 12.85 million tons in 2023, a decrease of 8.5% compared to 2021.

↑ **17,2%**

Use of recycled materials

The use of recyclates in processing has increased by 17.2% compared to 2021.

5.9 m tons

Plastic waste

In 2023, a total of 5.91 million tons of plastic waste was collected in Germany. Around 2.2 million tons of waste streams such as residual household waste or mixed commercial waste were not recycled for energy and remain unused.

To accelerate the closing of material cycles, PlasticsEurope Deutschland e. V., the association of plastics producers in Germany, emphasizes that not only recycling and the use of recyclates must be further advanced, but also recycling-friendly product design, a reduction in exports of plastic waste outside Europe, a swift EU-wide ban on landfill disposal of plastic waste, investments in modern sorting and recycling plant, and the promotion of open-technology recycling solutions.

LAP is responding to this call by combining plastic waste with fiber-containing waste and waste wood to create a sustainable pallet that can be distributed and recycled in a closed-loop system.

Competitor analysis

No direct competitors for hybrid pallets made from plastic waste and waste wood

Currently, there are no competitors in the market for hybrid pallets. By securing our technology with relevant EU patents and utility models, we will continue to shape and lead this market in the future. Potential competitors are therefore limited to those operating in the fields of recycled plastic pallets or compressed wood pallets.

Competitors	Plastic	Compressed wood	Product specialties
Cabka Group	✓	✗	Specialized in recycled plastic pallets
Schoeller Allibert	✓	✗	Reusable packaging solutions
Q-Pall BV	✓	✗	Innovative, eco-friendly pallet production
Binderholz	✗	✓	Sustainable wood processing and products
INKA Paletten	✗	✓	Pioneer in compressed wood pallet production
Holliger Paletten	✗	✓	Specialist for recycled wood pallets

Our product combines the positive characteristics of both product groups. On the one hand, the durability of the plastic pallet and the low weight and nestability of a compressed wood pallet.

Competitor analysis

Product comparison INKA vs. LAP pallets



	INKA	LAP
Material composition	Made from compressed wood chips	Mixture of recycled plastic and wood chips, increased robustness and durability thanks to mixed materials.
Weight and nestability	Both pallet types are characterized by their low weight and space-saving nesting capability, which reduces storage and transport costs.	Both pallet types are characterized by their low weight and space-saving nesting capability, which reduces storage and transport costs.
Stability and durability		The incorporation of plastic in the LAP pallet increases its load-bearing capacity and service life compared to pure compressed wood pallets.
Repairability	Not repairable, used pallets are recycled.	LAP pallet - RFID based - recyclable: turn defective into new - re-marketing cash back to the buyer.
Runner option		Offers the option of attaching or removing runners. This extends the possible uses of the LAP pallet, especially in automated storage systems.

The introduction of the LAP pallet will have a major impact on the load carrier market, especially as companies increasingly focus on sustainable and durable solutions. Its hybrid material composition and advanced features will make it an attractive alternative to traditional compressed wood and plastic pallets. It will also help companies meet their sustainability goals and commitments.

Sales strategy

With over 50 years of experience in the reusable and single-use load carrier industry and our membership in both EPAL and UIC/EUR brand associations, we know our market players personally—for example, companies such as Palmax GmbH, HPZ, Ilshöfer, Schroth, Füngeling, PALETTEN-SERVICE Hamburg AG, Hildebrandt AG, Prodinger—as well as platforms like Pacurion GmbH or Pallet Control Tower Ltd. In addition, we have access to information on more than 1,600 licensees worldwide.

Our sales strategy comprises several phases



Direct sales as core strategy

Direct sales are planned through this network. In addition, the pallet will be presented and promoted at various trade fairs and congresses in the retail and logistics sectors starting from the production launch.

Presence at trade fairs and conferences

We participate in relevant trade fairs and events to showcase our products and services to a broad professional audience, establish new contacts, and identify market trends at an early stage.

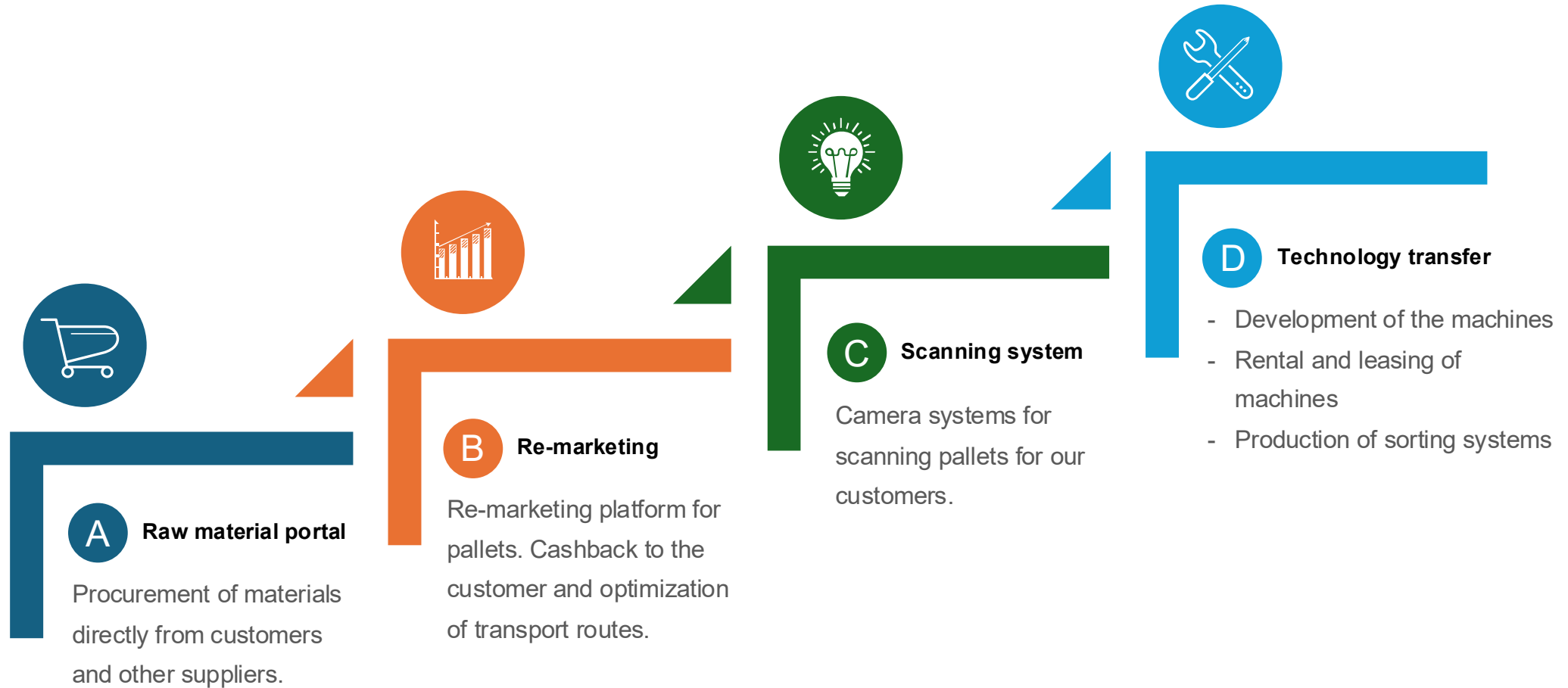
Expansion through digital sales channels

After establishing initial direct sales contacts, a B2B webshop will be launched, offering our partners an efficient and straightforward ordering option. This channel will significantly increase the reach and accessibility of our products.

Our goal is to establish a strong market presence through this multi-level sales strategy, build long-term customer relationships, and continuously unlock new business opportunities.

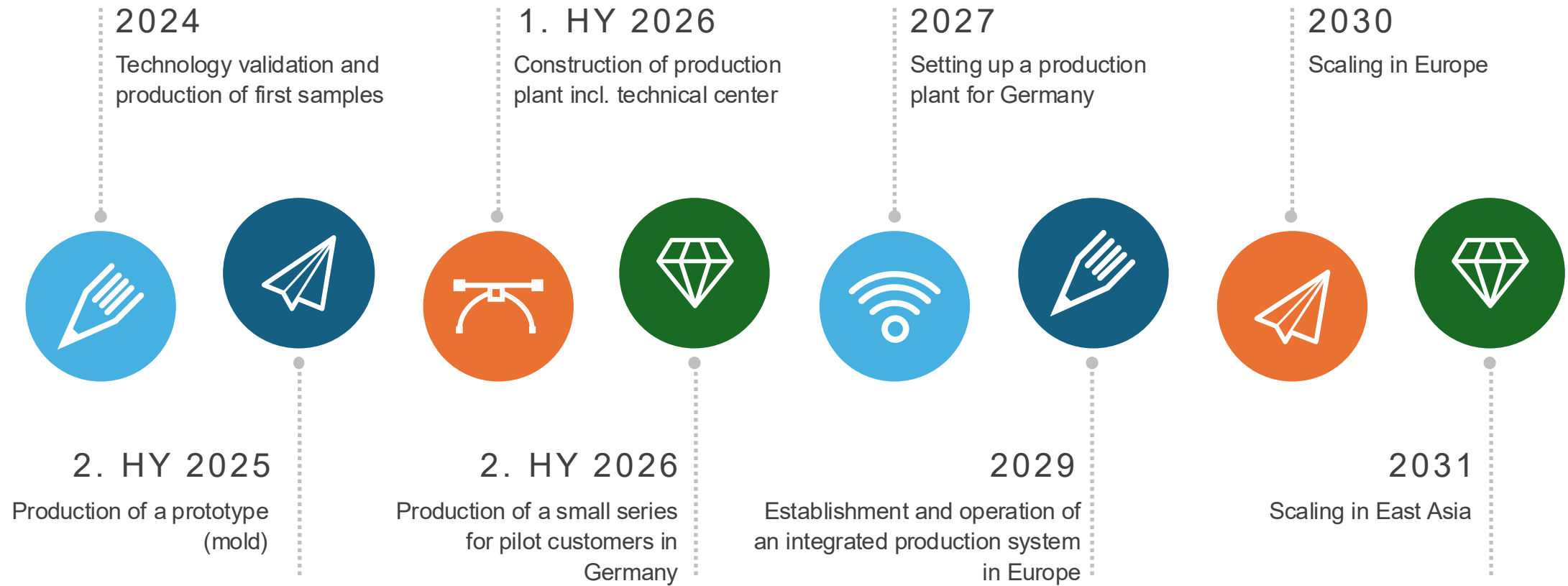
Advanced business models

Already planned and will be successively implemented



Roadmap

Load carriers - a growth market with diverse opportunities





Our team – expert, versatile, and agile

The founding team



Willy Lutz

**Managing Partner
Shareholder 95%**

- Former MD at Pallet Service Lutz
- 30+ years of experience in pallet trading



Erwin Mertler

**Waste-flow Manager
Shareholder 5%**

- MD at TERRA SSM (10+ years)
- Former waste flow manager at ALBA and Veolia
- Recycling industry expert (20+ years)



Martin Leibrandt

**Strategic Business
Development & Sales**

- Former CEO at EPAL
- Logistics & pallet industry expert (25+ years of experience)
- Excellent global network

Our team – expert, versatile, and agile

Together >100 years of experience



Evelyn Pikal

HR Manager

Experience & network
Expertise in human
resources and
psychology > 20 years



Mujib Bazhwal

Strategic Advisor to CEO

Former founder of
RoadJet (mobility
startup)
Experience in strategy,
innovation, and
investment
Founder & owner of
Zukunft.Gründen
Venture Studio



Nicole Kösegi

Marketing

Expert in the recycling
industry with focus on
packaging and textiles,
with more than 20 years
of experience and
network



Martin Pick

Digital Advisor

Project manager for
digital, e-commerce,
and IT projects;
>15 years of experience
working with corporate
clients and IT service
providers



Johannes Hauer

Head of Plastics Technology Research

>25 years of experience
in plastics technology &
recycling
Founder of Hauer
Technology,
expert in injection
molding & compounds
Focus: Development,
consulting, 3D design &
process optimization



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