Industrial Packaging

Navigating through cost, complexity and sustainability challenges

Key findings – A brief overview

June 2024

DELTA

PACKAGING, SERVICES & SOLUTIONS

Executive Summary

Industrial companies increasingly recognize the impact of packaging on their bottom line and environmental footprint, making packaging operations a critical focus area. Here are the key insights of what packaging experts say:

Trends

- The **shortage of skilled labor** significantly impacts packaging operations.
- **Sustainability** topics like reduction of CO2 emissions and plastic replacement become more and more important.
- **Digital and intelligent packaging** solutions still play an unimportant role in industrial packaging.

Key challenges

- **Balancing Priorities:** While cost management remains a primary focus, sustainability aspects are equally significant.
- **Future Shift:** Over time, sustainability is expected to surpass the importance of cost management.
- **Strategic approaches: T**here's a growing recognition of the value of taking a holistic view along the supply chain

Cost and complexity

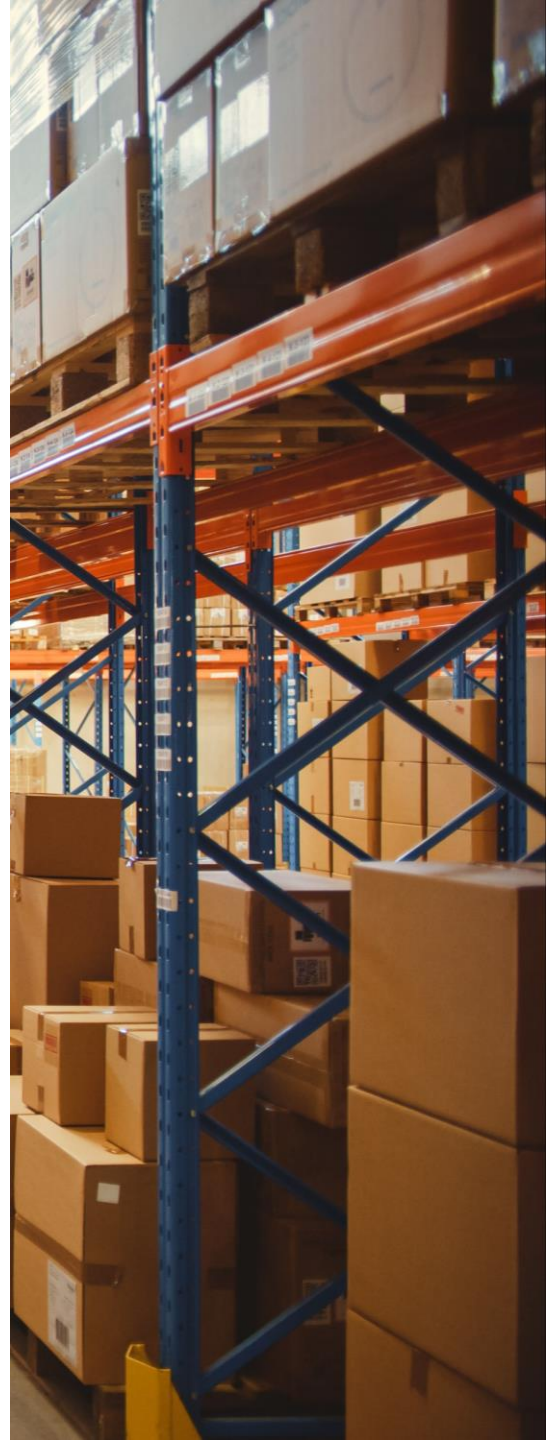
- **Packaging Design Optimization:** Focusing on direct optimization of packaging design remains crucial for cost reduction
- **Growing emphasis on supply chain optimization:** Companies are increasingly paying attention to supply chain optimization as a strategic area for improvement.

Sustainability

- **Limited packaging sustainability targets:** Most companies do not have specific sustainability targets dedicated solely to packaging.
- **Material diversification and circularity as key measures:** To achieve sustainability objectives, companies are increasingly focusing on circular materials and concepts.

Recommendations for organizations

- A comprehensive approach to packaging design and engineering can offer cost benefits while simultaneously advancing sustainability.
- Focus on core competencies and outsource non-value-adding packaging activities.
- Set clear sustainability targets for packaging operations. Think big, start small.
- Discover potential along the whole packaging supply chain

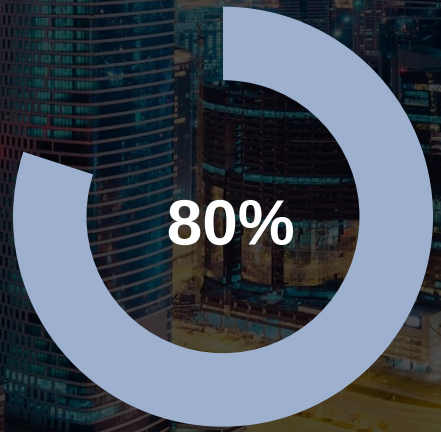


Which *Trends* influence packaging operations?

Key findings

- Sustainability takes center stage
- Organizations struggle with getting experienced packaging experts

of organizations name **“Reduction of CO_2 emissions”** as the main trend for their packaging operations



of industrial companies struggle to **find experienced packaging** experts

of firms try to use **plastic-free** packaging

State that **automation activities** drive their packaging strategy

The **reduction of CO2 emissions** stands out as a **central trend** for packaging professionals, with **83% of respondents** acknowledging its **potential impact** on their portfolios in the future

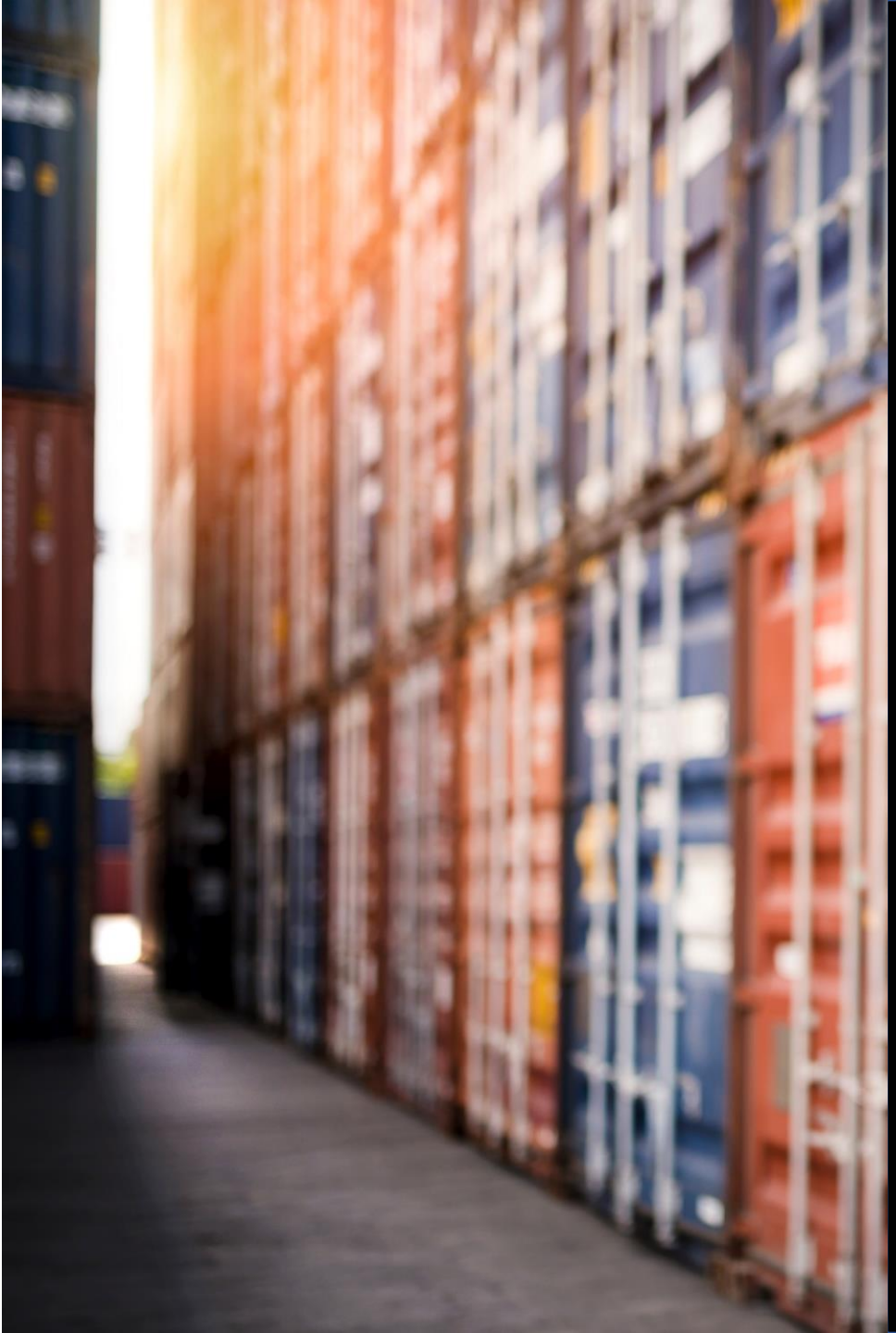
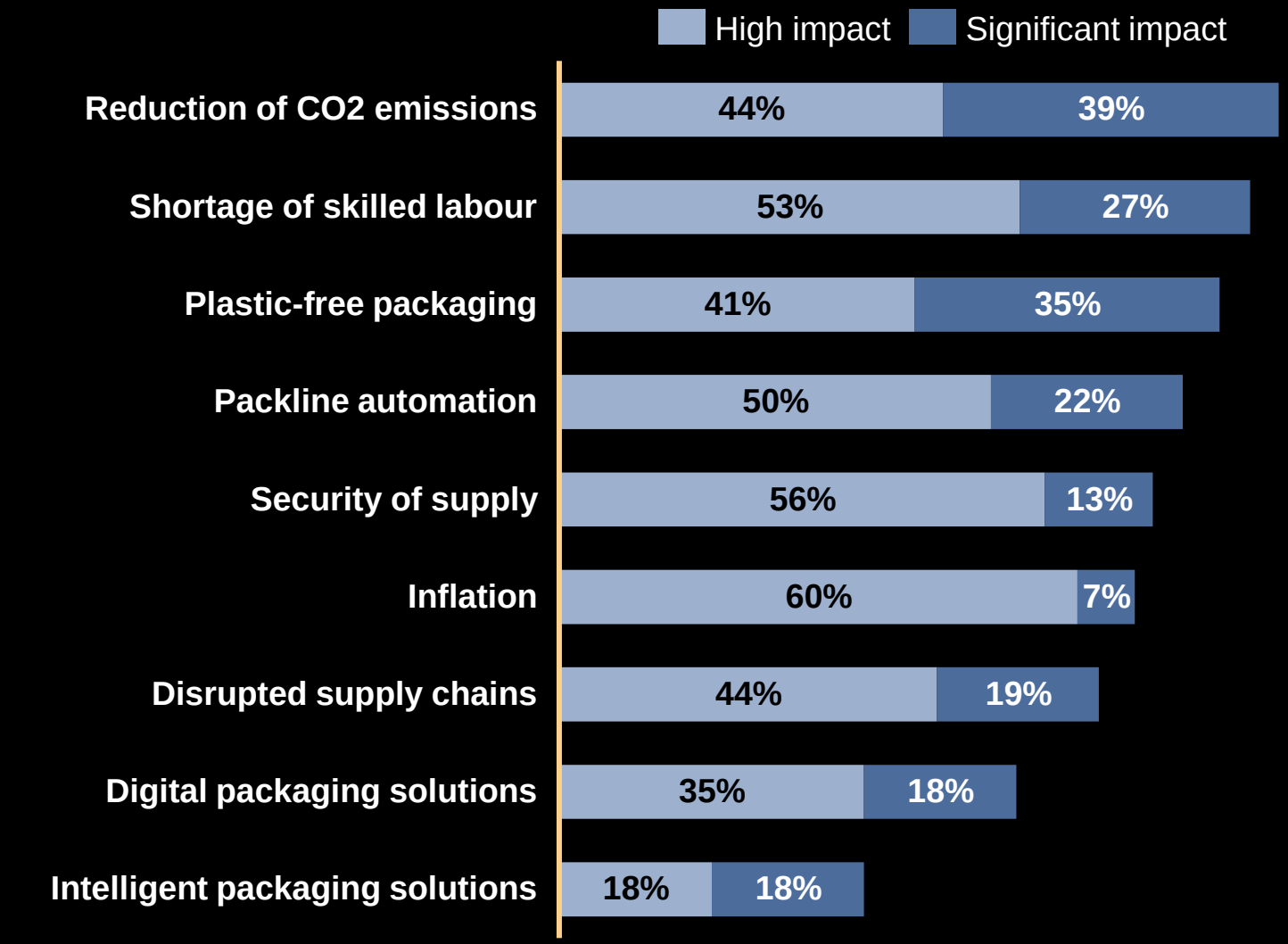


Figure 1

Trends – All answers

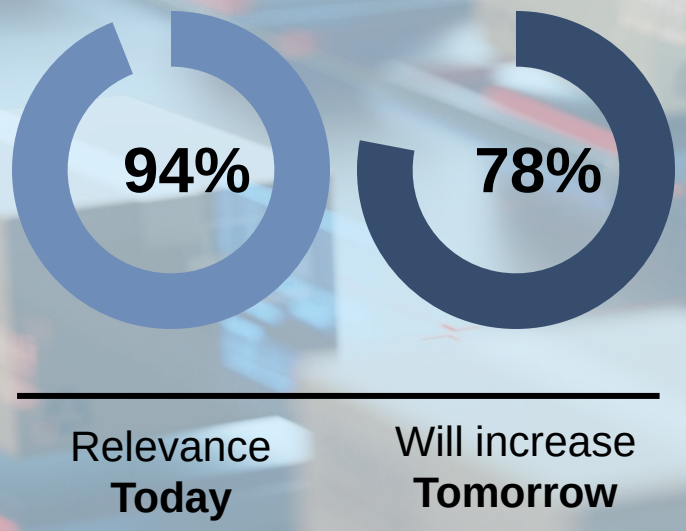


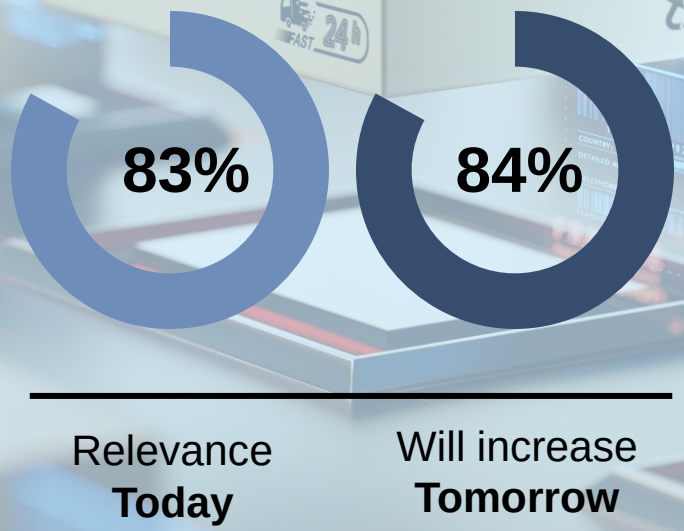
Q: How do you rate the impact of the following trends on your packaging portfolio in the coming years

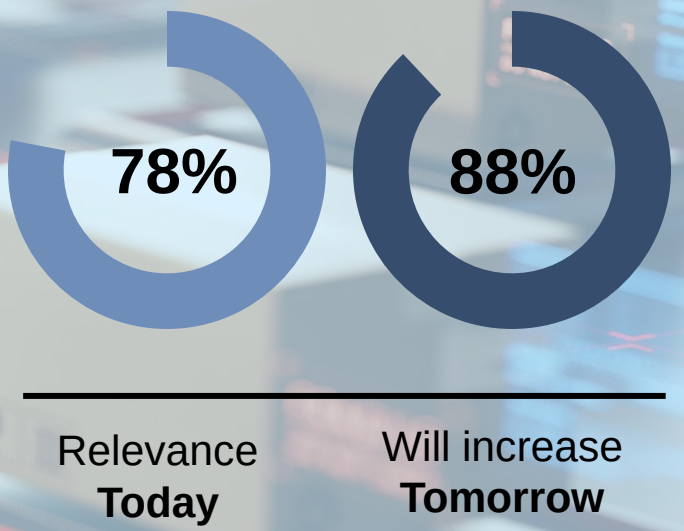
What are the critical operational challenges – Today and tomorrow?

Key findings

- Evolving Priorities: A Gradual Shift Ahead - from pure cost management to a holistic supply chain view
- Integration of sustainability measures into daily operations still challenging





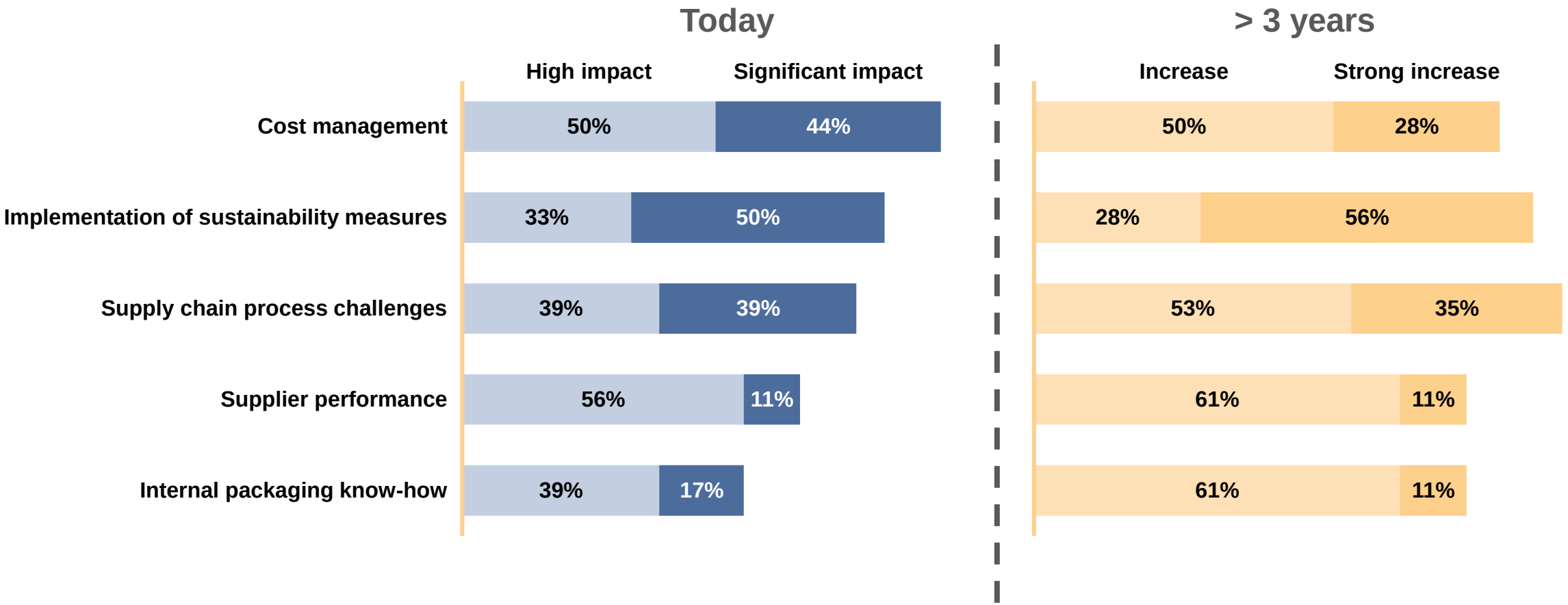


Process efficiency and control rank third among today's challenges, but they are expected to increase in importance the most in the future, with

88% of respondents recognizing their significance.

Figure 2:

Operational challenges – All answers

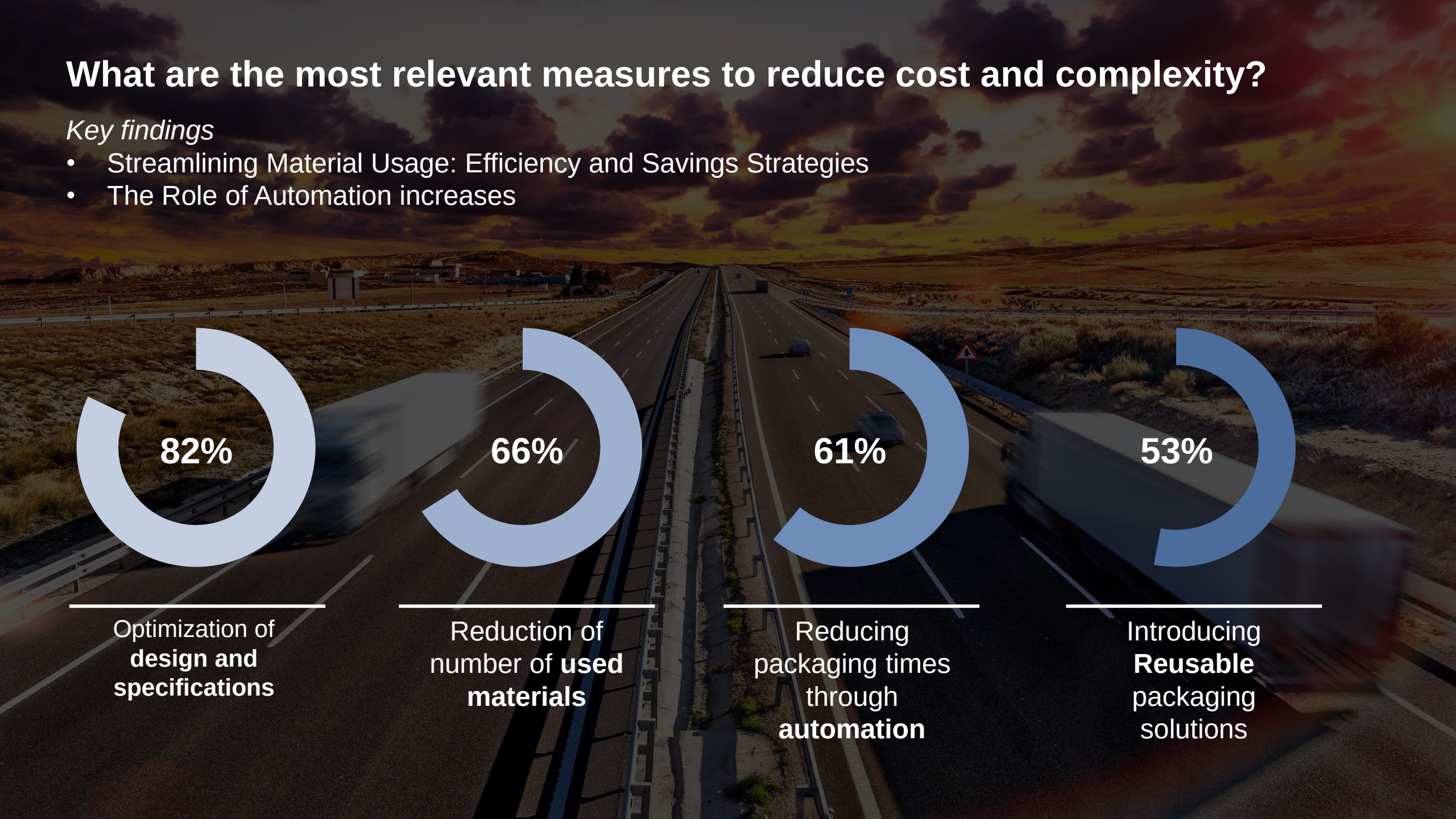


Q1: How do you rate the importance of the following packaging challenges for your company
Q2: How do you expect this importance to change in the future? (> 3 years)

What are the most relevant measures to reduce cost and complexity?

Key findings

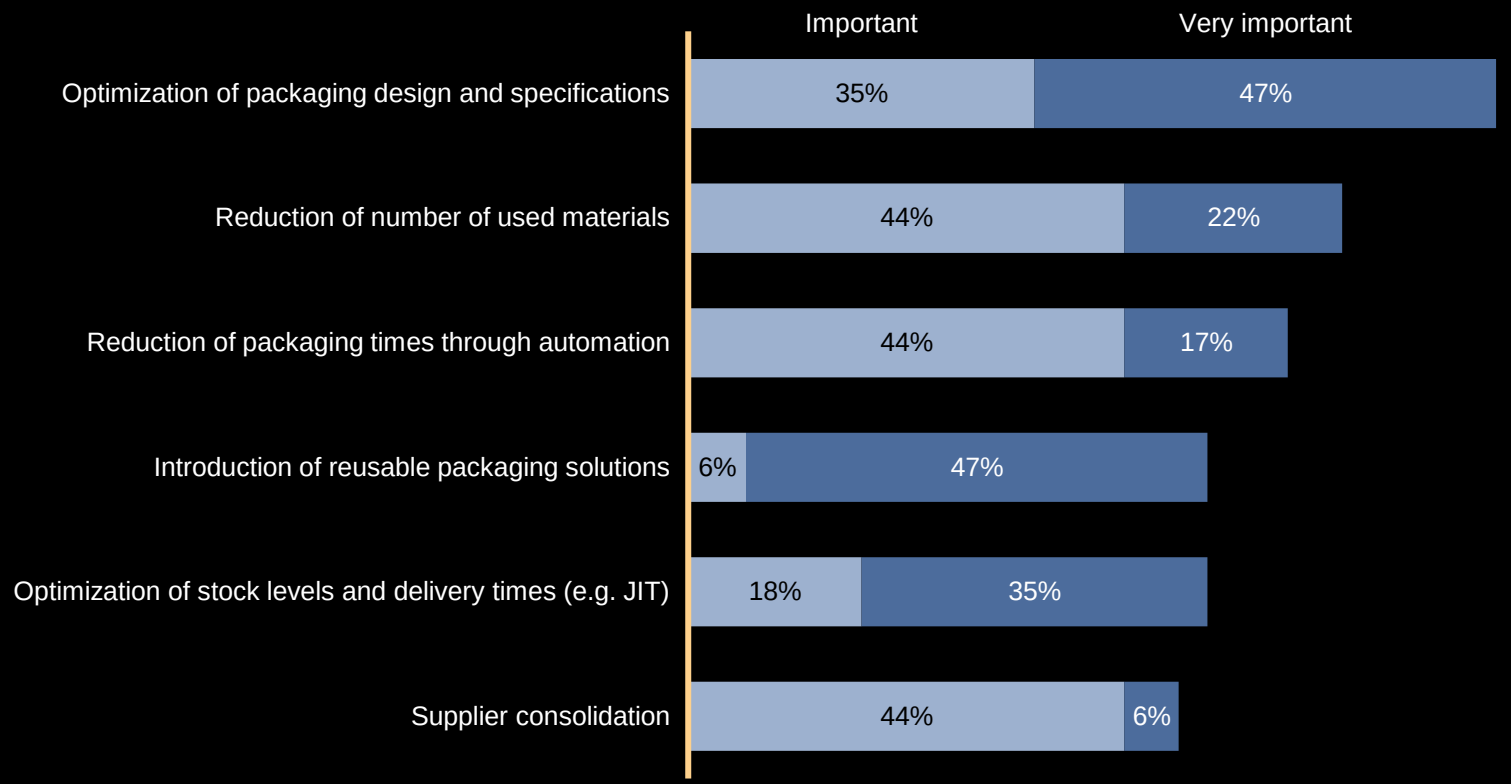
- Streamlining Material Usage: Efficiency and Savings Strategies
- The Role of Automation increases




82% of companies recognize that optimizing packaging design and specifications can significantly contribute to cost reduction and simplification

Figure 3

Cost measures – All answers

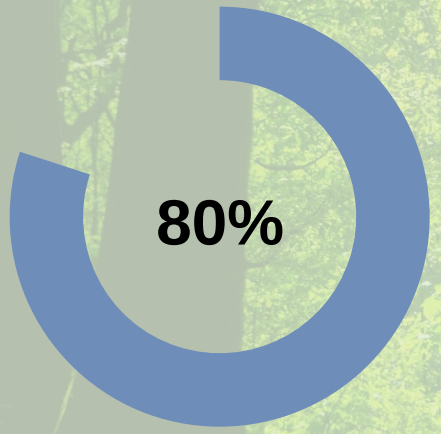


Q: How important are the following packaging cost and complexity reduction measures for your company

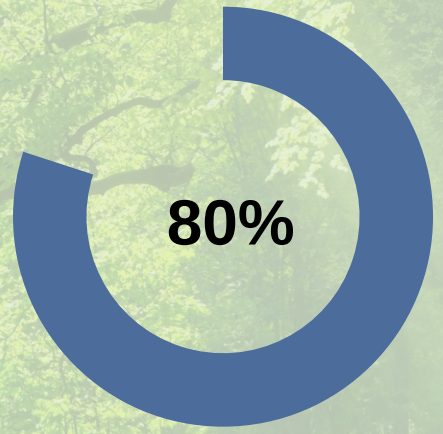
What steps do companies take to realize sustainability objectives?

Key findings

- A majority does not have quantitative sustainability targets for packaging
- Material Diversification: Designing for sustainable packaging solutions
- Embracing the Circular Economy: Companies increasingly pursue closed-loop solutions



of organizations are likely to adopt **“circular materials and concepts”**

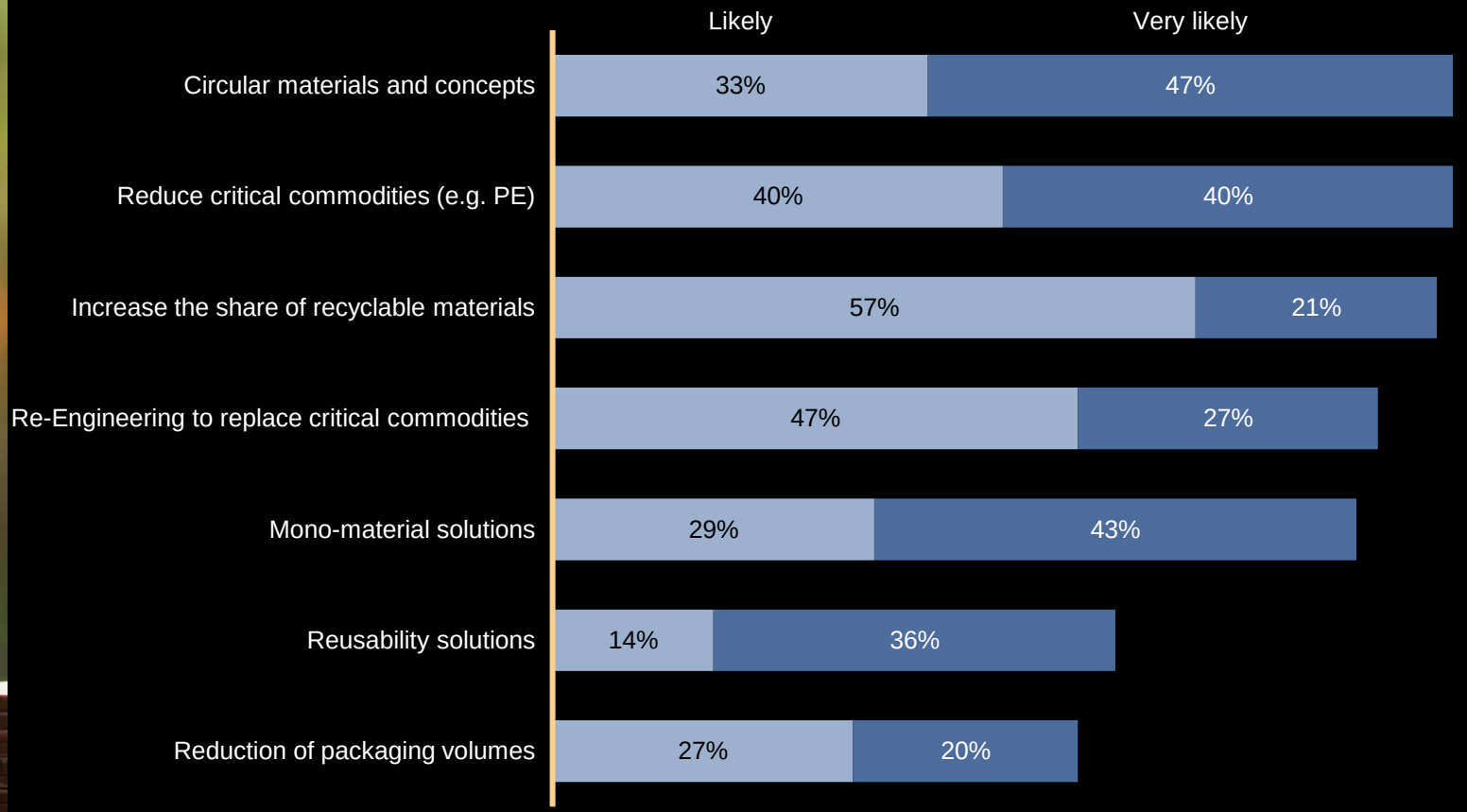


of respondents are likely to **reduce critical commodities** such as plastics


More than 90% believe
sustainability aspects
have a significant impact
on the packaging
portfolio of the future

Figure 6

Sustainability measures – All answers



Q: How likely is your company to implement the following sustainability measures in your packaging operations?

Recommendations

Four main fields of activities arise from the study results

Sustainability – Think big, start small
Achieving sustainability requires a dual mindset: thinking big by setting clear goals for packaging and starting small by implementing projects with impact at the individual product level.

Focus on core competencies and outsource non-value-adding packaging activities
Focusing on core competencies and outsourcing non-value-adding packaging activities can lead to cost reduction, improved efficiency, scalability, and access to specialized expertise.

Apply a holistic approach to packaging engineering
A comprehensive approach to packaging engineering can offer cost benefits while simultaneously advancing sustainability.

Discover potential along the whole packaging supply chain
Apply an integrated approach to packaging operations along the supply chain to identify and implement efficiency measures beyond packaging design.

DELTA

PACKAGING, SERVICES & SOLUTIONS

About us

WE ARE MORE THAN JUST A PACKAGING SUPPLIER....

WE ARE:

Advised +**200** customers on topics like packaging strategy, packaging engineering and process efficiency

More than **150** suppliers across all packaging commodities across Europe

More than **15** packaging commodities in our portfolio

Delivered customers in more than **40** European countries and globally

Dangerous goods approval projects for **10+** industries

Replaced **>200 million** pieces of plastics with more sustainable materials

PACKAGING ENGINEERS

- Engineering & Design
- Delta laboratories
- Dangerous goods approval

PROTOTYPE MANUFACTURERS

- Prototype & pilot production
- Ramp-up support
- Quality management

SUPPLY CHAIN EXPERTS

- Supplier outsourcing
- End-2-end supply chain management
- Logistics management

PROCESS CONSULTANTS

- Process optimization
- Cost-out support
- Packaging strategy

Examples of our work

Global Automotive OEM
C-Part Management for Packaging

Challenge

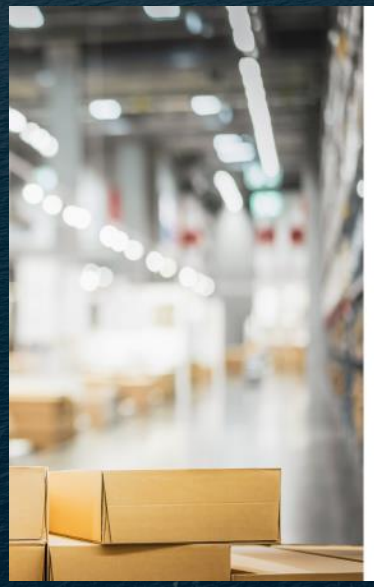
- Packaging spend 15 Mio € with
  - more than 1.100 packaging items
  - in 8 different commodities
  - purchased from more than 250 suppliers in 19 countries
- Loss of focus on core competencies due to high workload for non-profitable procurement efforts for packaging material
- Loss of savings opportunities due to missing expertise in packaging
- Extensive and time consuming efforts to prepare and execute market tests with relatively low results

Approach | Solution

- Analysis of supplier base and current packaging product portfolio
- Preparation of action plan incl. benchmarking roadmap
- Transfer of suppliers and products to DELTA
- Implementation of DELTA procurement process as one-stop-shop for the customer

Result

- Outsourcing of non-value added and non profitable procurement of packaging material to DELTA
- Achievement of OTIF performance > 98% which results in nearly permanent availability of packaging material in the right quality, the right quantity at the right time
- Reduction from > 250 suppliers down to one (DELTA)
- Established back up supplier base in case of business disruption
- Regular benchmarking activities with an annual profitability of 6 – 8% year on year



World-leading industry supplier
Sustainability engineering and scale-up support

The problem

- A large industry supplier required a sustainable mono-material packaging solutions for bicycle computers for e-bikes
- A temporary solution comprised of corrugated, foam and plastics should be replaced

The solution

- Detailed analysis of existing solution
- Engineering of a new fiber casting solution based on customer specifications (Dimensions, stability, sustainability)
- Pilot production and sampling through inhouse capabilities
- Successful supply test
- Ramp-up support of series production

Tangible results for the customer

- Sustainable mono-material solution
- Purchasing costs reduced from 1.12 € to 0.68€ (-40%; 70 k€ p.a.)
- Packaging license costs reduced by 80%
- Avoidance of ‚Plastic packaging tax'
- Reduction of CO2 emissions by 80%
- Increase of stability by factor 10

Leading Car Components Manufacturer
Packaging Design and Logistics Optimization

Challenge

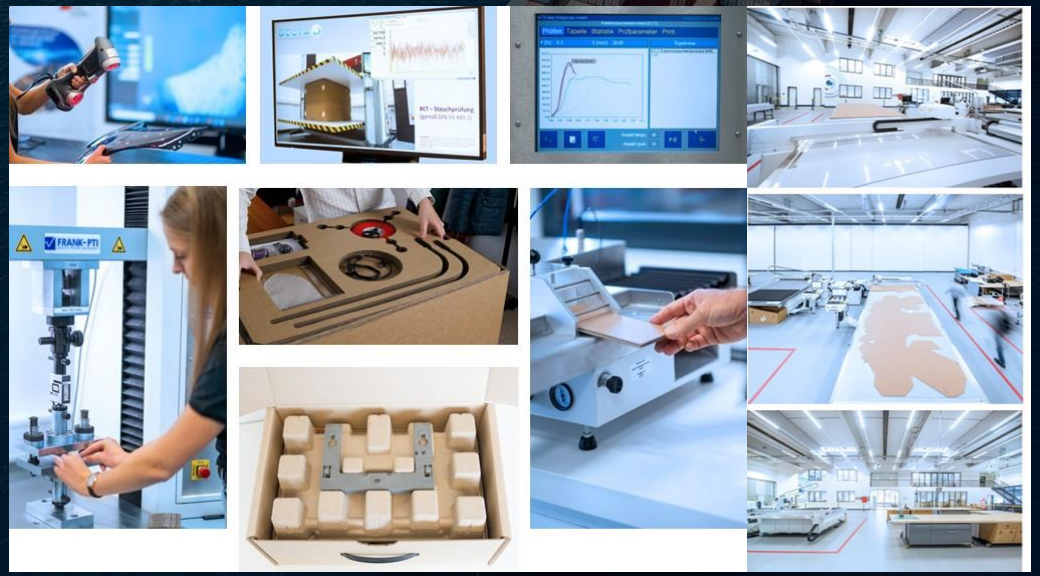
- Multipart packaging for 4 car models with ready for assembly bumpers
- Transport to car production plant via truck, air freight in an overseas capable packaging container
- Substitution of temporary serial steel packaging rack
- Reduction of total costs

Approach | Solution

- Analysis of existing solution
- Development of new packaging design with focus on optimal packing density for all transport routes (street, sea, air)
- Optimal surface protection of painted parts
- Successful transport test via truck, ship and aircraft with initial batch of packaging → SOP

Result

- Multi-material packaging solution 100% fit to requirements
- 92% corrugated, 8% plastics – all material can be disposed homogeneous
- Simple extraction of parts from packaging at the car production line
- Optimal packaging units for all ways of transport
- No costs for returning empties
- Total cost saving 900 K€



Contact us for more information

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