FutureBridge

CAPABILITY SHOWCASE

Packaging Operations

Industrial Business Deck

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01 Market Overview

Packaging Landscape: A 360º view of the packaging ecosystem

Formats

Primary

Rigid
Bottles, Jars, Cans, Tubs, Vials

Semi-Rigid
Cups, Trays, Clamshells, Blisters, Cartons

Flexible
Pouches, Sachets, Bags, Wraps, Lidding Films

Secondary

Cartons & Trays
Multipacks, wraparounds, Trays, Shelf-ready packs

Banding & Wrapping Solutions
Paper bands, Paper straps, Paper sleeves, Shrink Films, Stretch Films

Alternative Carriers & Bundling
Glue-bond multipacks, Clip-style, collar carriers, Bottle clip carriers

Tertiary

Shipping Containers
Corrugated cases, Pallet boxes, Crates, Drums, Returnable

Load Platforms
Pallets, Skids, Slip sheets, Pallet collars, Roll cages

Protective & Dunnage
Dividers, Inserts, Cushioning, Void fill, Blocking and bracing

Automation

Line Feeding
Depalletizer, Unscramblers, infeed, robotic handling, bulk feeding systems

Changeovers
Automatic changeover, Quick-change tooling, recipe management

End-of-Line & Intralogistics
Case Packers, Palletizers , AMRs, Strapping & Banding, ASRS'

Materials

Plastic
(PET, HDPE, LDPE, PP, PVC, PS, Others)

Paper & Board
(Kraft paper, recycled board, corrugated board,

Metal
(Aluminium, Steel)

Glass
(Flint, amber, green glass)

Wood
(Timber, plywood, engineered wood)

Textiles / Woven
(Flint, amber, green glass)

Protective Materials
(Timber, plywood, engineered wood)

Processes

Blow Molding

Thermoforming

Form-Fill Seal

Metal & Glass Forming

Sealing & closing

Sterilization / Aseptic

Cartoning & Bundling

Palletization, Wrapping

Printing

Prepress, Artwork and Label Management

Digital Printing

Hybrid Printing

Direct-to-Pack Printing

Coding, Marking & Serialization

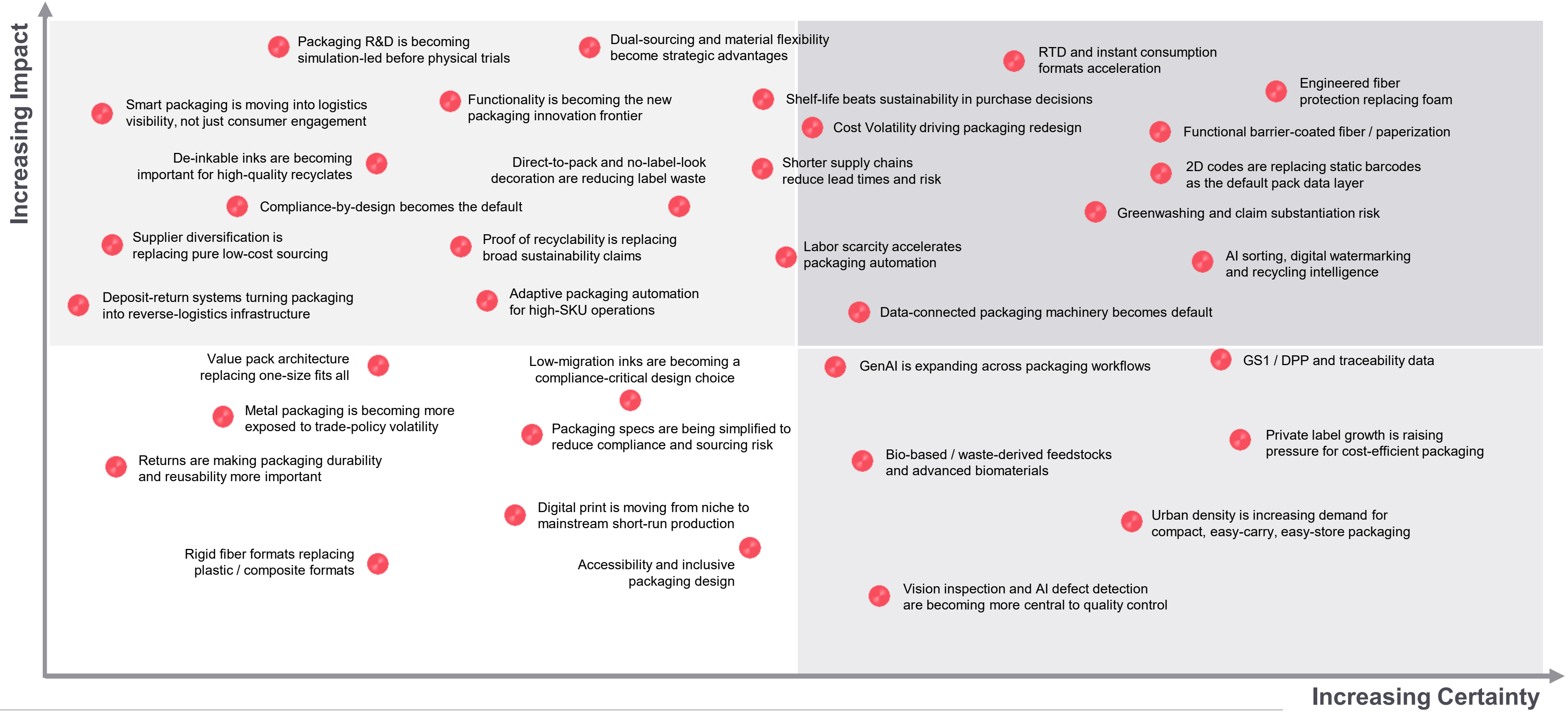
Specialty & Compliant Ink Systems

Traceability and Anti-counterfeit

Print Inspection & Verification

Major trends/developments influencing the industry

Major trends from innovation in packaging design to consumer trends that are shaping the packaging industry



Megatrends driving the packaging industry

Industry Megatrends

Packaging is no longer just being redesigned for sustainability; it is being redesigned for cost, compliance, resilience, automation and channel performance

- Regulation-driven recycled-content and recyclability requirements reshape material choices
- Packaging is being redesigned to protect price points and margins
- Growth of RTDs and instant consumption formats driven by convenience and on-the-go consumption
- Packaging supply chains are regionalizing, and dual-sourcing is replacing lowest-cost sourcing
- Substitution of plastic with paper-based materials across primary and secondary packaging
- Labor scarcity and SKU complexity are pushing packaging operations toward automation
- Packaging design is shifting from sustainability claims to proof, documentation and recyclability evidence

Industry is transitioning from a fragmented, linear value chain to a tightly interconnected ecosystem driven by collaboration, circularity, and system-level integration

Collaboration is becoming the default operating model

- Increasing joint development across brand owners, OEMs, converters, and material players
- Brands partnering with **startups and recyclers for circular solutions**

Emergence of "Packaging Integrators" / Solution Aggregators

- Players providing end-to-end packaging solutions (design + sourcing + logistics + distribution)
- Acting as bridge between brand owners, converters, and suppliers

OEMs Expanding upstream & downstream

- OEMs are moving beyond machinery into digital solutions, recycling systems, and process engineering

Startups & adjacent players entering the ecosystem

- Innovation is increasingly coming from outside the traditional packaging ecosystem.
- Sustainability accelerators funding packaging startups and circular solutions

Shift toward flexible, modular, and distributed production

- Modular equipment and flexible production cells are enabling faster response to changing materials, formats, and SKUs
- Regionalized packaging and fulfillment networks are emerging to reduce lead times, logistics risk, and inventory pressure

The industry is trying to transform materials, formats, and systems simultaneously without breaking cost structures or operational reliability

Material Suppliers

- Scale next-generation material platforms
- Improve performance and processability
- Balance cost, compliance and supply

Recycling / Circular Integration

- Improve sorting and material recovery
- Scale high-quality secondary feedstocks
- Enable reuse, refill and reconditioning

Distributors / Solution Integrators

- Strengthen sourcing and supply resilience
- Integrate end-to-end packaging solutions
- Improve speed-to-market and support

Packaging Converters

- Enable short runs and customization
- Accelerate automated changeovers
- Convert new materials without runnability loss

Machinery OEMS

- Process diverse materials and formats
- Enable fast, tool-less changeovers
- Integrate robotics, AI and connectivity

Brand Owners / Retailers

- Enhance convenience and differentiation
- Optimize omnichannel pack performance
- Reduce total packaging-system cost

02 Challenges and Opportunities

Key challenges for industry players

Major brands are aligning packaging objectives with sustainability, recycled content, automation, digitalization, and late-stage customization needs

Flexible packaging remains the industry’s unresolved circularity knot

SKU proliferation is turning flexibility into a margin problem

Smart packaging still searching for hard ROI outside high-risk use cases

Sustainable substrates are harder to run consistently at industrial speed

Cost premiums are slowing the shift from sustainable pilots to scaled rollouts

High impact opportunity areas

Digital twin & AI layer for lines

Full-line digital twins, AI-driven process optimization and predictive maintenance platforms

Standardize pack components across SKU families

Rationalize closures, trays, cartons, labels, films, case sizes and secondary packs across product families.

Design for logistics optimization

Packaging redesign for pallet density, transport efficiency, and warehouse automation

Automate case sizing and secondary packaging selection

Use product dimensions, fragility data and order configuration to select the right case, mailer, void fill or no-added-box option

Material-to-line qualification services

Build material-to-line qualification services that validate sustainable materials under real production conditions before scale-up

Modular automation retrofits for existing lines

Upgrade brownfield lines with AI vision, cobots, sensors, assisted setup, case packing, and palletizing modules

Multi-material design capabilities

Design solutions that work across virgin PET, rPET and bio-based materials

Plug-and play packaging ecosystems

Modular lines that integrate third-party components and digital layers

03 FutureBridge Experience

How can FutureBridge help?

Support clients in navigating the future of packaging by identifying opportunities across AI-enabled operations, connected packaging, circular materials, automation, customization, traceability, and resilient supply chains.

Innovation / Solution / Technology Scouting

Identify and evaluate technologies, solution providers, startups, OEMs and partners across packaging materials, formats, automation and digital layers.

Future Roadmaps & Future of X

Develop practical roadmaps showing how packaging technologies may evolve and where adoption should occur.

Customer Analysis & VoC

Identify customer needs, decision criteria, pain points and adoption barriers through stakeholder interviews, surveys and secondary research across target segments and value-chain participants.

Market and Competitive Analysis

Assess market size, growth drivers, demand pockets, competitive intensity, key players, offerings, pricing, differentiation and white-space opportunities across relevant geographies and applications.

Strategy (Positioning, GTM)

Define target segments, value proposition, positioning, entry routes, channel strategy, pricing logic and go-to-market priorities to support commercial launch or expansion decisions

M&A & Partner Identification

Identify and evaluate acquisition targets, technology partners, suppliers, distributors, OEMs and ecosystem players based on strategic fit, capabilities, market access and partnership potential

Mobility & Industrial Business Leadership Team

Ankur Vohra

Practice Head
Mobility & Industrial Business,

Business consulting and advisory leader with nearly three decades of experience, driving strategy and innovation for global mobility and industrial manufacturing organizations.

Arvind Sawarkar

Senior Director
Mobility & Industrial Business,

More than two decades across mobility and industrial tech. supporting global leaders decode disruption, fast-track innovation, and unlock next-gen growth.

Tanay Choure

Director
Mobility & Industrial Business,

Almost two decades of domain expertise in mobility consulting, enabling global leaders to navigate disruption, accelerate innovation, and unlock future growth opportunities.

FutureBridge is a techno-commercial consulting and advisory company. We track and advise on the future of industries from a 1-to-25-year perspective.

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