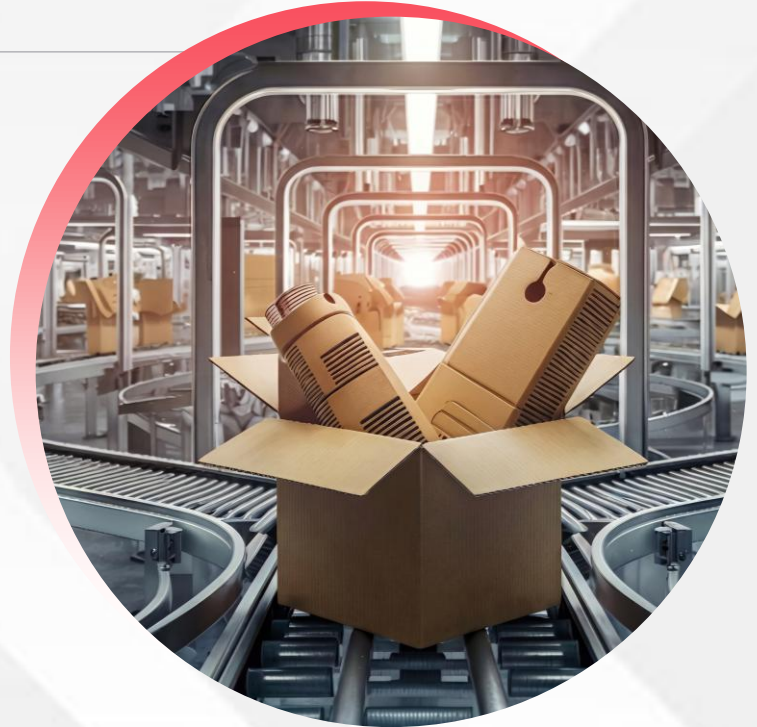


FutureBridge

FORESIGHT

The Future of Packaging Industry

A 2030 Outlook



KEY INSIGHTS

CIRCULARITY, SUSTAINABILITY CLAIMS & COLLECTION



- Generic & loose claims around sustainability will be penalized
- Reuse, refill & return programs will grow only where the system is controlled; such as campuses, stadiums, offices, closed foodservice networks
- Packaging inks, labels and adhesives will come under scrutiny, as sustainability will not be judged only by the main material
- Beauty retailers, pharmacies and grocery chains will play a bigger role in packaging waste collection

1



MATERIAL & PACK FORMAT TRANSFORMATION



- Coating & barrier technologies will enable paper to enter difficult applications like greasy, wet, frozen or shelf stable products
- Single material films will replace ~10% of the current multilayer flexible laminate demand by 2028, as multi / many layer packs are difficult to recycle
- PFAS-free food packaging demand will be met by water, mineral and plant-based coatings
- Healthcare packaging will not shift quickly because of safety and validation, but recyclable formats will gain attention
- Personal care packaging will see more refillable and mono-material designs, with the goal to reduce waste without making the pack feel cheap
- Glass will become lighter and aluminum will enter more premium formats like water, spirits, hospitality packs and refill cartridges

2



DIGITAL INFORMATION, AUTHENTICATION & LABEL SYSTEMS



- Barcodes will be phased out as QR & 2D codes carry more digital information
- Traditional anti-counterfeiting measures will be replaced by integrated authentication features
- Linerless labels will dominate high-volume applications, while wash-off adhesives become crucial for recyclable packs

3



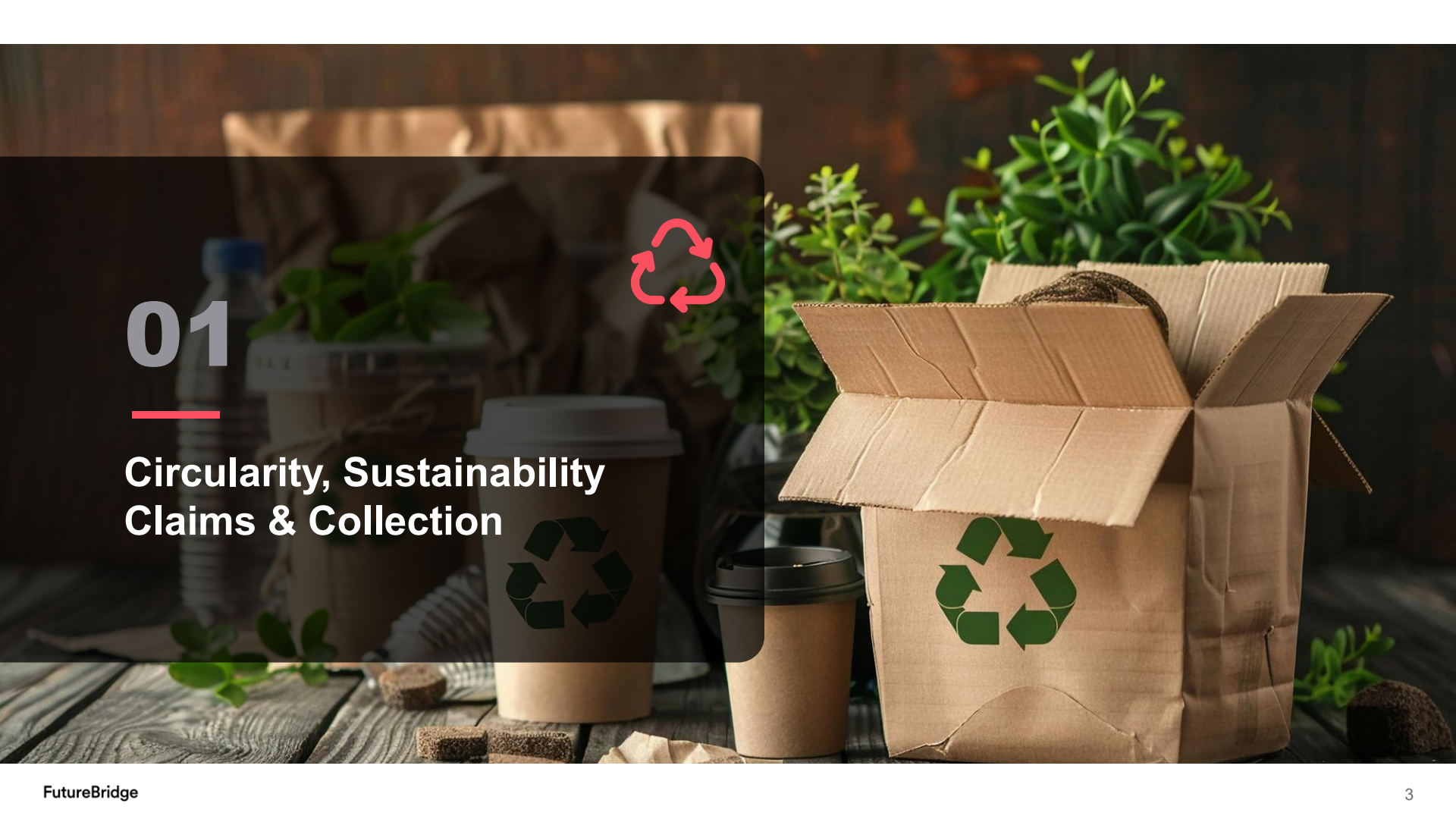
PACKAGING & PRINTING OPERATIONS



- Right sizing will be a norm in E-commerce to save packaging costs
- Hybrid printing will become the industry standard as converters will retrofit digital modules onto existing analogue presses
- Printing will shift to filling, packing and dispatch sites; where final product and order information is already known
- Direct-to-box printing will displace adhesive labels across e-commerce, logistics and warehouse operations

4



The background image shows a collection of sustainable packaging items on a dark wooden surface. In the foreground, there is a brown cardboard box with its flaps open, featuring a green recycling symbol. Next to it is a brown paper coffee cup with a black lid. Behind the cup is another similar cup, and further back is a brown paper bag. A small green plant is visible in the background. A semi-transparent dark grey rectangle is overlaid on the left side of the image, containing the text '01' and 'Circularity, Sustainability Claims & Collection'.

01

Circularity, Sustainability Claims & Collection





Generic & loose claims around sustainability will be penalized

Companies will need to prove that packs can be collected, sorted and recycled in the market where it is sold. Claims such as “eco-friendly,” “green,” “plastic-free” or “compostable” will face more scrutiny.



Reuse, refill & return programs will grow only where the system is controlled; such as campuses, stadiums, offices, closed foodservice networks

Broad consumer reuse will remain harder because collection, cleaning and return behavior will be difficult to manage.



Packaging inks, labels and adhesives will come under scrutiny, as sustainability will not be judged only by the main material

Labels, inks, coatings and adhesives will need to support recycling and avoid problematic chemicals. Under EU PPWR, all packaging must be recyclable by 2030 including labels, adhesives and other components



Beauty retailers, pharmacies and grocery chains will play a bigger role in packaging waste collection

Collection points for packs that are too small or too complex for normal household recycling; such as pumps, compacts, mascara packs, blisters and soft plastics will start popping up



02

Material & Pack Format Transformation





Coating & barrier technologies will enable paper to enter difficult applications like greasy, wet, frozen or shelf stable products

Paper will not be limited to dry food or outer packaging; the key challenge will be making paper resist moisture, oil and oxygen without adding materials that make it hard to recycle.



Single material films will replace ~10% of the current multilayer flexible laminate demand by 2028, as multi / many layer packs are difficult to recycle

Brands will test mono PE, mono PP and other single material films for food, personal care and household products.



PFAS-free food packaging demand will be met by water, mineral and plant-based coatings

Foodservice packs, paper bowls, wraps, trays & takeaway formats will move away from PFAS-based grease barriers. Suppliers will push water, mineral & plant coatings as safer alternatives.



Healthcare packing will not shift quickly because of safety and validation, but recyclable formats will gain attention

Recyclable trays, paper-based protective packs, mono-material blister alternatives and take-back systems will gain more interest.



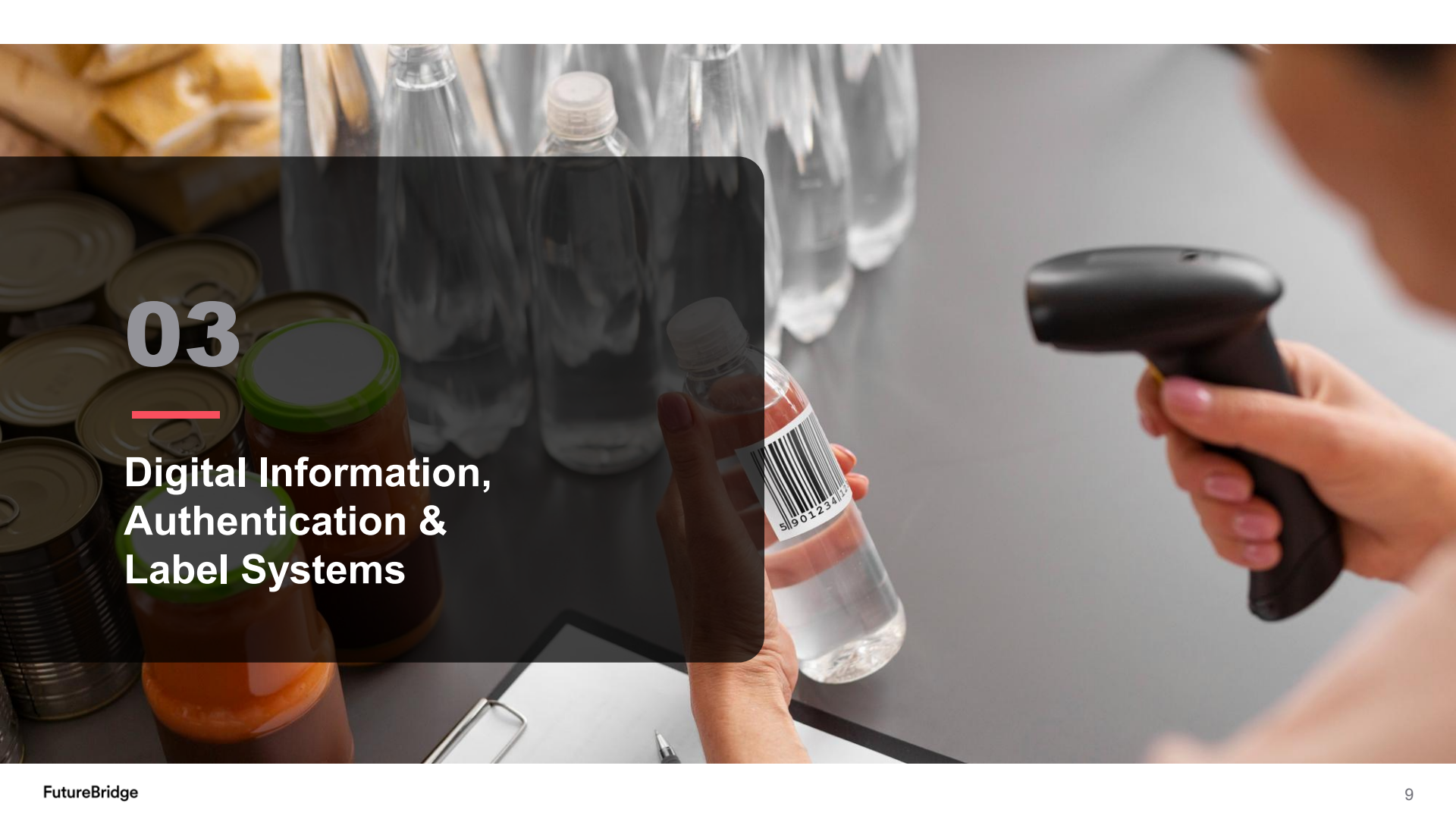
Personal care packaging will see more refillable and mono-material designs, with the goal to reduce waste without making the pack feel cheap

Brands will test more refill cups, cartridges, durable outer packs, all-plastic pumps, recyclable dispensers and packs using PCR or bio-derived materials.



Glass will become lighter and aluminum will enter more premium formats like water, spirits, hospitality packs and refill cartridges

Glass will face pressure because it is heavy, even though it is recyclable. Brands will look at lightweight glass. Aluminum will enter premium formats as it is light, recyclable and premium-looking.



03

Digital Information, Authentication & Label Systems



Bar codes will be phased out in retail as packaging will carry more digital information through QR & 2D codes; Customers will use them for

QR & 2D codes will carry product details, recycling instructions, expiry information, batch data, recall information and compliance data. This will be relevant for food, pharma, beauty and high-value consumer products.



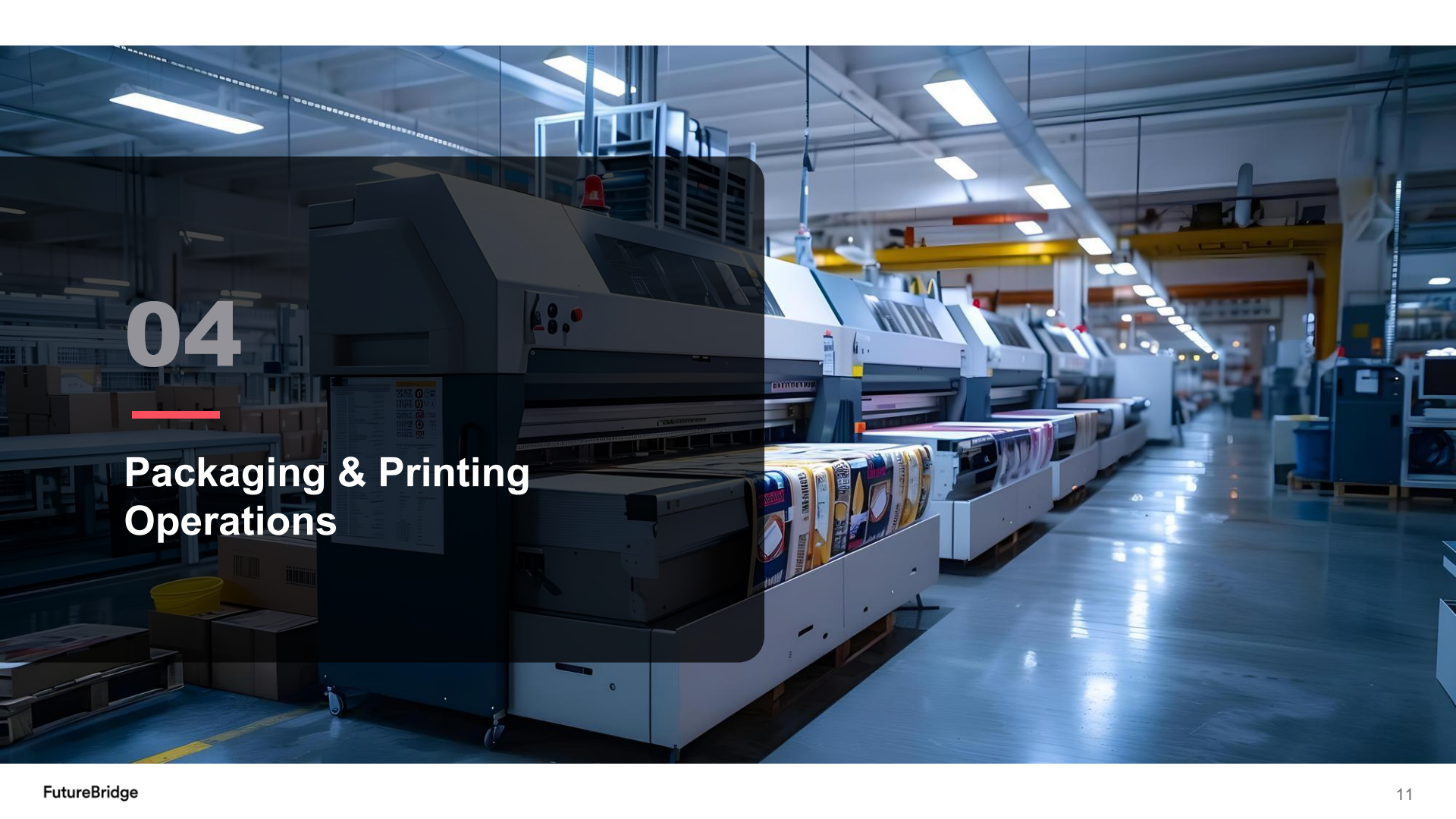
Traditional anti-counterfeiting measures will become redundant; replaced by features like invisible marks, special varnishes, QR codes, NFC or material-level authentication

Bulky holograms or extra labels will start to disappear. This will matter most in pharma, beauty, spirits and e-commerce.



Linerless labels will dominate high volume logistics and food applications; while wash-off adhesives will become crucial for recyclable PET and HDPE packs

Linerless systems will reduce silicone backing waste and roll changes. Wash-off and floatable label systems will help labels separate during recycling instead of contaminating clear PET or HDPE material streams



04

Packaging & Printing Operations



Right sizing will be a norm in E-commerce to save packaging costs

Companies will reduce oversized boxes and excess void fill. Automated right-sizing machines will become more attractive as they reduce material use, shipping volume and future packaging-fee exposure.



Hybrid printing will become the industry standard as converters will retrofit digital modules onto existing analogue presses

The analogue press will continue producing high-volume base designs, while the digital module adds regional artwork, QR codes, Braille, promotional content and variable information.



Printing will shift to filling, packing and dispatch sites; where final product and order information is already known

Batch numbers, expiry dates, destinations, customer details, promotional messages and traceability codes will be printed closer to shipment. Packaging plants will hold fewer pre-printed variants and respond faster to product or market changes.



Direct-to-box printing will displace adhesive labels across e-commerce, logistics and warehouse operations

Addresses, barcodes, handling instructions, branding and return information will be printed directly onto the box. This will remove label stock, silicone release liners and label-application steps while reducing waste from unused or outdated labels.



Meet the minds behind the insights



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