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Basic requirements for takeaway packaging and its value chain

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In this lesson you will learn about

- Basic requirements and challenges in takeaway packaging
- Factors influencing choice of takeaway packaging materials

**Takeaway food
is a new concept for
dining restaurants**

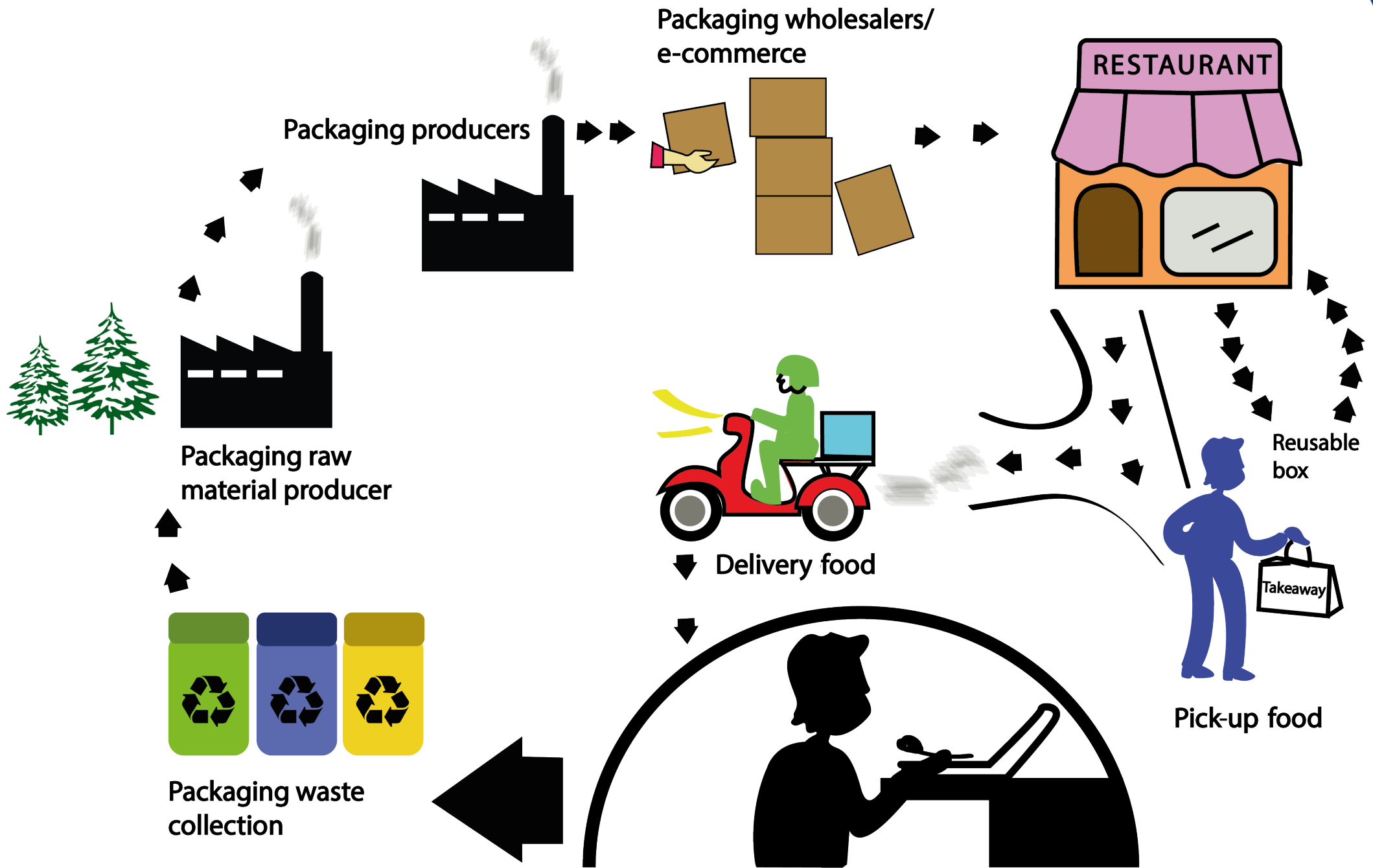
Takeaway restaurant food

- Pandemic changed consumer habits permanently
 - Remote work → lunch ordered out and eaten at home
 - Ordering restaurant food for home delivery → new eating out
- In addition to traditional fast food, dining and casual dining takeaway food is estimated to have created 30%-50% of new business for restaurants with over 20% of annual growth





Dining / Casual dining takeaway packaging value chain



Restaurant kitchen

- Small space, designed to serve tables at the restaurant itself
- No dedicated space for packing food
- No time for packing
- No space to store packaging



Dining/ Casual dining takeaway packaging value chain - Cloud Kitchen



Cloud kitchen / Food court

- New business model solving take-away restaurant food production problems
- Large well-equipped catering kitchen serving several restaurants and often also having its own restaurant brand food production
- No eating-in
- Locations close to consumers, covering certain geographic areas
- Food cooked and delivered under restaurants' own brands, and cooking run and managed by restaurants' own dedicated chefs
- Consumers' orders digitally placed to restaurant is automatically directed to cloud kitchen
- Deliveries by delivery companies only



Challenges of takeaway food packaging



Consumer experience



Takeaway food packaging headaches

- Food safety
 - Foreign objects end up into food during transport
 - Food contamination, microbes e.g. from used packaging raw material
- Food waste
 - Careless handling and spillage during transport
 - Spoilt food experience – mixed-up meal parts, due to poor packaging
- Packaging waste
 - Recycling infrastructure in different countries
 - Demand of recyclability/reusability – suitability to prevailing recycling infrastructure
 - Recycling instructions on the packaging

The right takeaway packaging choice/ Functionality

Functionality of packaging is of key importance throughout the takeaway food journey

- Restaurant - storage and packing / problem: no room
Packaging solution: **neat to store, quick and easy to fill**
- Delivery companies - food delivery from restaurant to consumer / problem: careless handling, waiting times
Packaging solution: **leak proof with good insulation properties**
- Consumer experience / problem: reality does not meet expectations
Packaging solution: **wow effect associated with restaurant brand**

A black litter bin with the word "LITTER" at the top is overflowing with discarded food and drink packaging. The trash includes white styrofoam containers, cardboard boxes, paper bags, plastic cups with straws, and aluminum trays. The scene is set on a city street with yellow double lines, and the lower legs and feet of pedestrians are visible in the background.

**Takeaway packaging –
climate change?**

EU directive – banning certain packaging materials

EPS / Styrofoam – earlier main raw material in take away fast food packaging

- Light
- Good insulation

Problems

- Difficult to collect
- Difficult to recycle



- Represents 30% of all landfill waste
- Takes 500 years to decompose



95% of takeaway packaging is not recycled or reused, but ends up in mixed waste and is burned

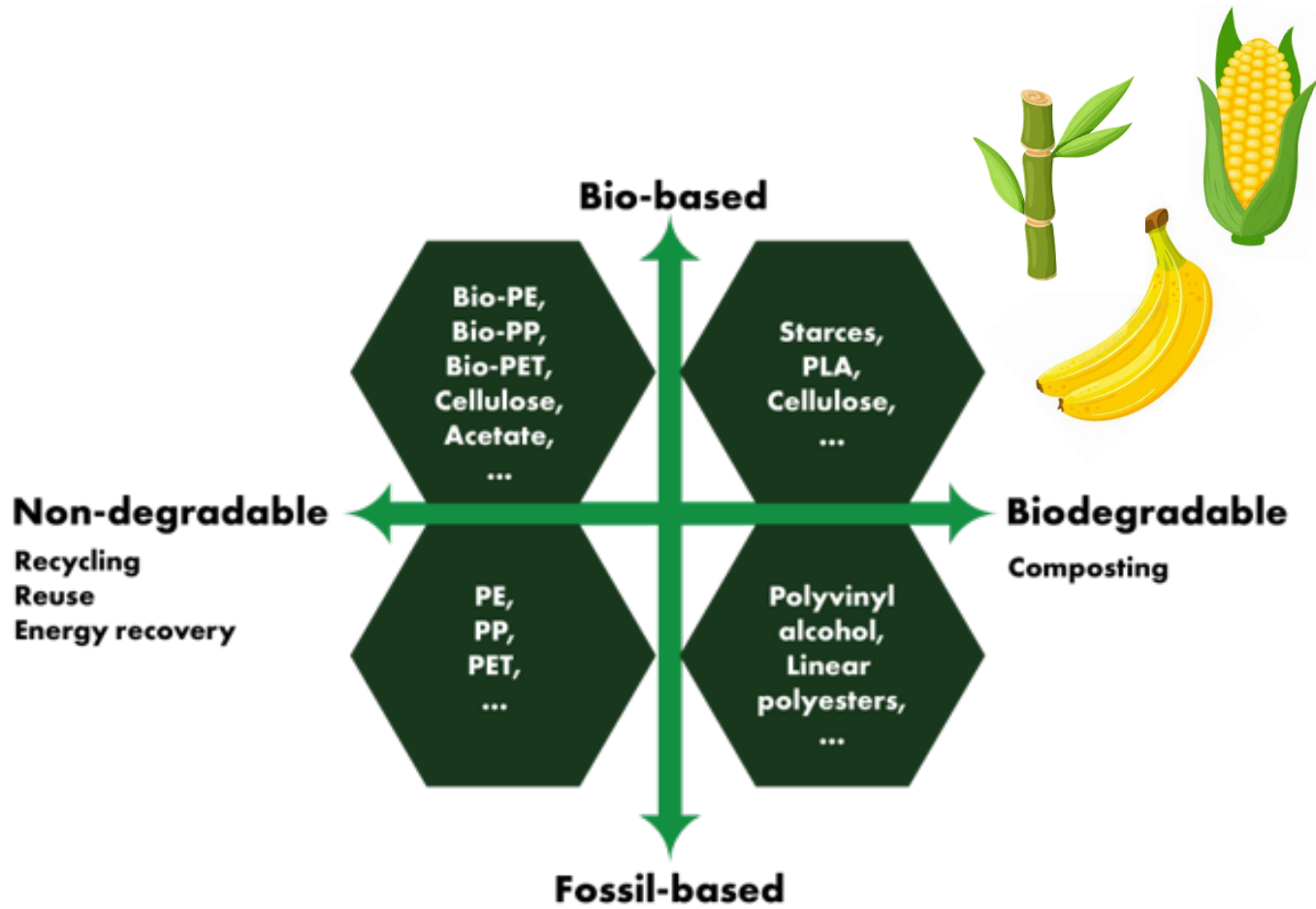
Reasons:

- Food leftovers and soaked packaging prevent recycling
- No separate-waste bins close by when eating outdoors
- Reluctance to sort, question of convenience



Importance of choice for used raw material: renewable / compostable





PE: Polyethylene, PLA: Polylactic acid, PP: Polypropylene, PET: Polyethylene terephthalate

Foot print
of plastic
packaging



Right take-away packaging choice / Sustainability



Carefully chosen, certified packaging raw materials in use

- Renewable sources
- Recyclability after use

Certified packaging producers

- Certified production conditions
- Social responsibility

Credibility of sustainability?

'ECO-packaging' sold in e-commerce

- Renewable sources?
- Material content? Certifications?
- Recyclable?
- No content of harmful ingredients?

Takeaway packaging alternatives



Bagasse, sugar cane based materials: renewable, recyclable – poor liquid barrier



Plastic packaging: fossil-based, non-renewable raw material, recyclable, excellent functional properties



Wood fibre-based materials: renewable, recyclable – need a grease/water barrier lining



Formed wood fibre materials



- One of the latest packaging raw-material developments based on wood fibre foam
- Renewable
- Recyclable

Wood fibre materials with removable water/grease plastic lining



Plastic packaging / reusable

- Reusable packaging used for less than 10% of all takeaway packaging
- Works best in closed surroundings, e.g., university campus restaurants
- Use expected to increase in future



Consumer experience



https://www.youtube.com/watch?v=GkXqCla87aI&t=11s&ab_channel=PackageTesting%26Research

Key takeaways

- Choice of ecological packaging based on proven, reliable sustainability and social responsibility
- Recycling / reuse of packaging to be considered and noted renewable materials to be preferred
- Food safety and food waste minimization not to be compromised by 'high degree of sustainability' of packaging
- Skilfully designed take-away packaging with carefully made raw material choices guarantees a great consumer experience





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