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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

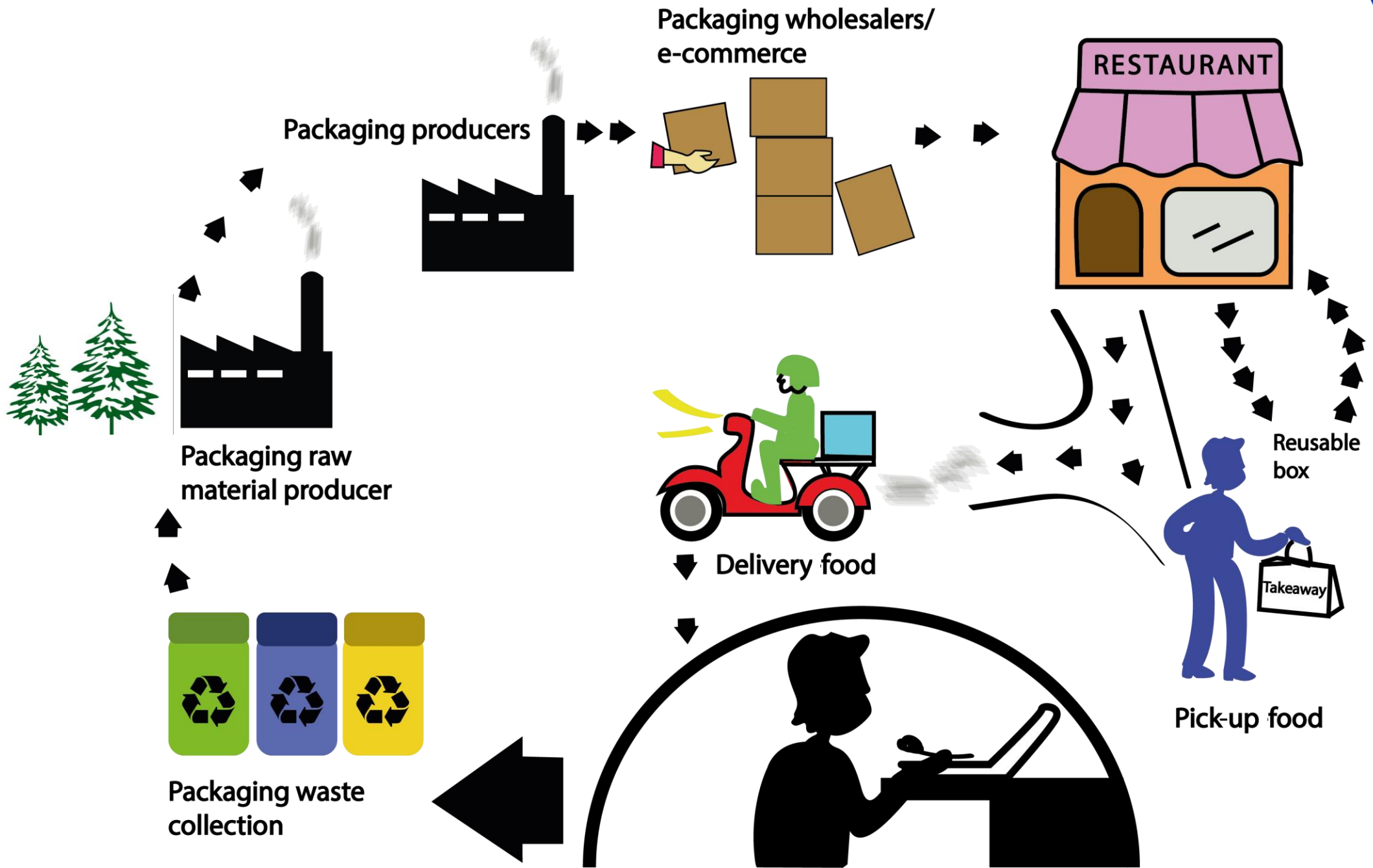
- Pandemic changed consumer habits permanently
  - Remote work → lunch ordered out and eaten at home
  - Ordering restaurant food for home delivery → new eating out
- In addition to traditional fast food, dining and casual dining takeaway food is estimated to have created 30%-50% of new business for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



Photo by SOCIAL.CUT on Unsplash



# 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 with liaison to~~ **associated with restaurant brand**

A black litter bin with the word "LITTER" at the top and a yellow sign with a silhouette of two people walking. The bin is overflowing with discarded food and drink packaging, including white styrofoam containers, cardboard boxes, plastic cups, and paper bags. The trash is piled up on the sidewalk and street. In the background, the lower legs and feet of several people are visible, suggesting a busy urban environment.

**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

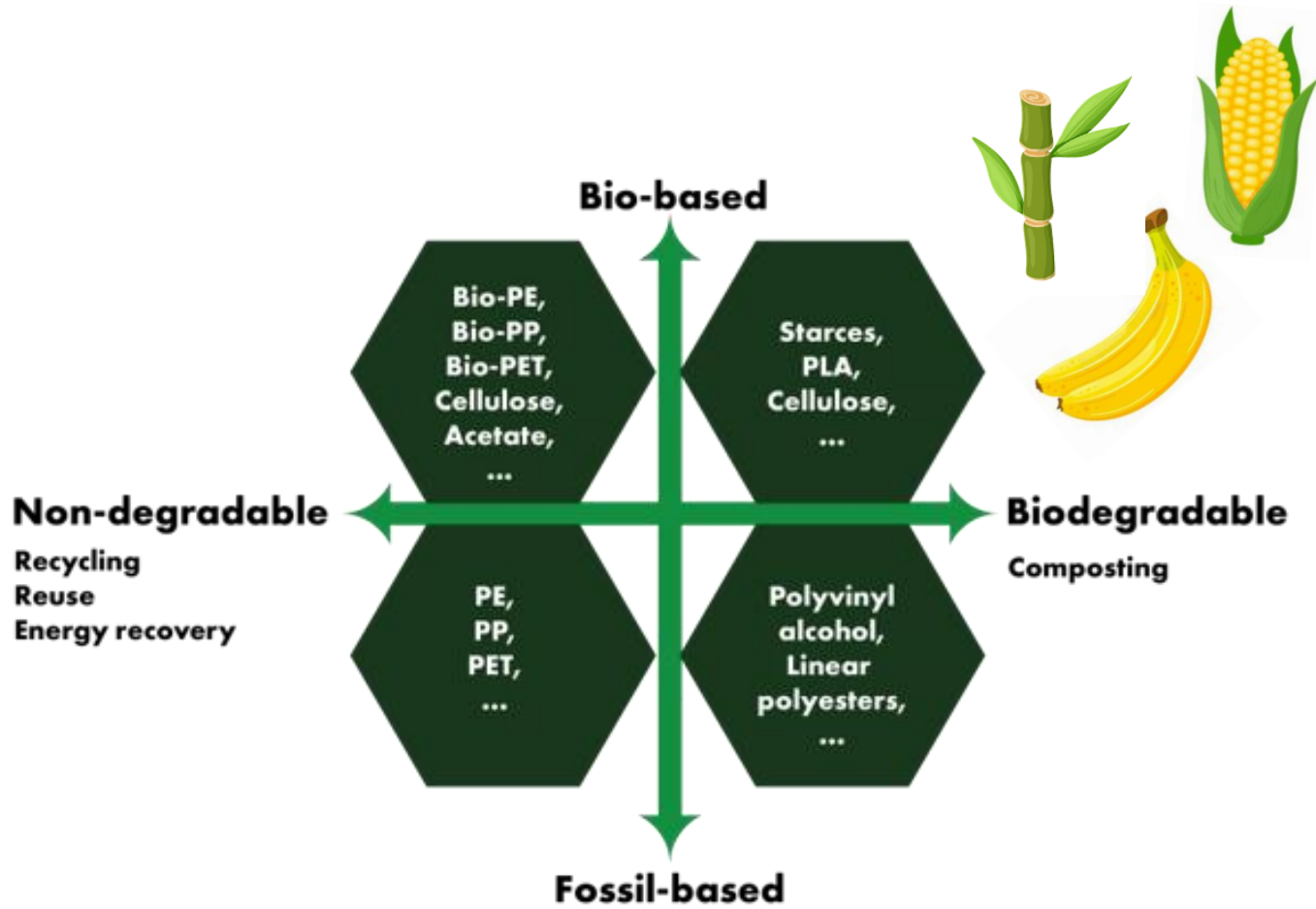
Reasons:

- 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





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



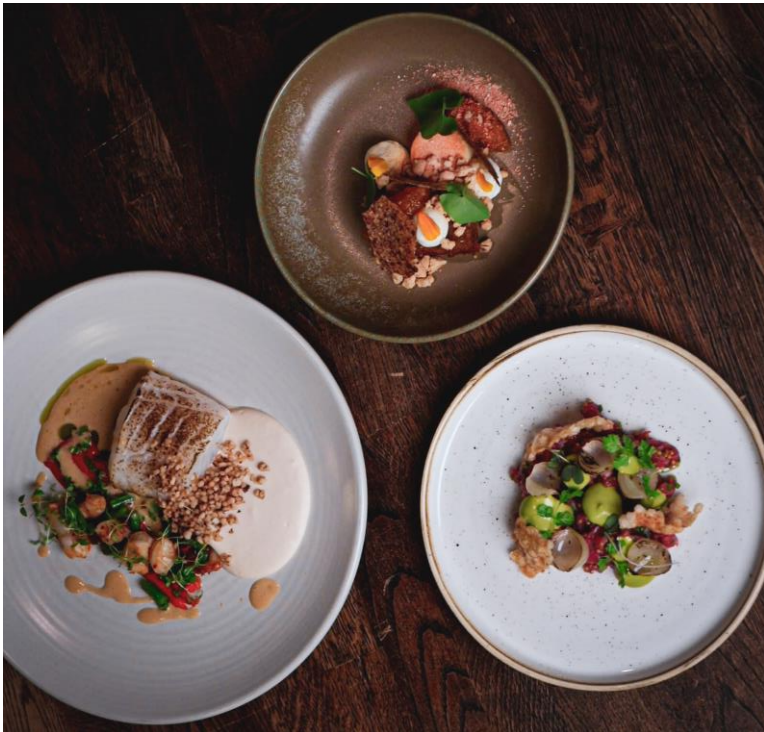
<https://jospak.com/>

# 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](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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