



# Accelerating the Design of Recyclable Packaging

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Contamination

Confusion



# Other Drivers for Recyclable Design

1. Circular Plastics Alliance
2. EMF Plastics Pacts
3. New Plastics Economy Global Commitment
4. Reducing EPR liabilities
5. Being a circular economy leader

# PREP Simulation of this...



Collection



Materials Recovery Facility



Paper Mill



Aluminium Smelter



Steel Smelter



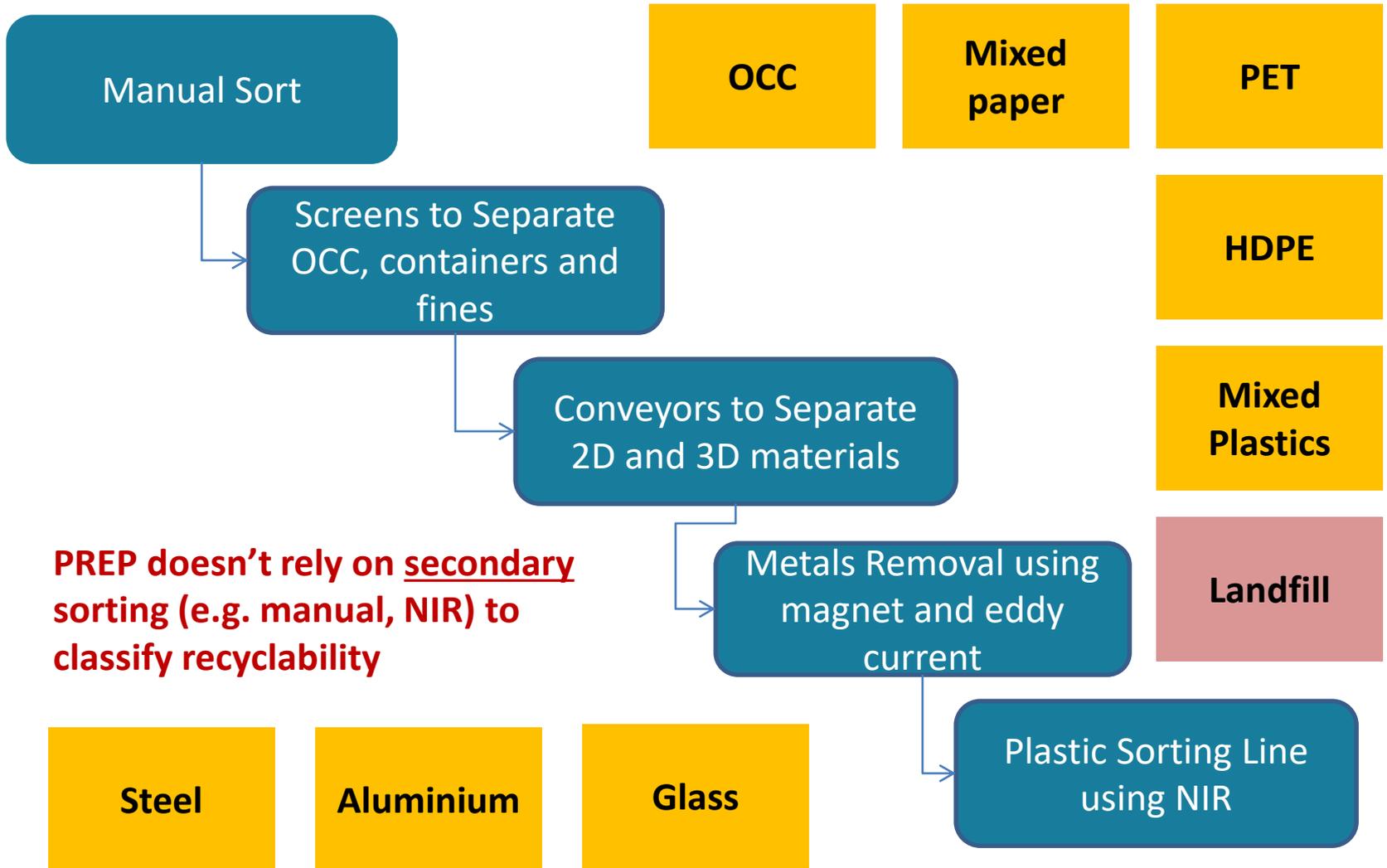
Glass Beneficiation



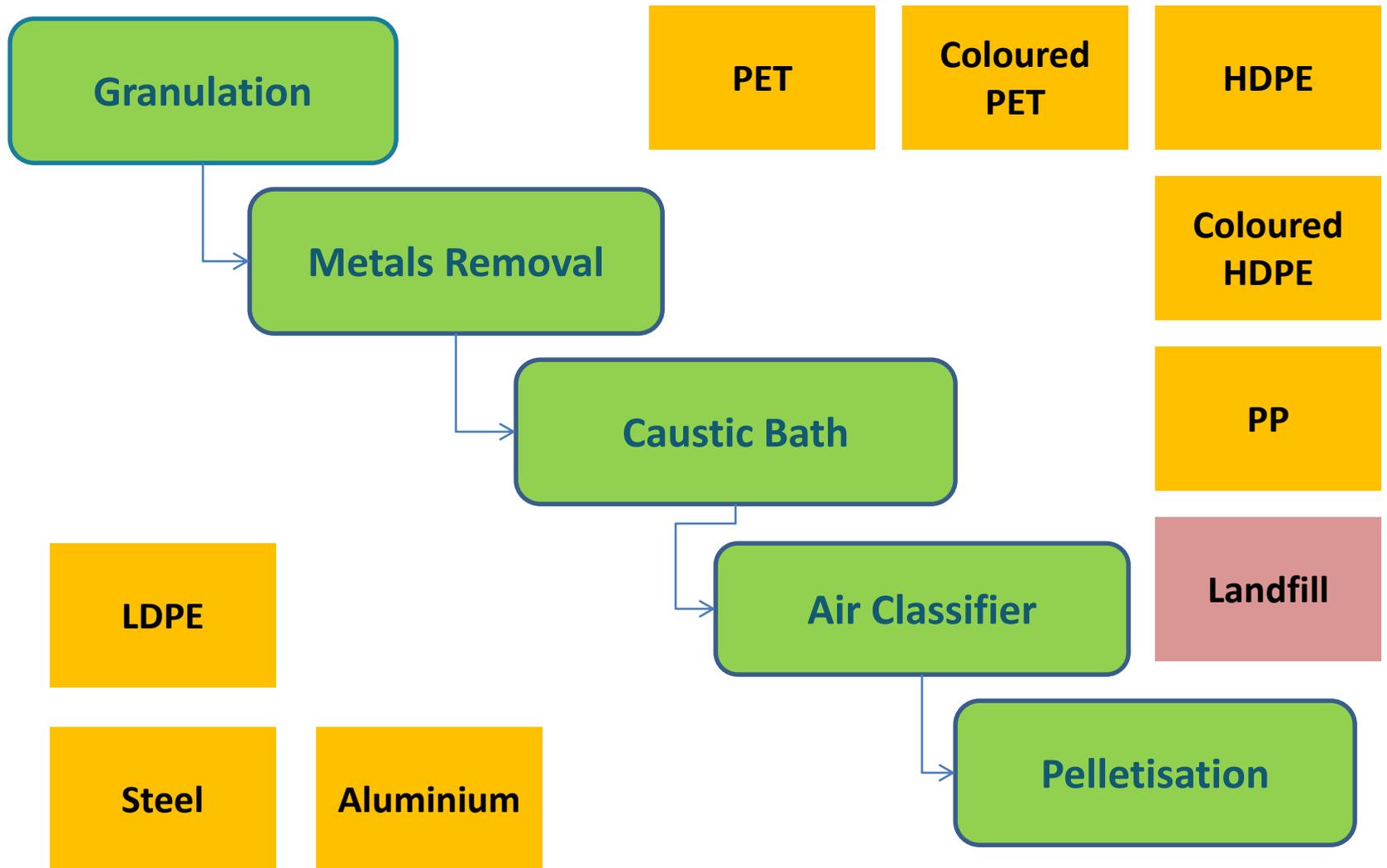
Plastics Processing

RECYCLATE MARKETS

# Virtual MRF



# Virtual PRF (Plastic Recycling Facility)



# Market Coverage

PREP is tailored for each nation/region:

- 2014 – Australia
- 2016 – New Zealand
- 2018 – United Kingdom
- 2019 – Singapore (currently being setup)

# Approach to PREP Classification

- ‘Recyclable’ – as per ISO14021\*:
  1. Collection access levels
  2. Sortation/Technical recyclability
  3. Available markets
- PREP algorithms refer to Parameters (**P**) and thresholds (**T**) set by each nation/region e.g.
  - P** = How small is too small for a plastic item?
  - T** = < 50mm in 3 dimensions

\* ISO14021, Environmental labels and declarations — Self-declared environmental claims  
(Type II environmental labelling)

# Technical Recyclability

There are three potential PREP results for the technical recyclability of each component:

- 1. Technically Recyclable**
- 2. Technically Recyclable with Lost Value**
- 3. Not Technically recyclable**

1. & 2. used to define Recyclability on-pack and structure allows EPR schemes to be more granular and use a standardised framework

# Governance for Australia

- Technical Advisory Committee (TAC) includes brands, recyclers, Government. 3 sub-committees:
  - Plastics;
  - Paper; and
  - Metals and glass.
- TAC approves changes and data updates
- TAC responds to user appeals

# Evidence for On-Pack Labels

## Australasia + Singapore



## United Kingdom



## Non-English (Concept)



# PREP Data Requirements

Type	Examples	Source
Fixed	Specific gravity of PET Magnetic properties of steel	Physics
Semi-Fixed	Screen sizes at MRF Allowable limits on contaminants Proxy methods of assessment	MRFs Industry guides Laboratory checks
Variable	% of population covered by collections	Government data

# Thank You

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