

EU Instruments for Plastics Recycling and use of Recyclates: Now and Into the Future

Dialogforum Kreislaufwirtschaft

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Contents

- **Intro to Eunomia**
- **The recent past**
- **The big picture**
- **The near future**

About Eunomia



A policy, strategy and implementation consultancy, we are led by our purpose of helping to transform our clients' environmental and economic outcomes for the better



We are market experts in systemic change in material and energy resource efficiency, working at the highest level of professional competence to meet our clients' needs



Our work is global in scope with 100+ circular economy and sustainability specialists working on projects on six continents from bases in the UK, Brussels, Athens, New York and Auckland



Eunomia Sectors and Selected Clients

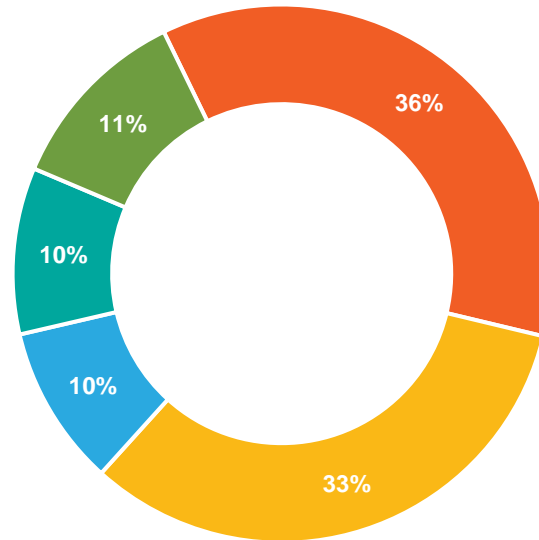
National, Regional, Government



Local Government



Supranational Government



Private Sector



Non-Governmental Organisations





**Plastics are
incredible materials**

**But their potential
for persistence in the
environment is now
the cause of a major
consumer, media and
political backlash**

PLASTICS IN THE MARINE ENVIRONMENT: WHERE DO THEY COME FROM? WHERE DO THEY GO?



*Peak concentration found in North Pacific gyre. Average concentration globally is <1kg per km²

Top Polluting Brands

2019 Top 5 Global Polluters: Coca-Cola, Nestlé, PepsiCo, Mondelez International, and Unilever.



NGO and mainstream media campaigns are increasingly targeting brands and retailers, driving extensive voluntary commitments

Citizen Attitudes to Plastic and Consumption

Sustainability statements that could positively influence purchase

| PACKAGING STATEMENT (found on existing FMCG products) | | | | | |
|--|-----|-----|-----|-----|-----|
| Compostable packaging | 46% | 50% | 44% | 54% | 45% |
| Packaging made of recycled materials | 37% | 35% | 40% | 39% | 43% |
| Packaging made from renewable resources | 31% | 34% | 20% | 33% | 25% |
| Eco-friendly packaging | 24% | 28% | 28% | 33% | 38% |
| Reduced impact on climate change | 22% | 18% | 16% | 13% | 28% |
| Bio-based / bio-sourced packaging | 22% | 15% | 27% | 18% | 22% |
| Less plastic (eg. "30% less plastic") | 19% | 17% | 20% | 26% | 22% |
| Sustainably-sourced packaging | 17% | 22% | 17% | 15% | 8% |
| Lower/Low carbon footprint packaging | 16% | 15% | 20% | 12% | 14% |
| CO2 reduced packaging | 10% | 14% | 11% | 9% | 6% |

KEY FINDING 6

PEOPLE WILL PAY MORE FOR MORE SUSTAINABLE PACKAGING

Europe



COMMANDING A PREMIUM

How much more will consumers pay for sustainability?



Willingness to pay more for more sustainable packaging

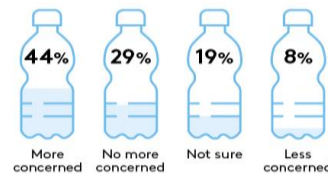
If your favorite food brand was offering a more sustainable packaging, would you be ready to pay 15% / 10% / 5% / 1% more for it? – in % of respondents
(Price examples were given in local currency)

| Don't want to pay more | 20% | 21% | 8% | 22% | 14% |
|------------------------|-----|-----|-----|-----|-----|
| Ready to pay 1% more | 80% | 79% | 92% | 87% | 86% |
| Ready to pay 5% more | 68% | 69% | 83% | 74% | 72% |
| Ready to pay 10% more | 52% | 55% | 68% | 55% | 57% |
| Ready to pay 15% more | 44% | 49% | 63% | 48% | 51% |

Plastic recycling – a real concern or a load of rubbish?

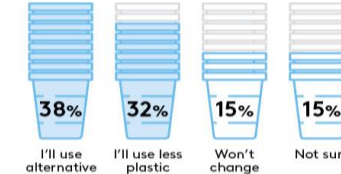
Global

People are becoming more concerned about single-use plastics...



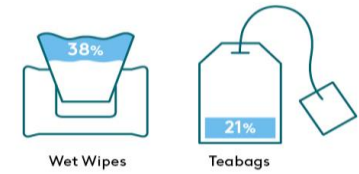
44% are more concerned

...with the majority of us planning to shop more sustainably



70% plan to switch or use less

...but more education is required on products containing plastic



Low awareness where plastic is included

...with plastic bags, fizzy drink bottles and straws most at risk of being replaced or used less



Top 3 items for those who will buy an alternative

Top 3 items for those who will reduce use

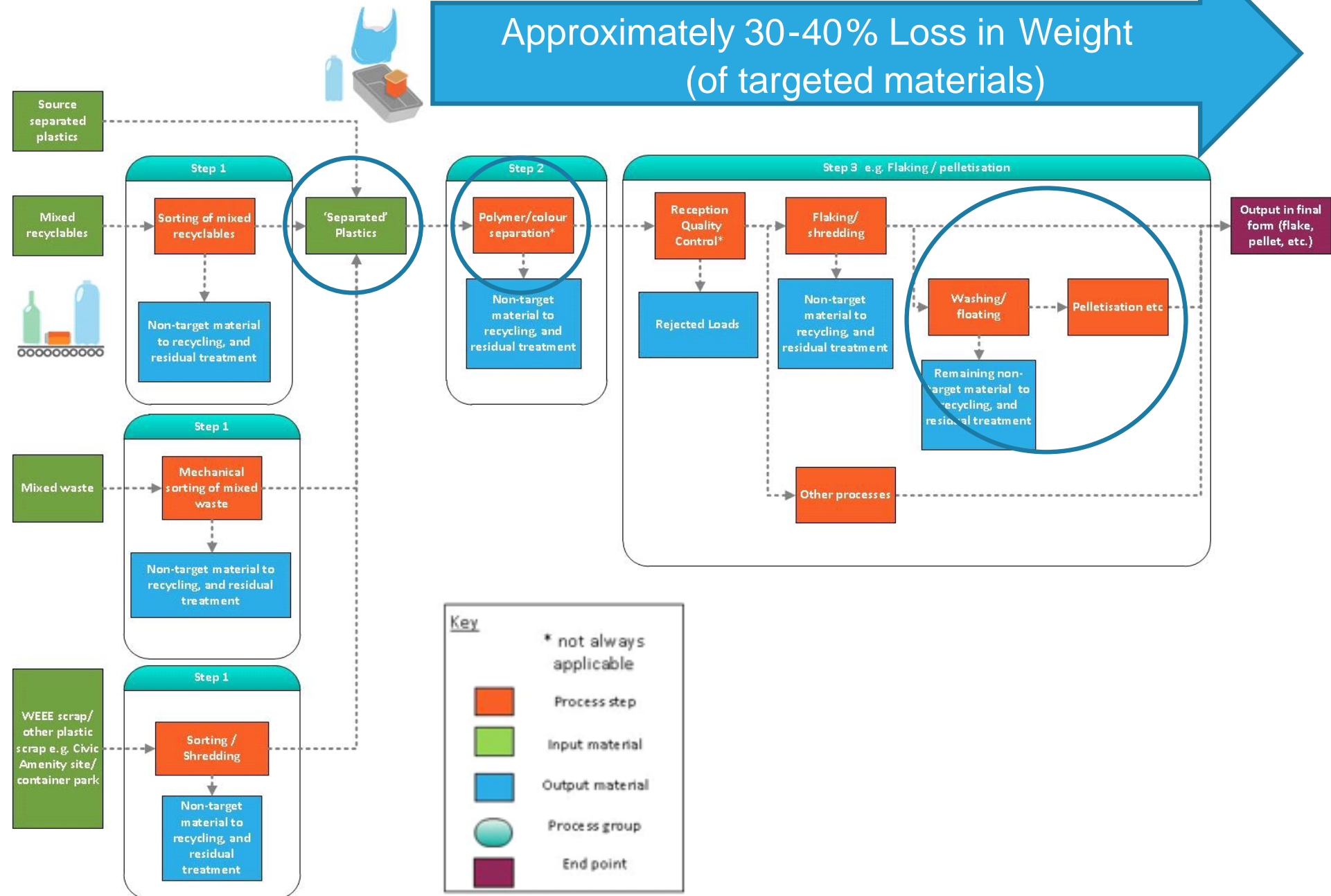
Source: KANTAR Worldpanel

Top 3 claims per country most likely to influence



EU Directive on Packaging and Packaging Waste

- New targets for plastic (and other) packaging
- Plastics: **up from 22.5% (2018) to 50% (2025); 55% (2030)**
- **New calculation method** as per WFD: metals from bottom ash included;
- **Requirement for fee modulation** as per WFD



Single Use Plastics Directive Measures

EU Directive on the reduction of the impact of certain plastic products on the environment (Article 6)

- **Separate collection of single-use plastic beverage containers:**
 - 77% by 2025;
 - 90% by 2029
- Recycled content:
 - 25% recycled content for all single-use PET beverage bottles by 2025
 - 30% recycled content for all single-use beverage bottles by 2030
- EPR costs extended to public waste collection and clean-up of litter

EPR Under Article 8 - Section I, Part E

- ◆ **Food containers**
- ◆ **Packets and wrappers**
- ◆ **Beverage containers**
- ◆ **Cups for beverages and lids**
- ◆ **Lightweight carrier bags**

Article 8(2)
Awareness raising (Art 10)
Public collection systems
Clean-up of litter

Costs of Collecting and Sorting Plastic Packaging which is Recycled via Separate Collection

Costs of Recycling Operation for Plastic Packaging from Separate Collection

Costs of Sorting and Recycling Packaging From Mixed Waste (to meet targets)

Costs of Providing Information to Waste Holders

Costs of Data Gathering and Reporting

Material Revenues / Unclaimed Deposits


Costs Associated with Awareness Raising e.g. littering and reusable alternatives

Costs of Collecting Packaging which is Littered

Costs of Treating or Disposing or Recycling of Packaging which is Littered

Costs of Collecting Plastic Packaging which is Not Separately Collected

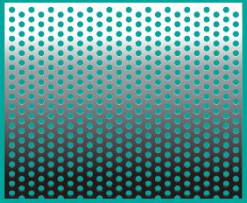
Costs of Treating or Disposing of Packaging which is Not Recycled

 = required under PPWD / WFD

 = required under SUP

 = permitted as per WFD Art 14

Iron & steel, aluminium,
and other metals



4.8 Gt

Cement, lime, plaster,
and other non-metallic
minerals



4.4 Gt

Sources of Global Emissions

Plastics and
rubber



1.5 Gt

23%

0.9 Gt



Wood production

Food
26%

Other
51%

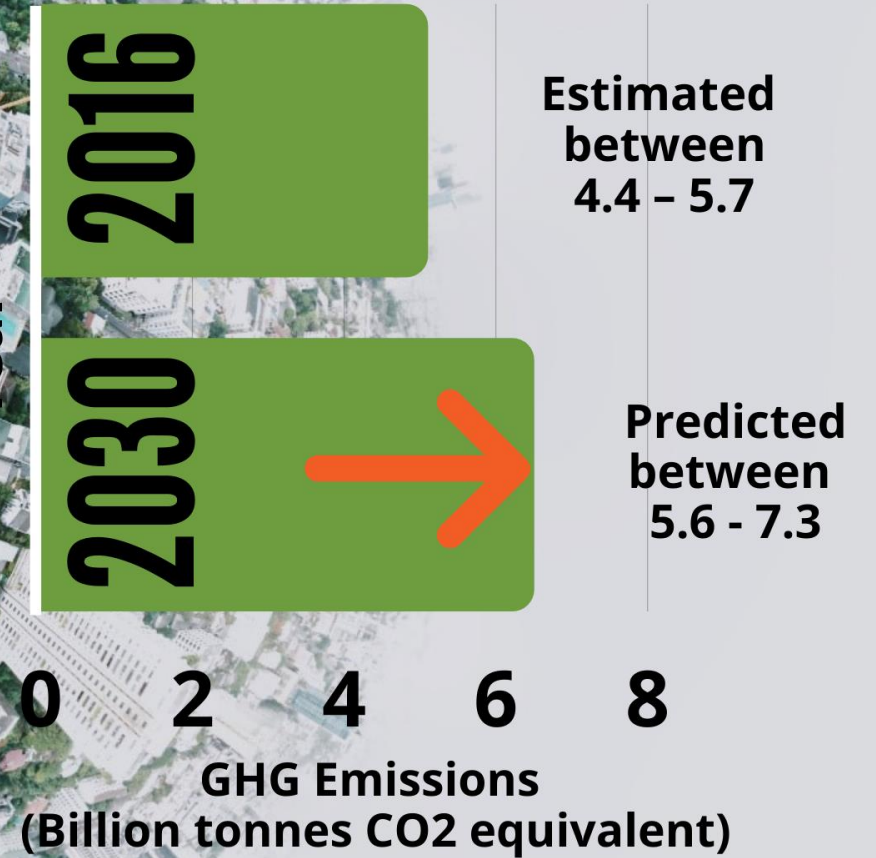
Sources: IRP (2020). Resource Efficiency and Climate Change: Material Efficiency Strategies for a Low-Carbon Future. Summary for Policymakers, A report of the International Resource Panel. United Nations Environment Programme, Nairobi, Kenya (lead authors: Edgar Hertwich, Reid Lifset, Stefan Pauliuk, and Niko Heeren).

Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. *Science*, 360(6392), 987-992

Reported emissions to UNFCCC under Waste Chapter

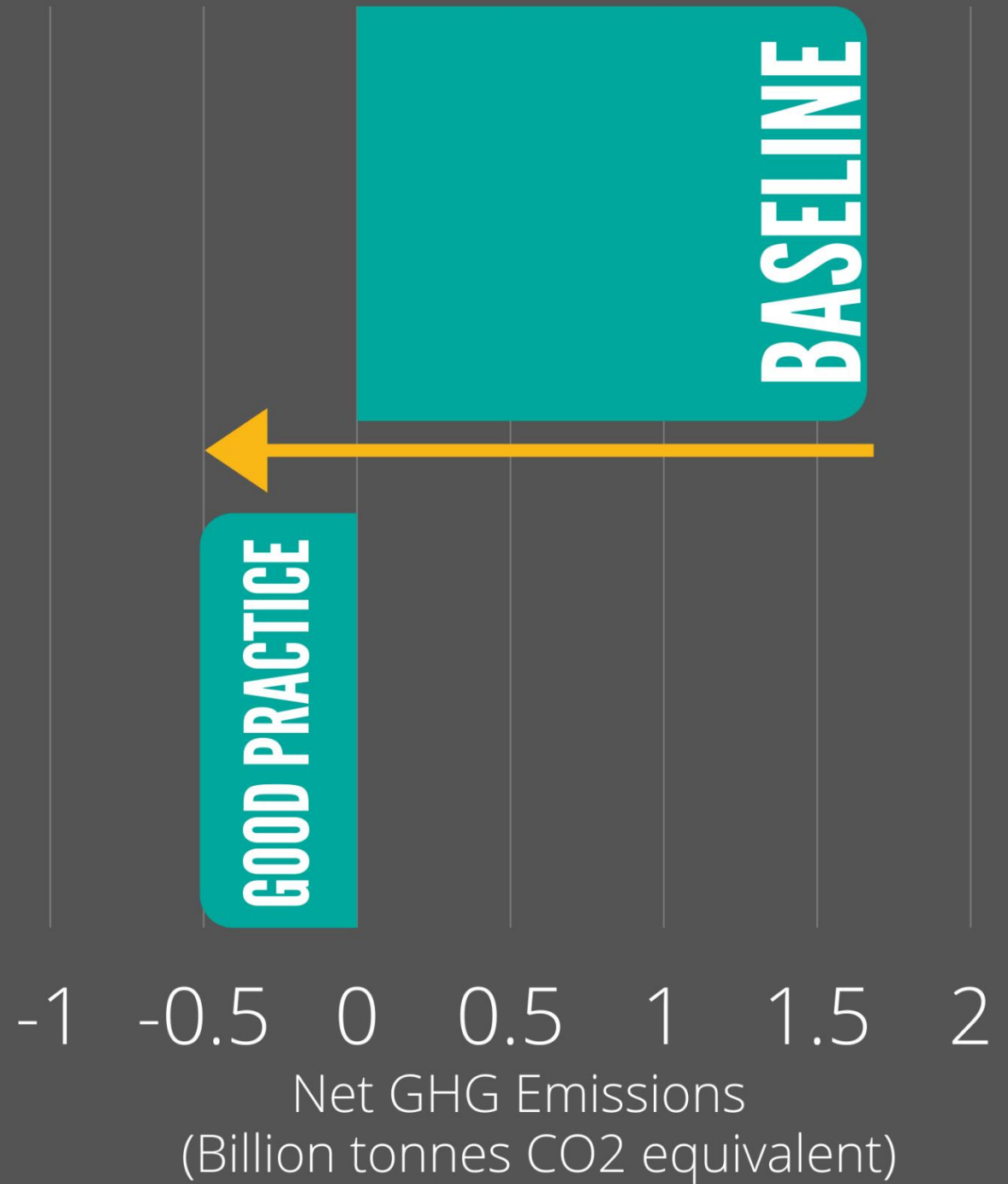
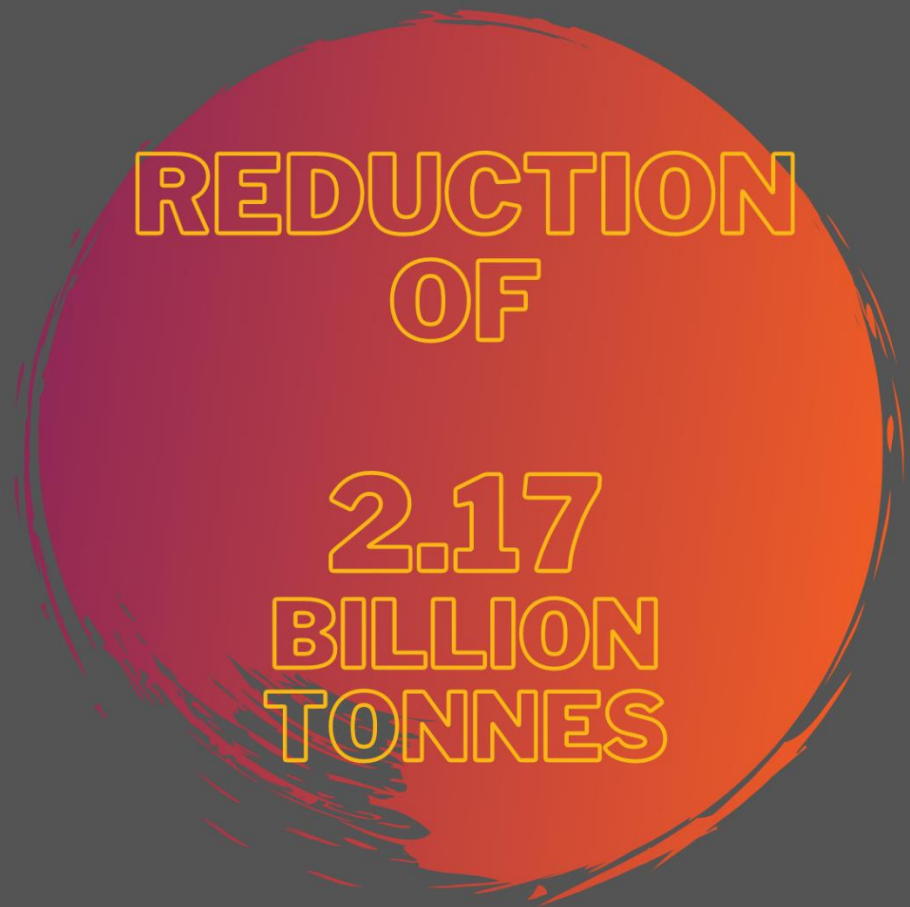
1.6 billion tonnes

Emissions from making materials that become municipal waste



Source: CAIT; Countries/Regions: World; Sectors/Subsectors: Waste; Gases: All GHG; Calculation: Total; Show data by Regions

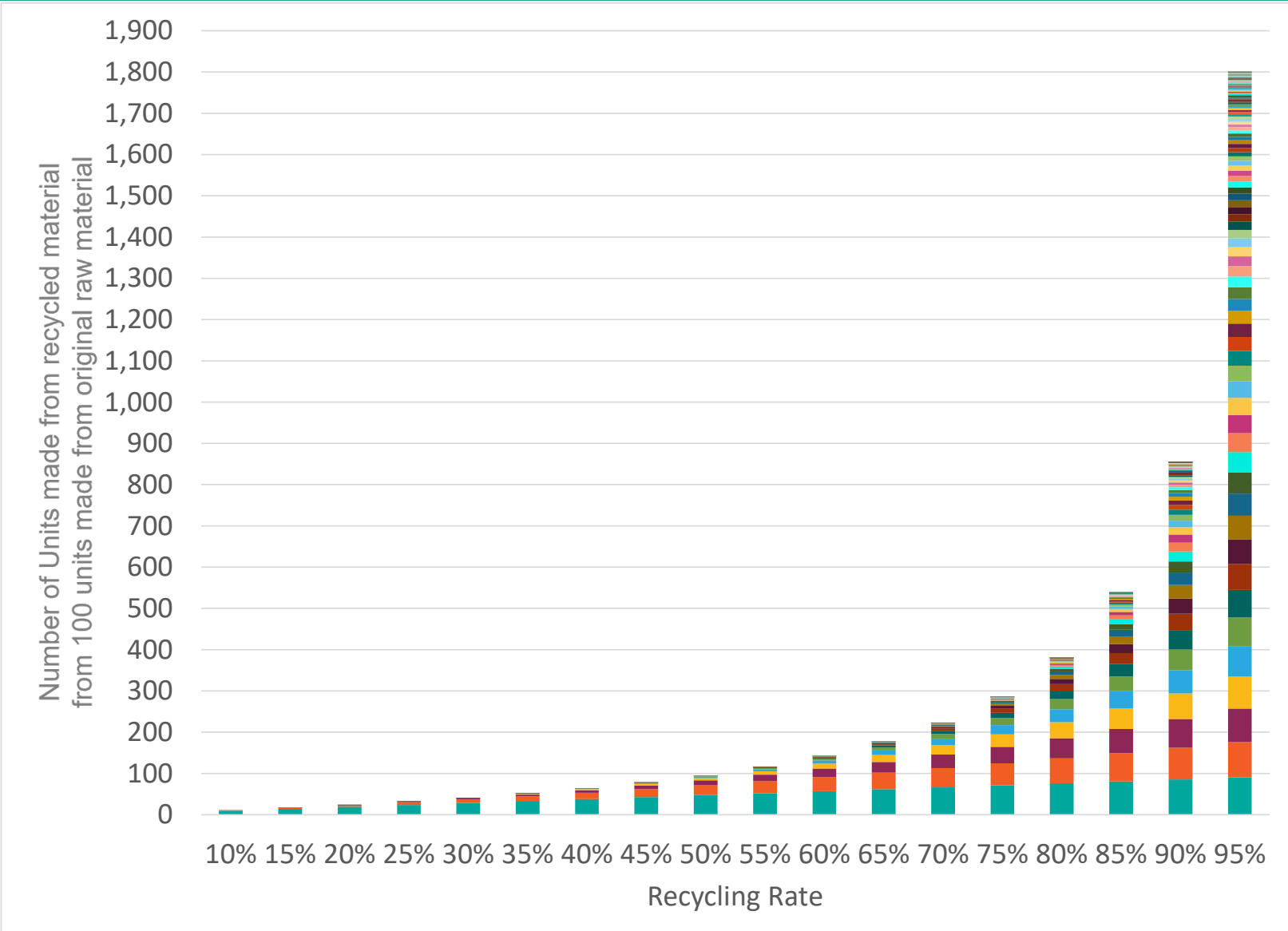
World Bank projections
+ 30% increase in
generation





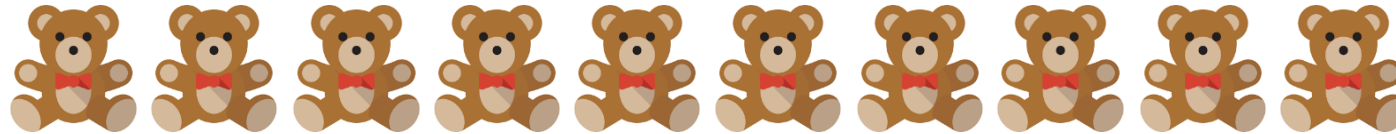
**Drive to Much Higher
Recycling Rates**

High Recycling Rates: Giving Appropriate Credit



High Recycling Rates: Giving Appropriate Credit

- **Start: 100 units made of 'raw materials'**



- **Collect 70% for recycling**

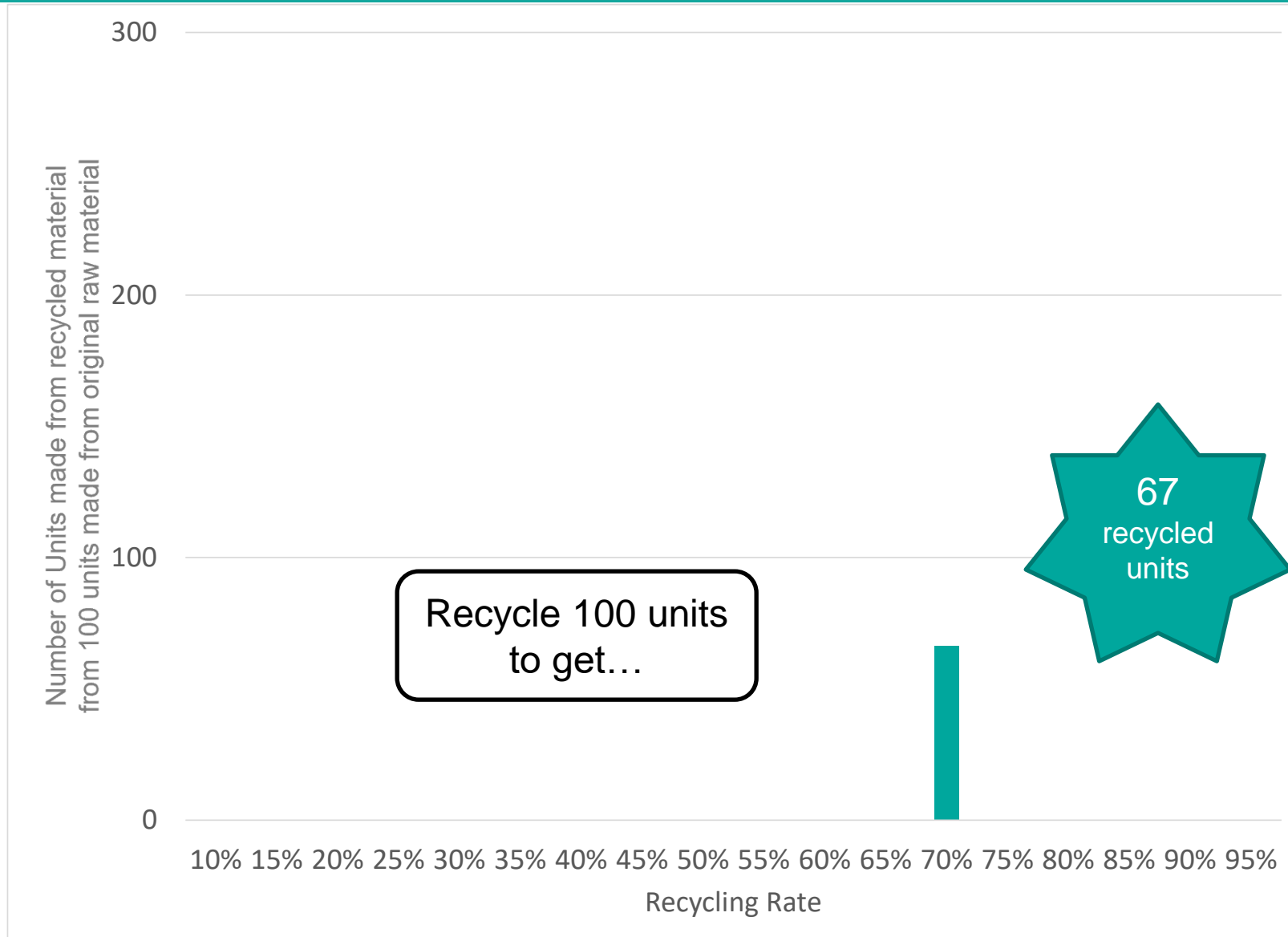


- **Recycling yields 95%**

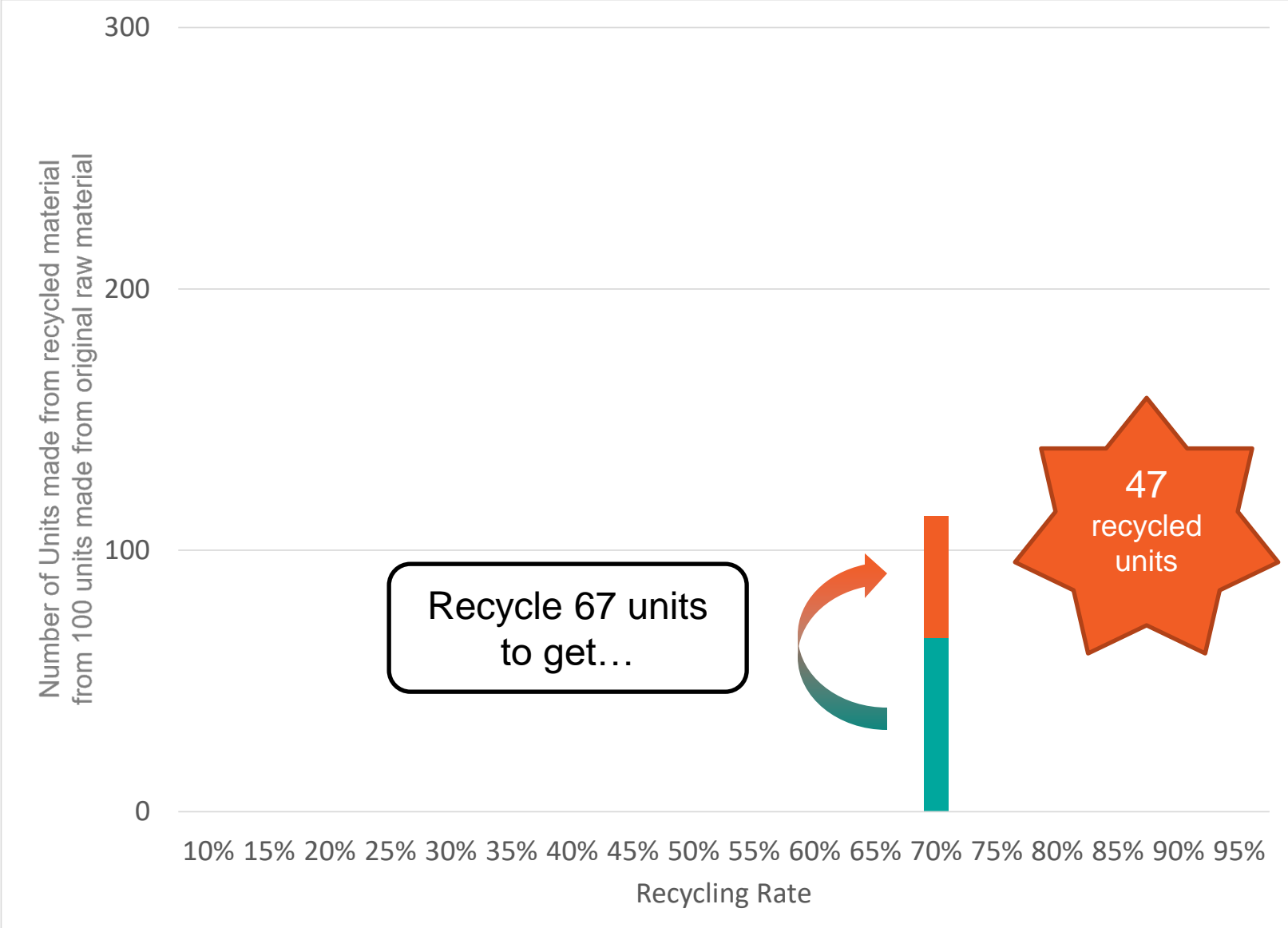


- **Repeat...**

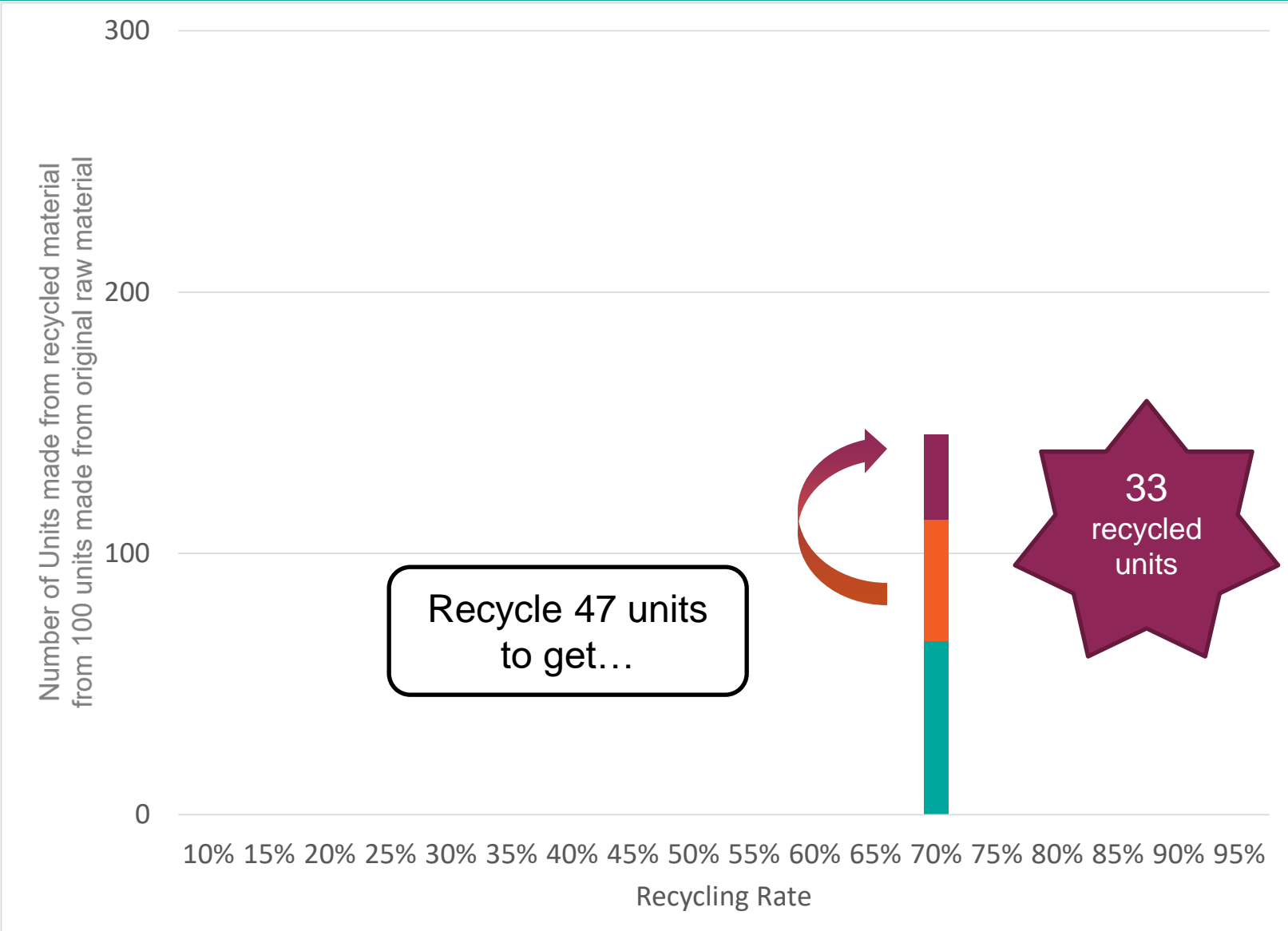
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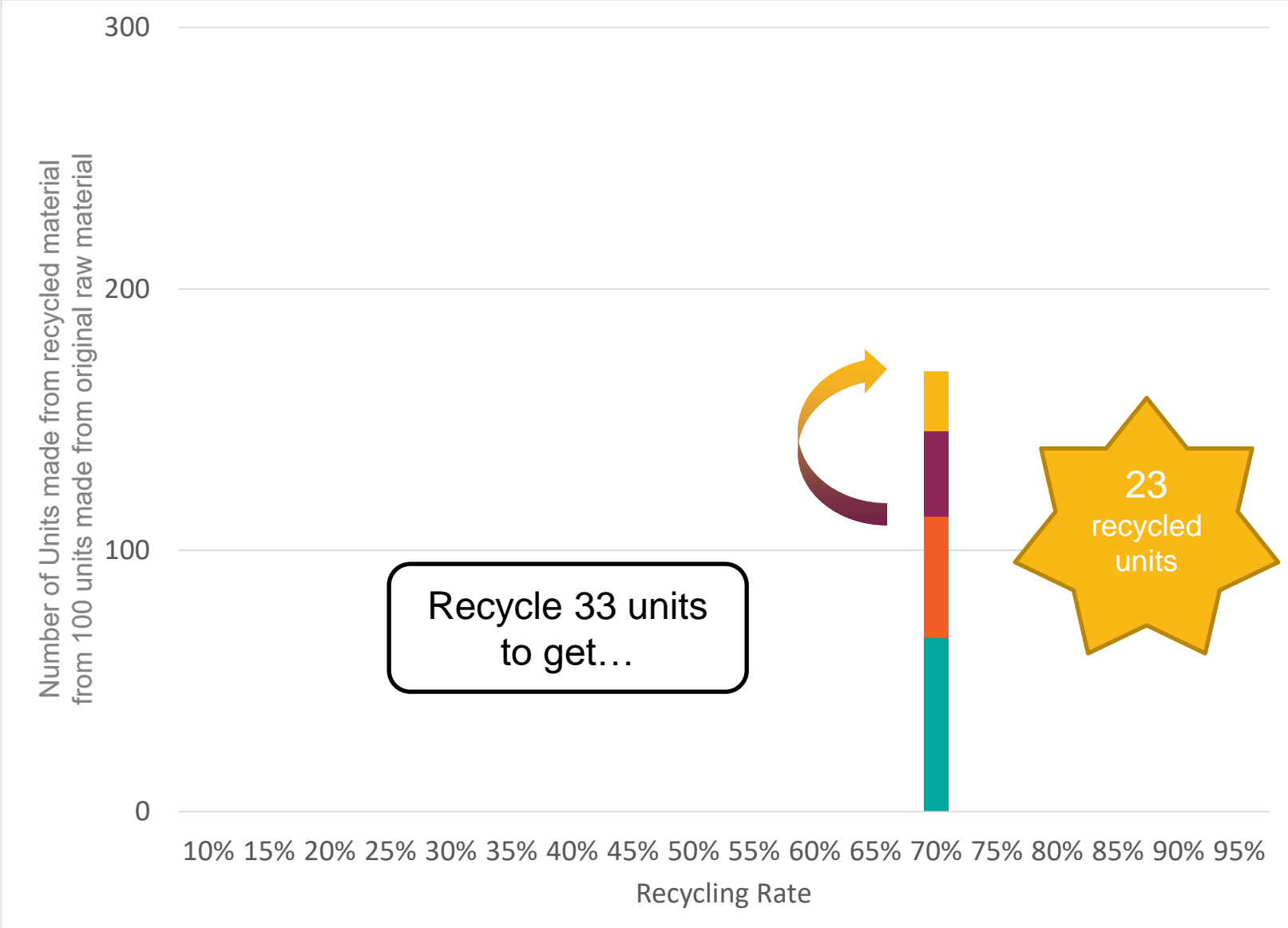
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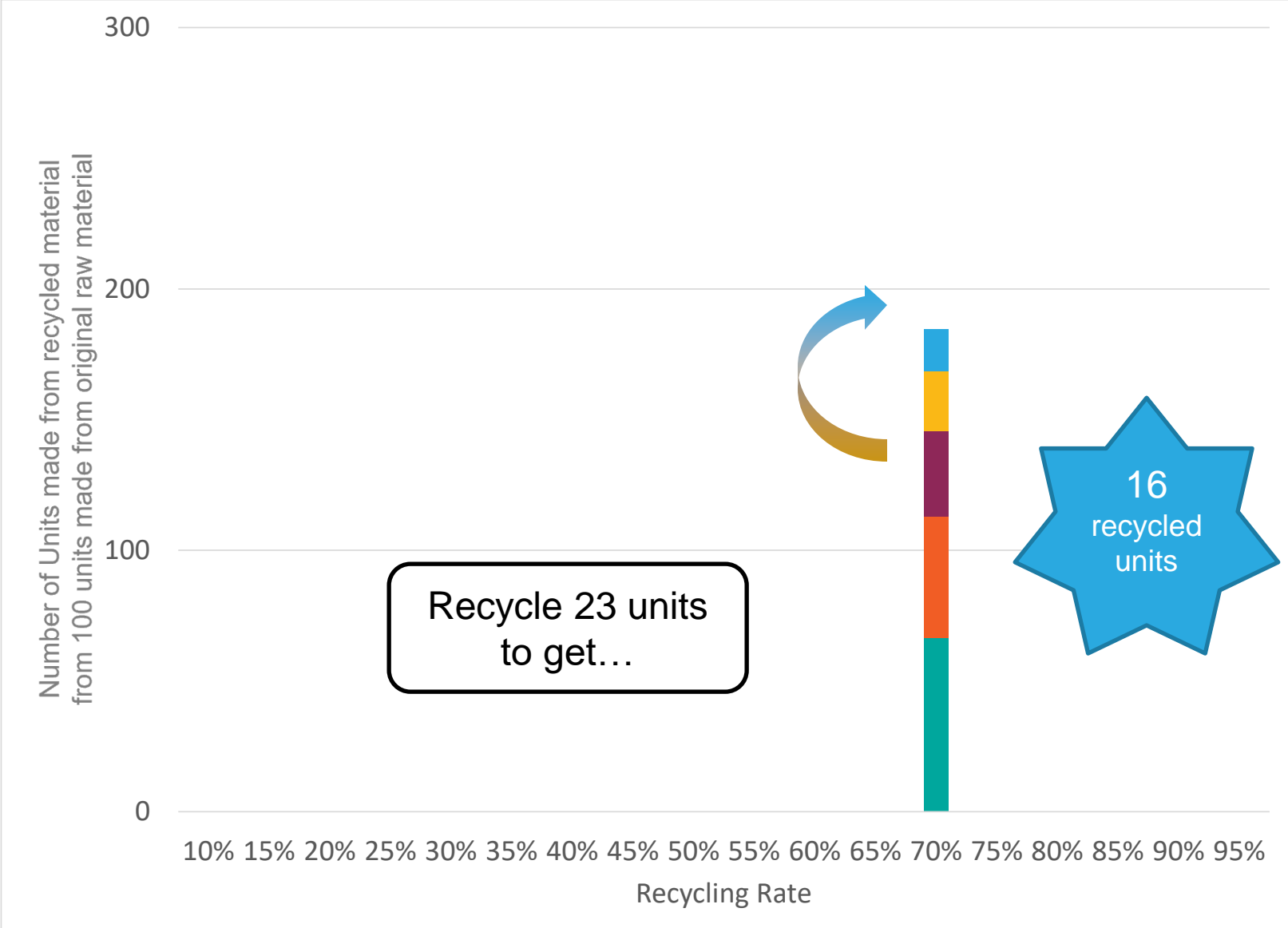
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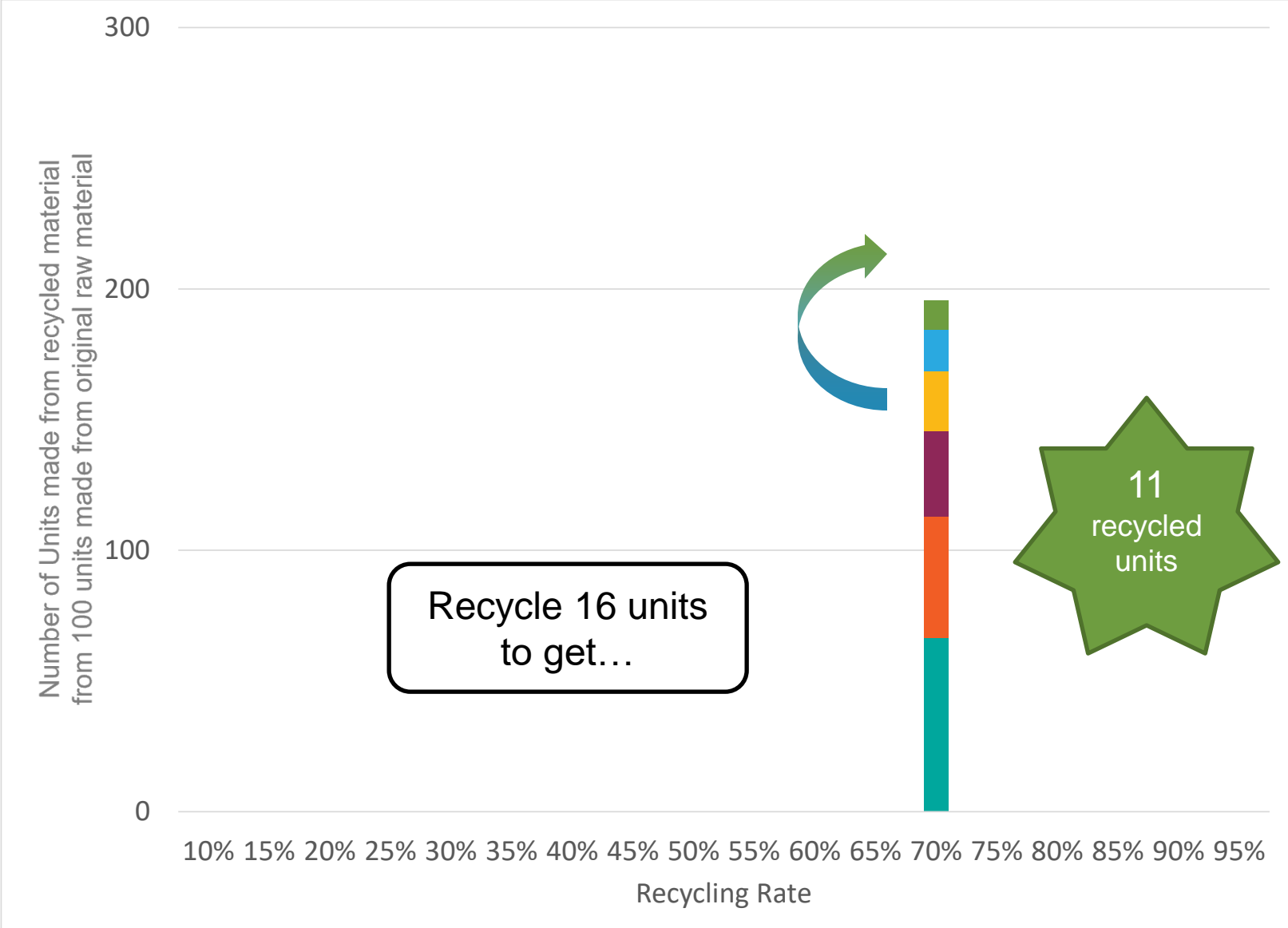
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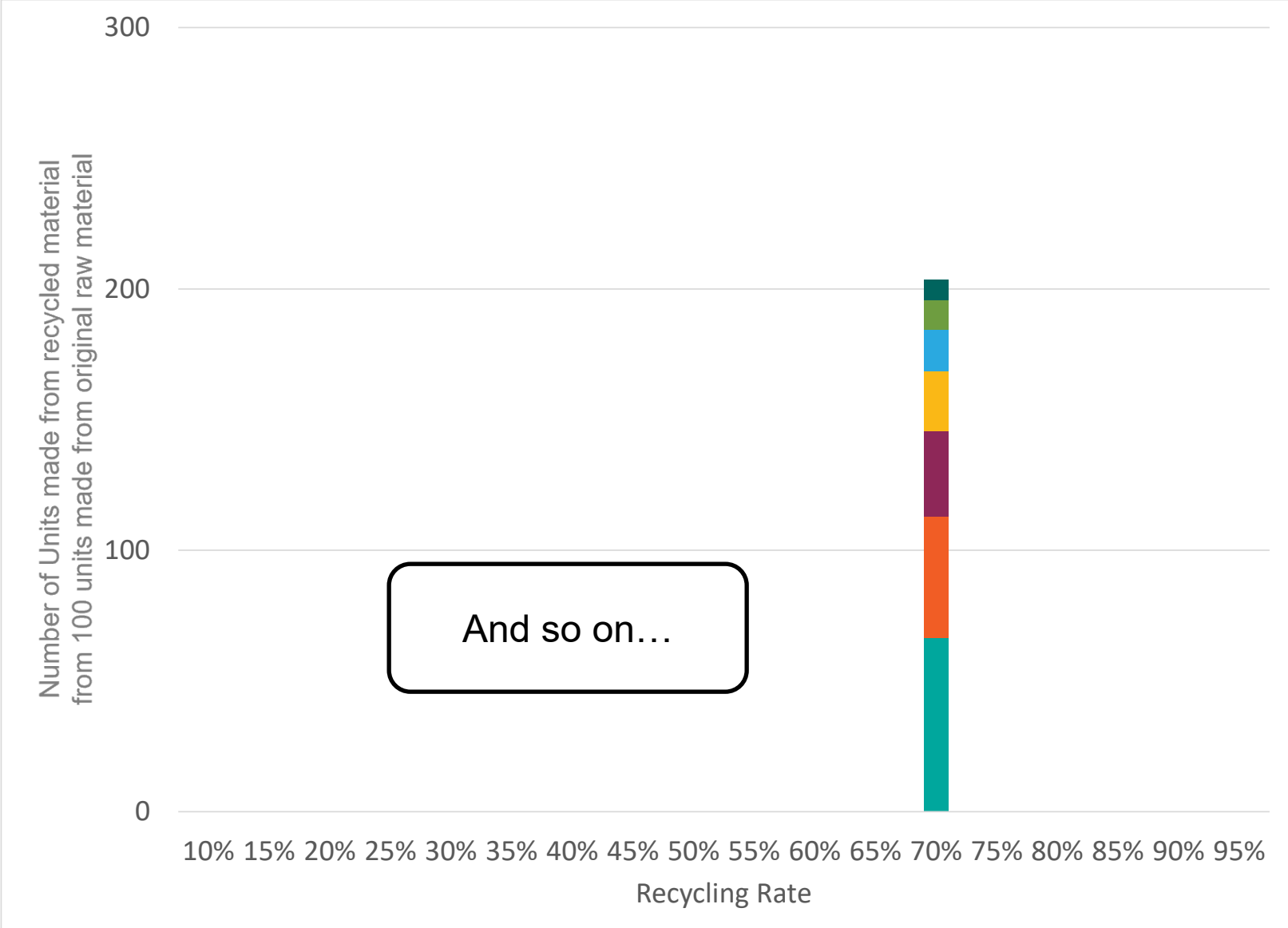
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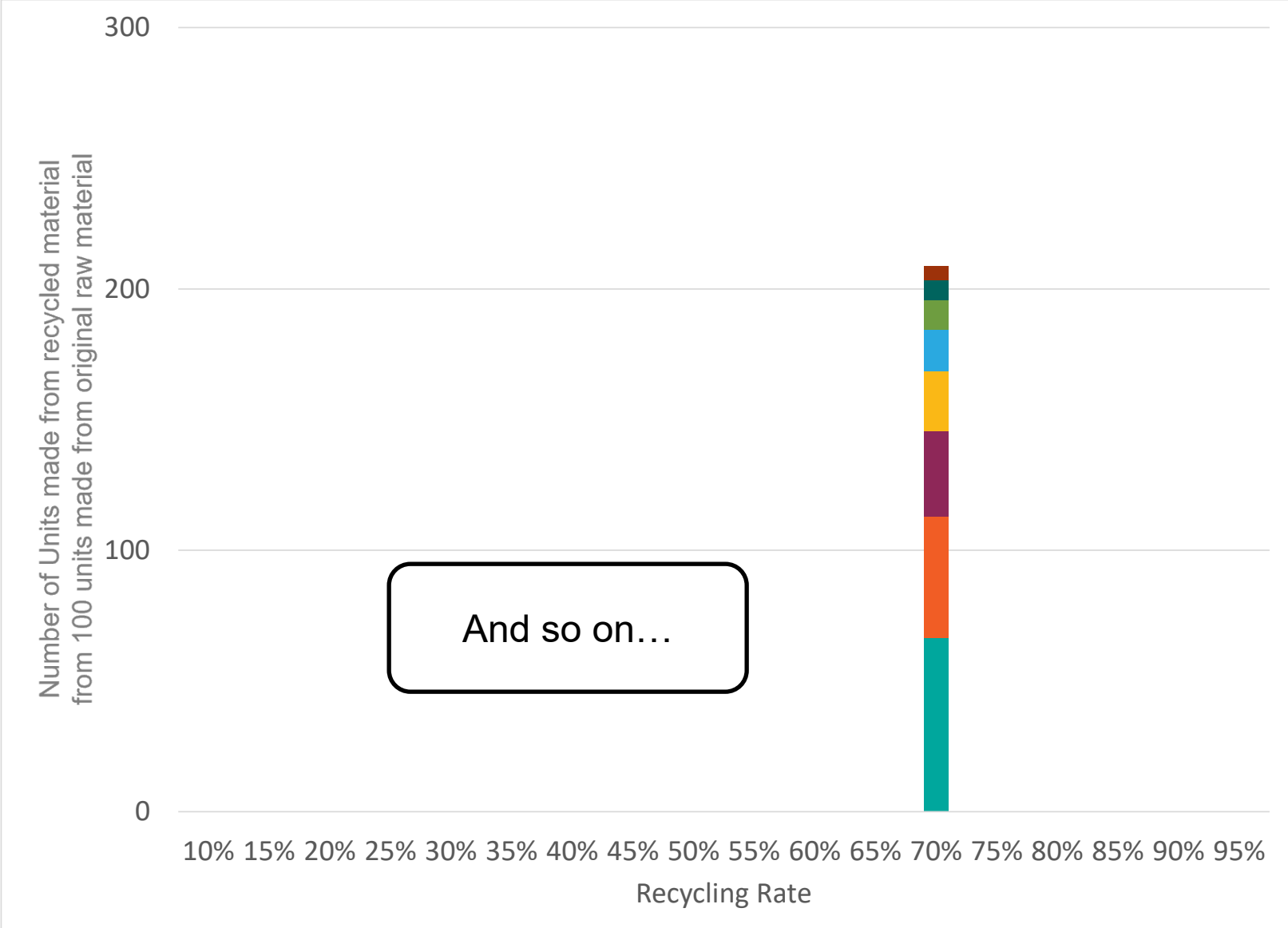
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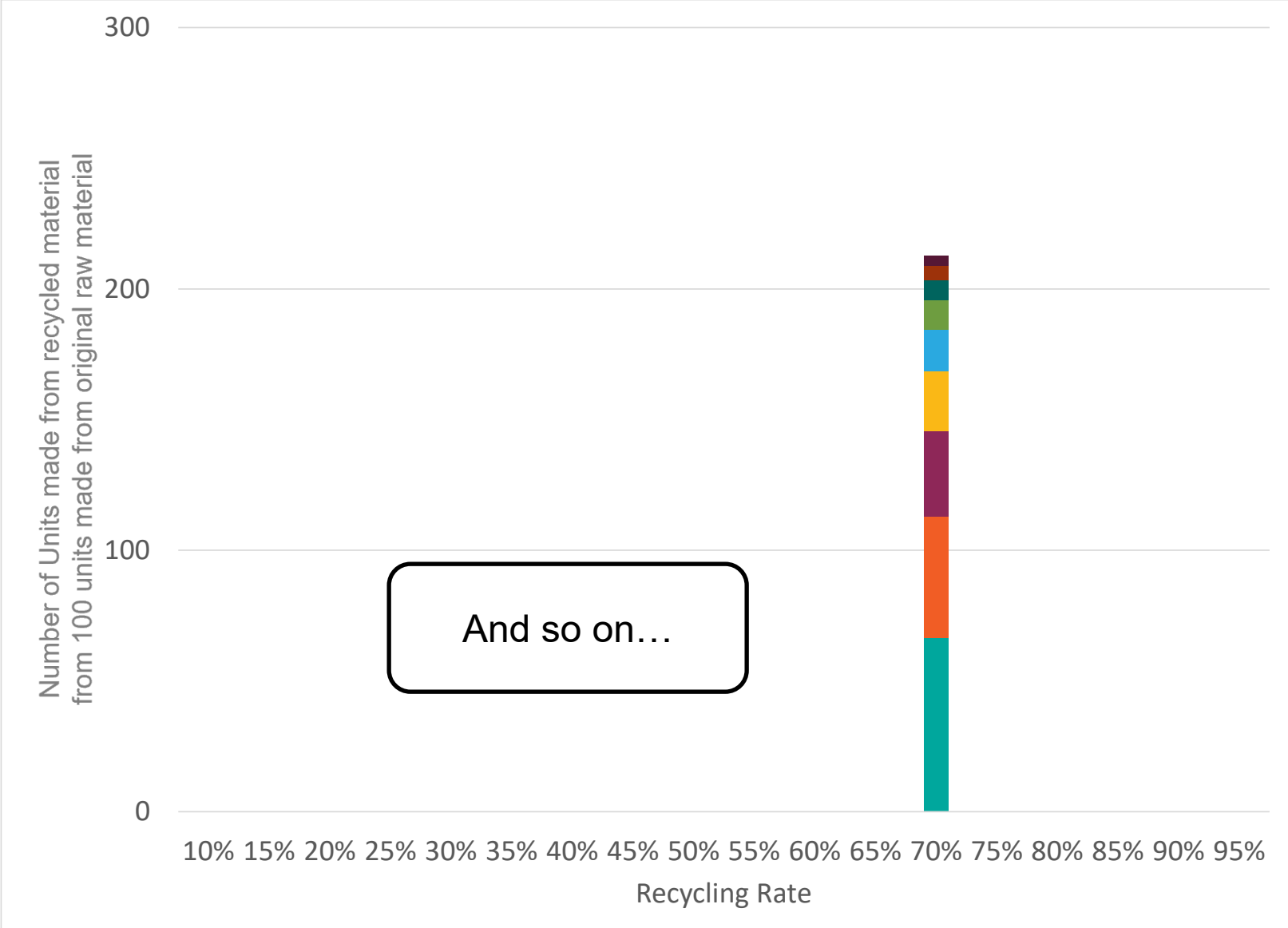
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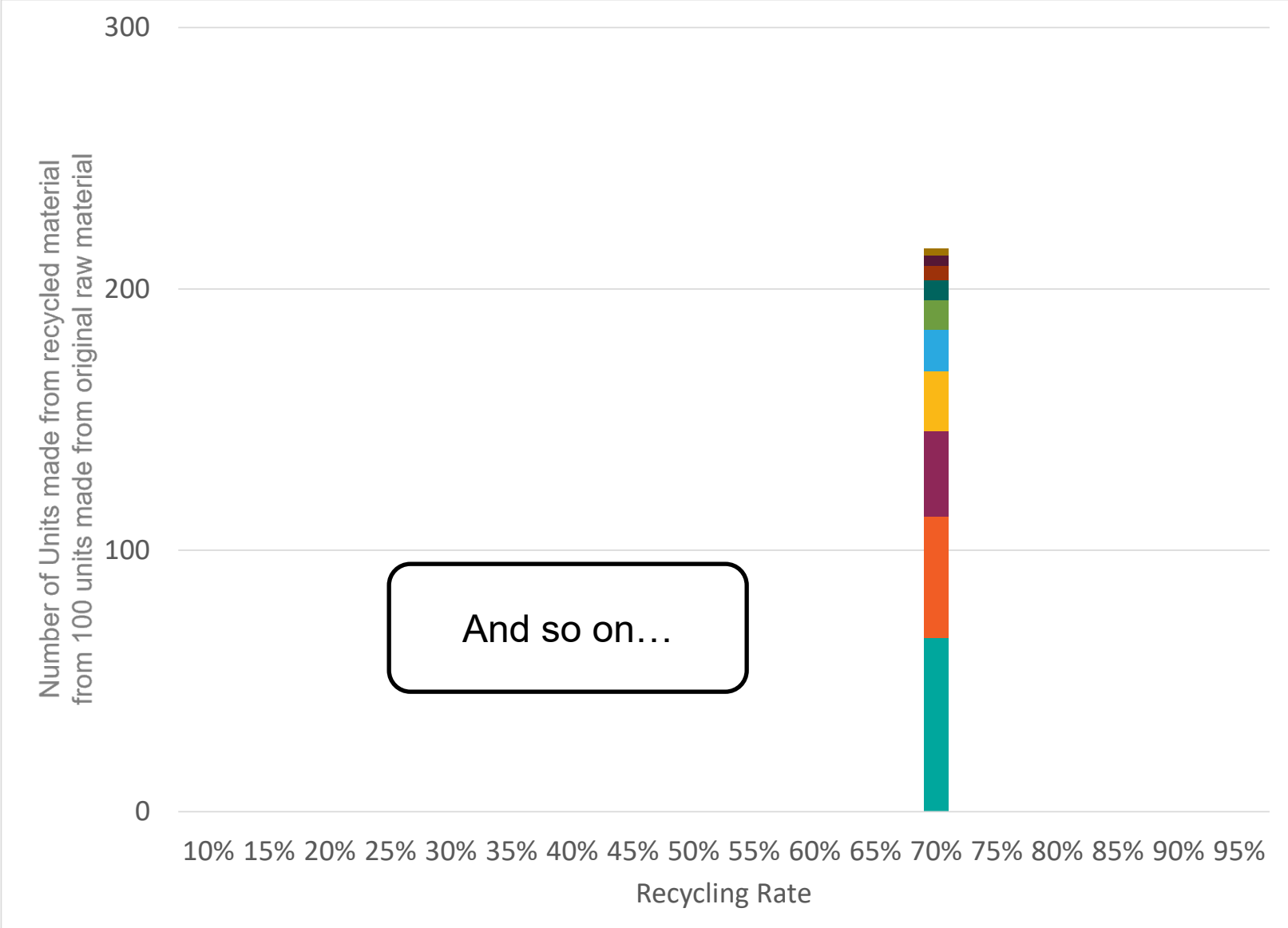
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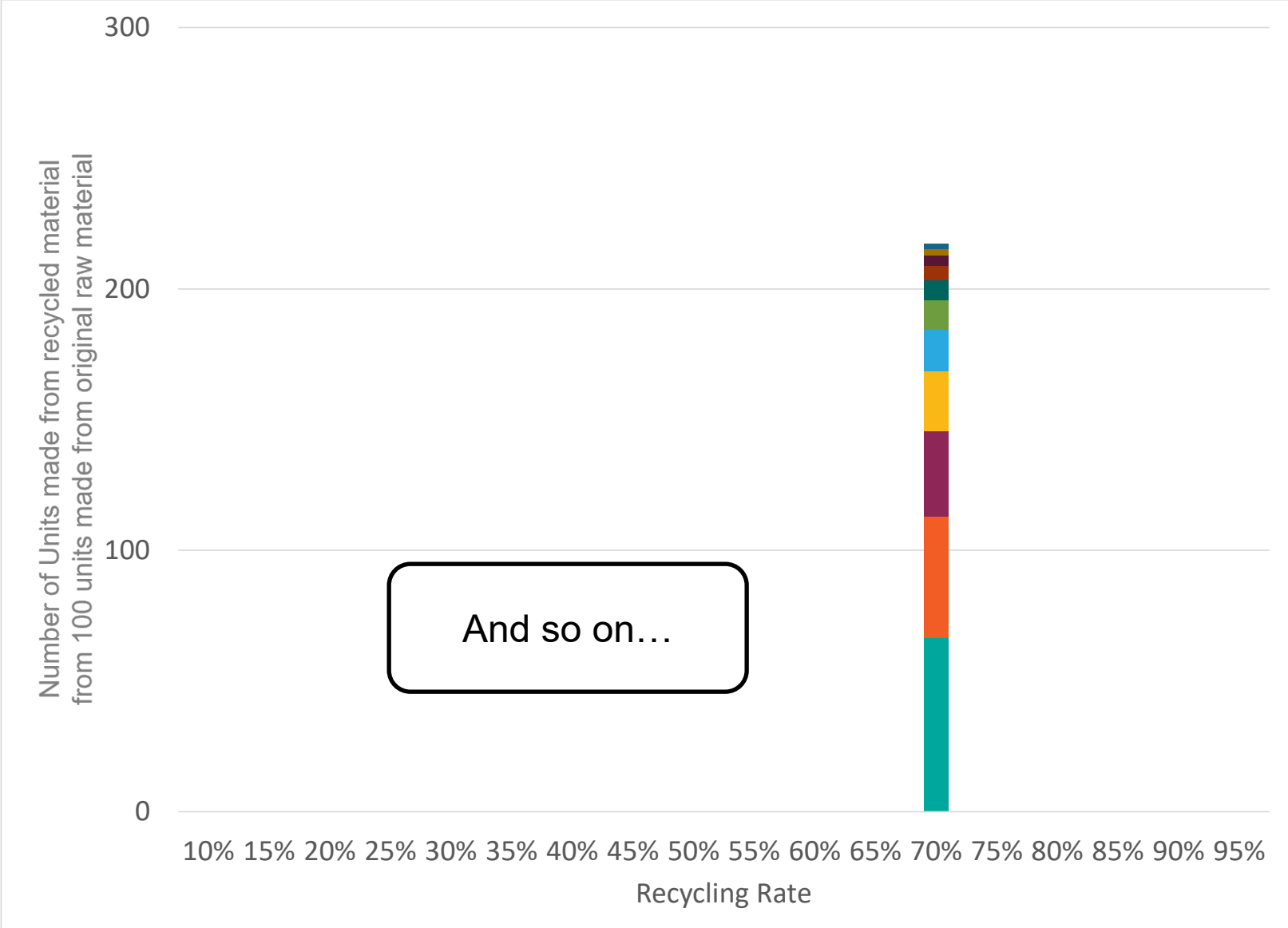
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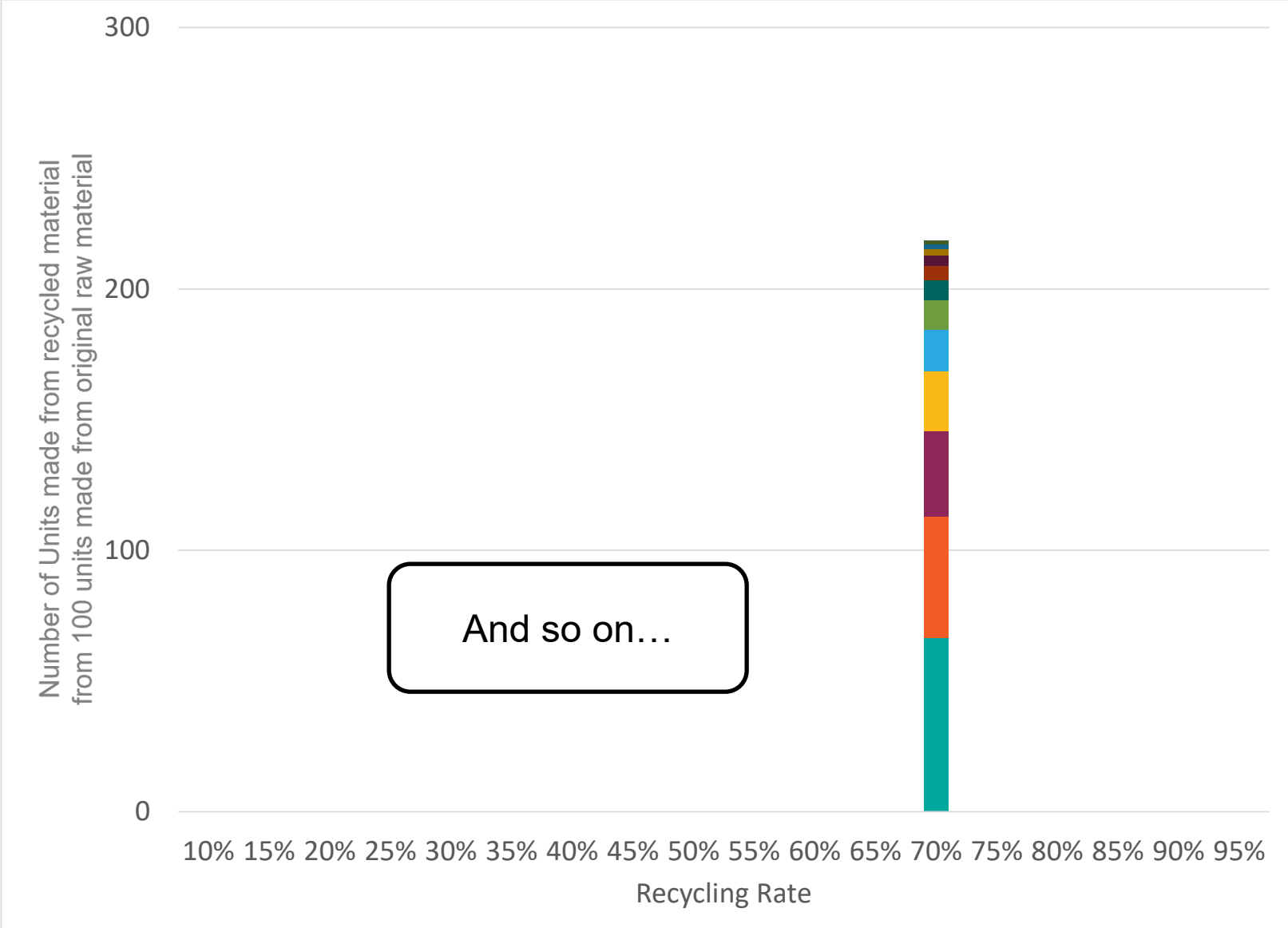
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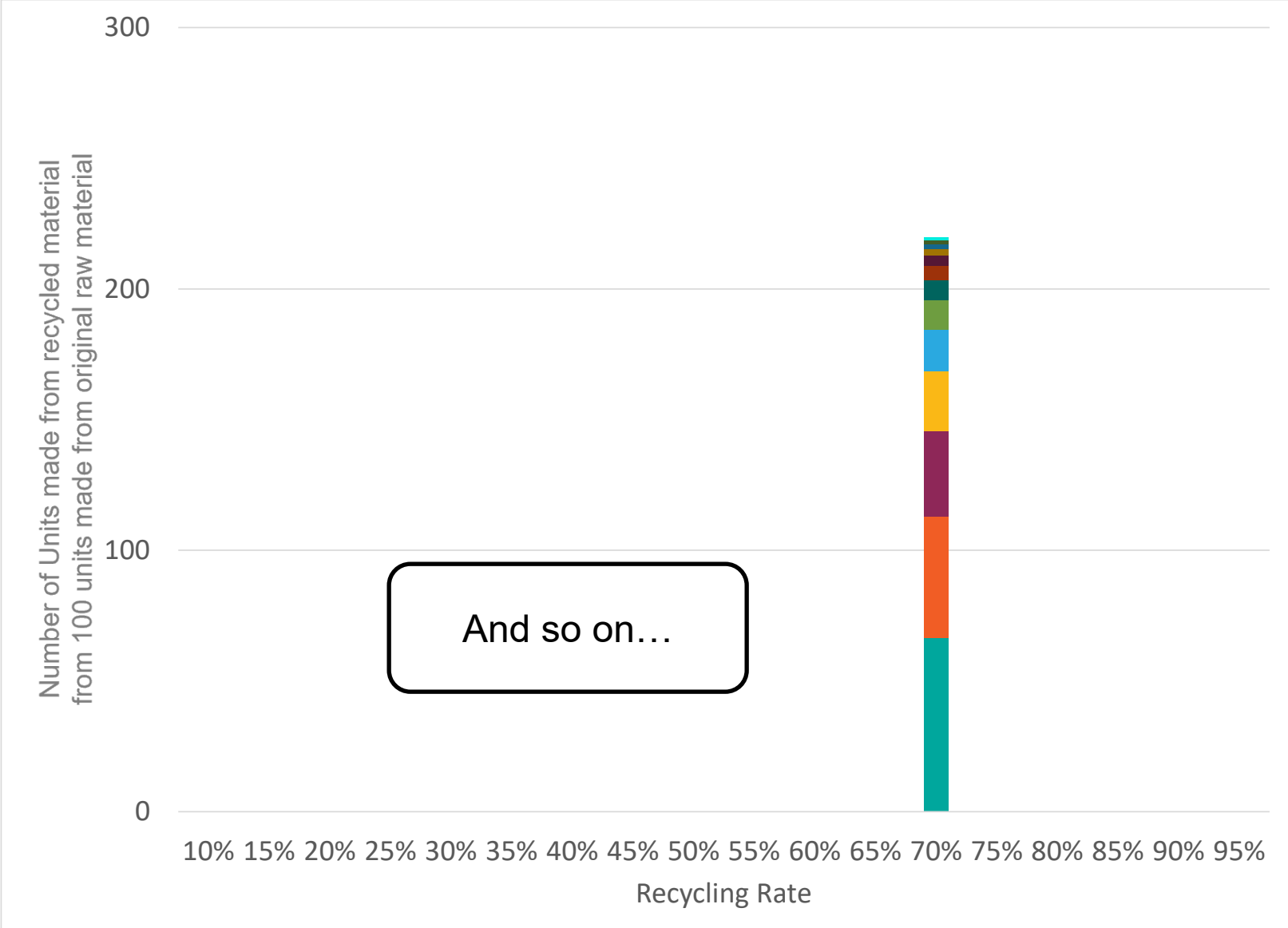
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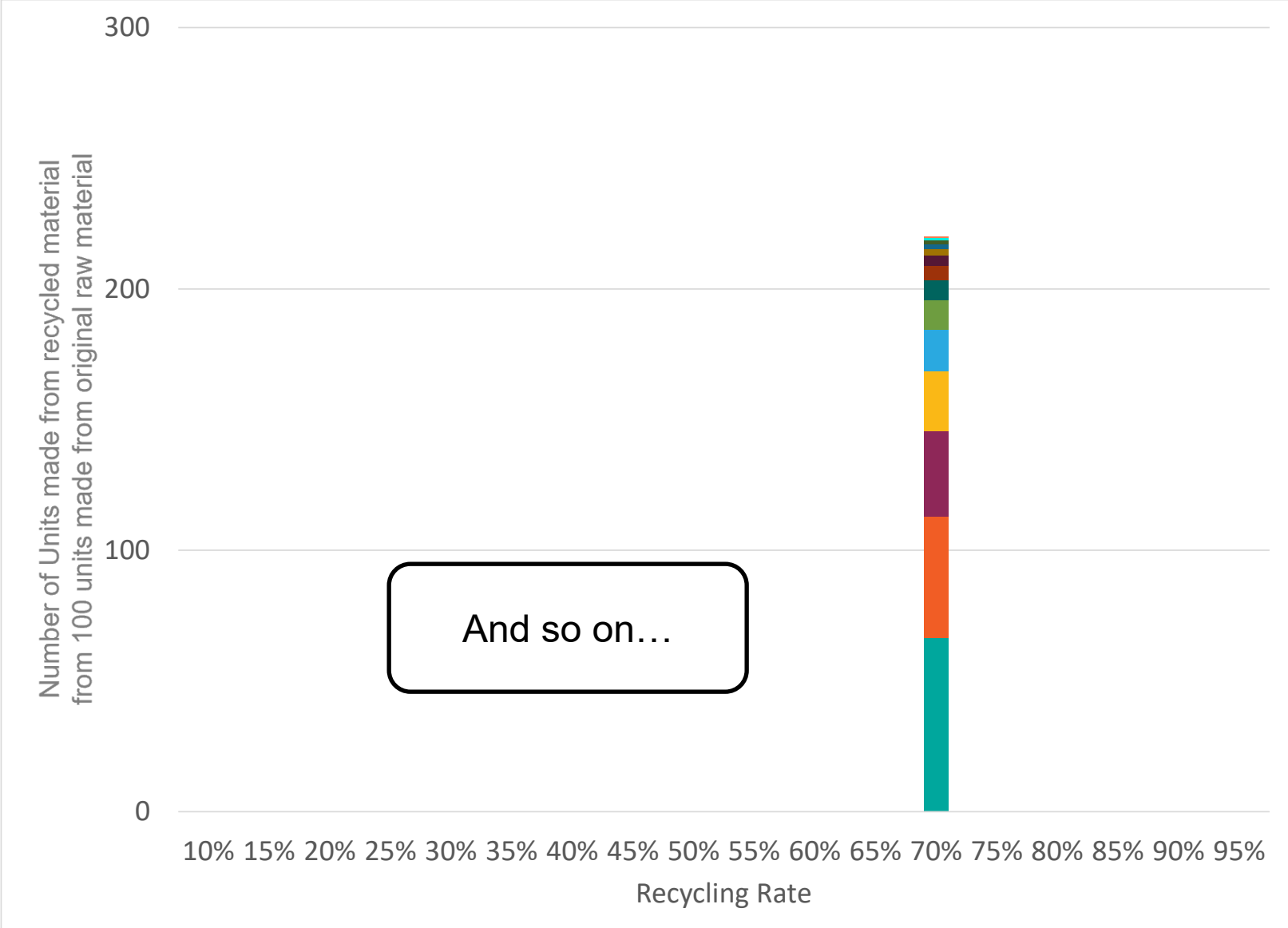
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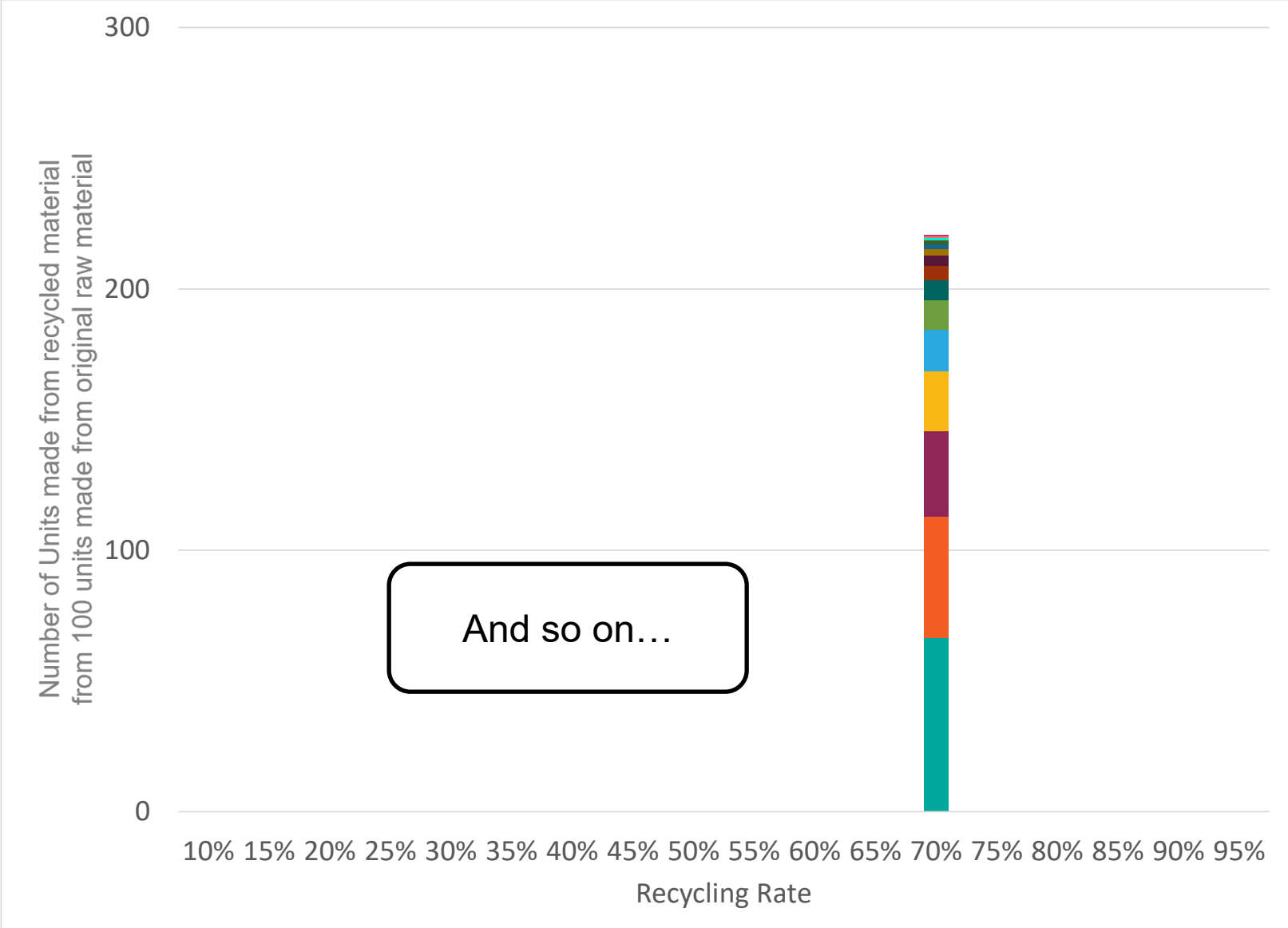
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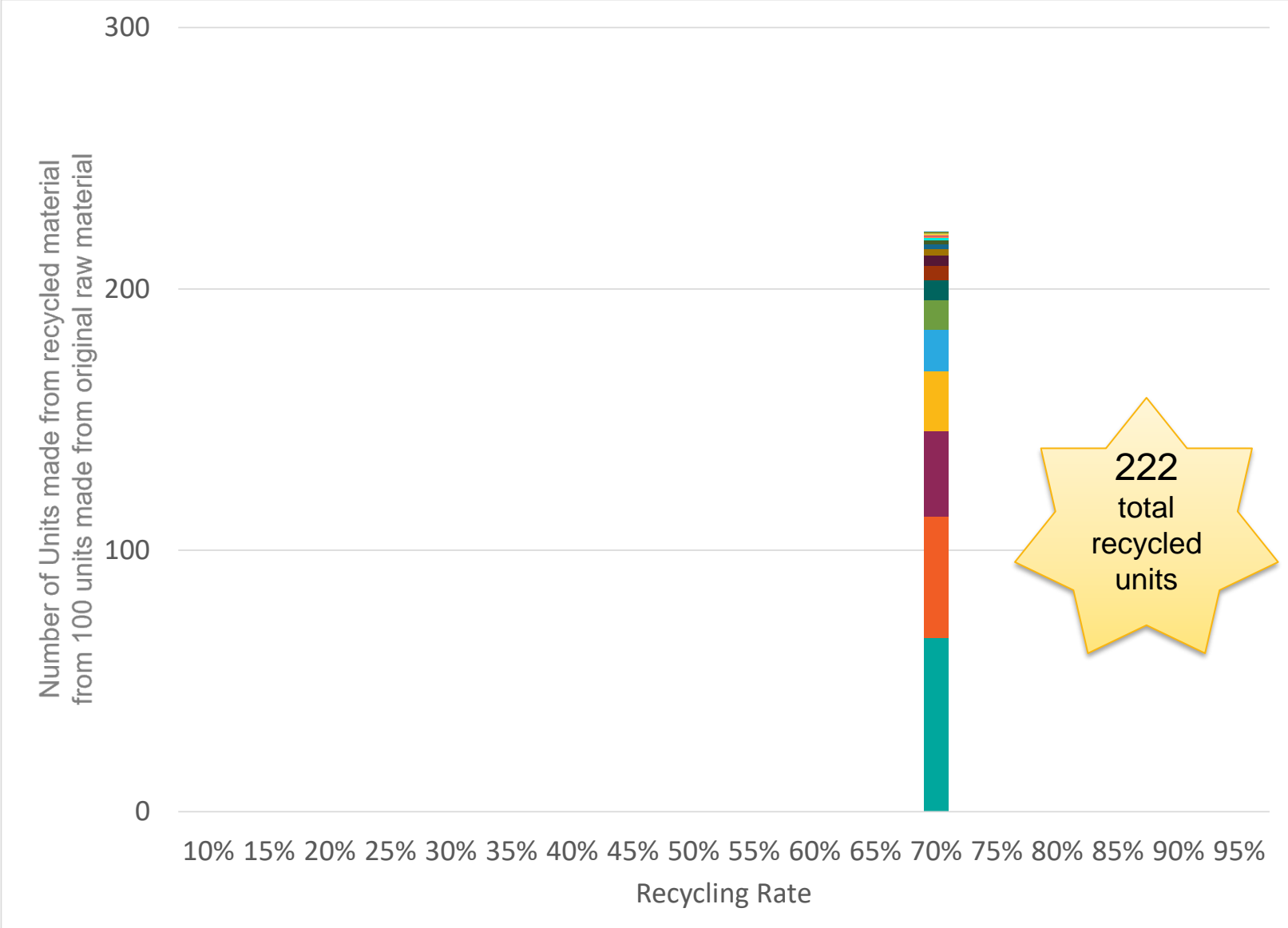
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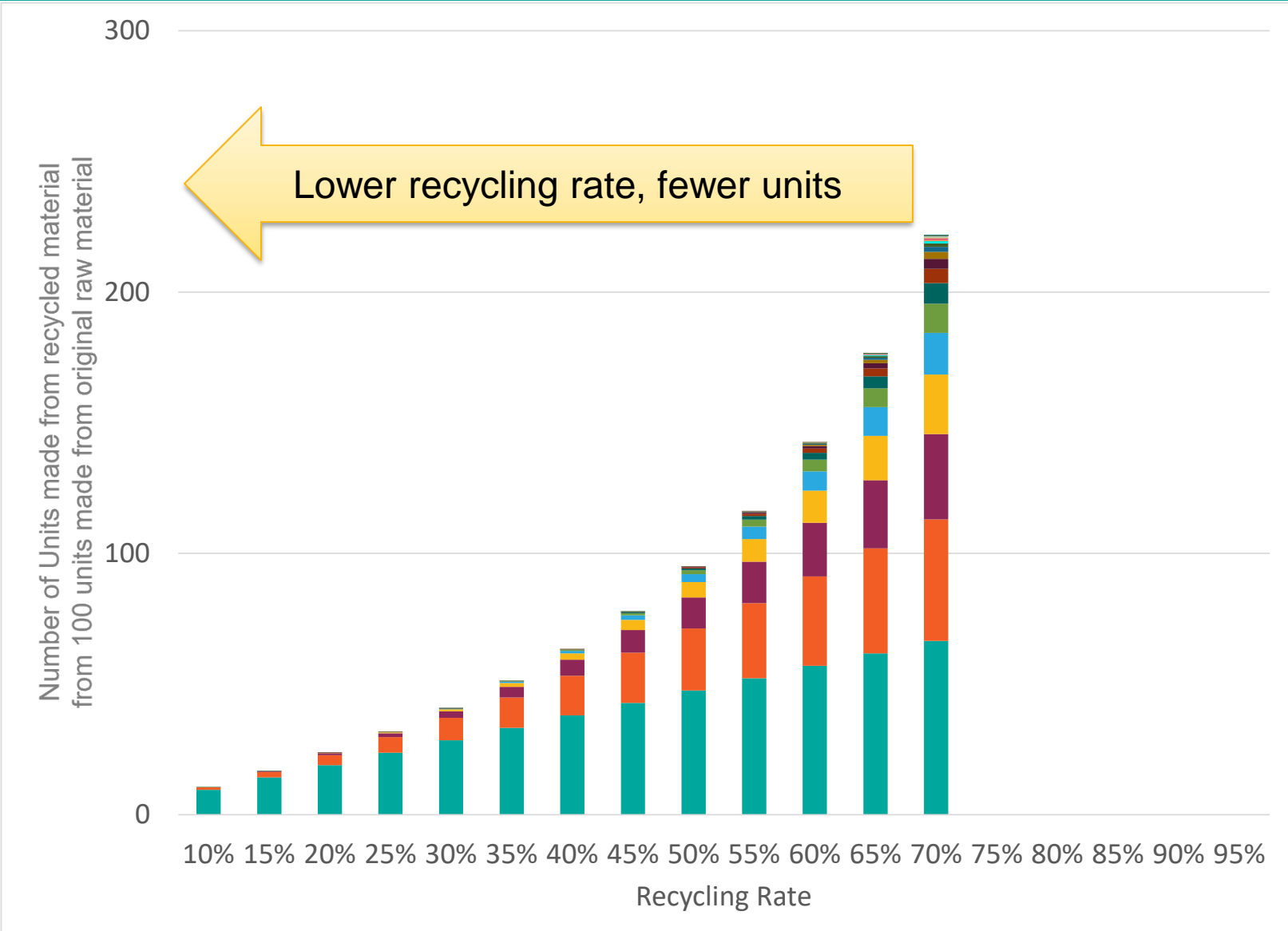
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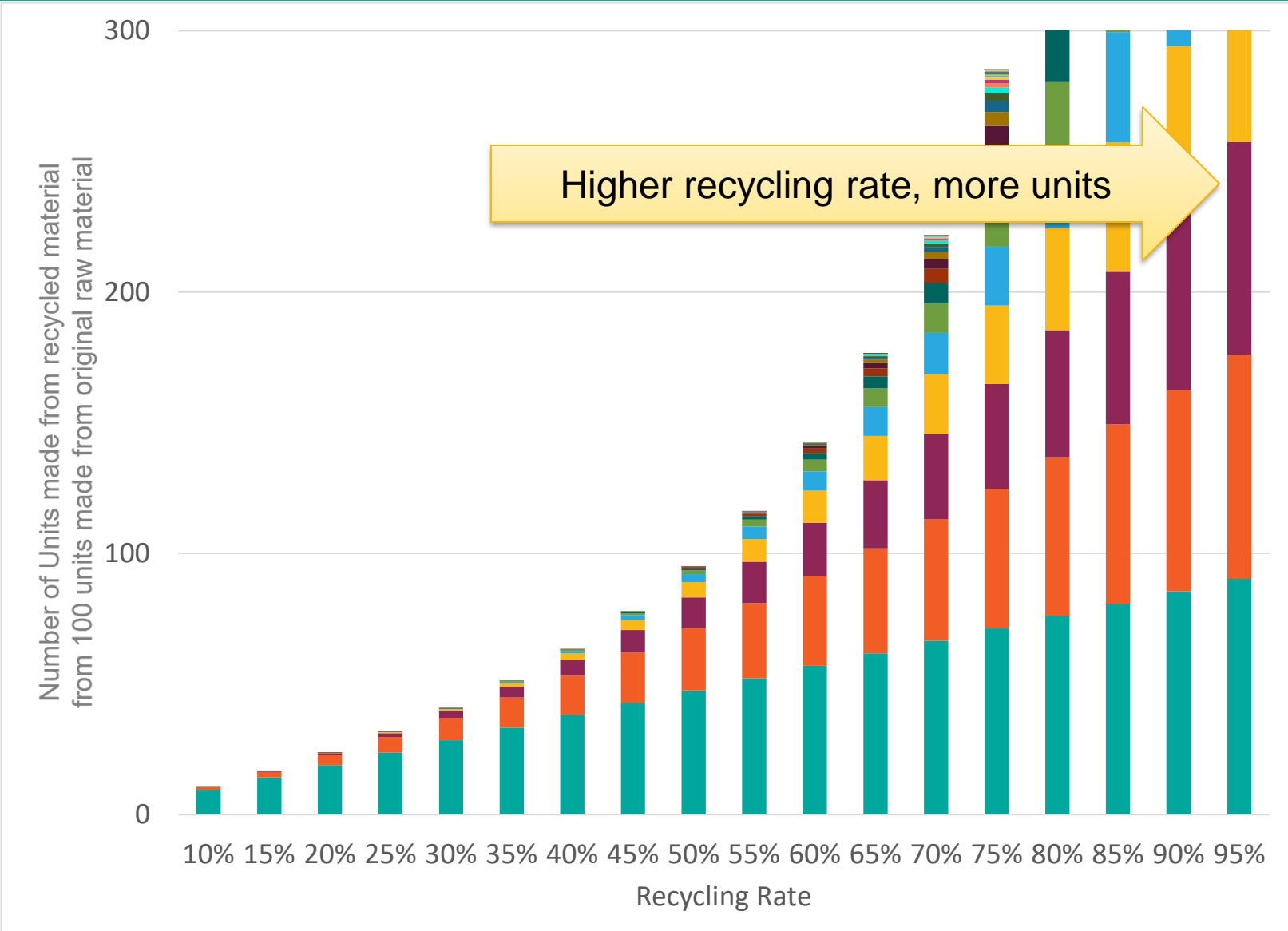
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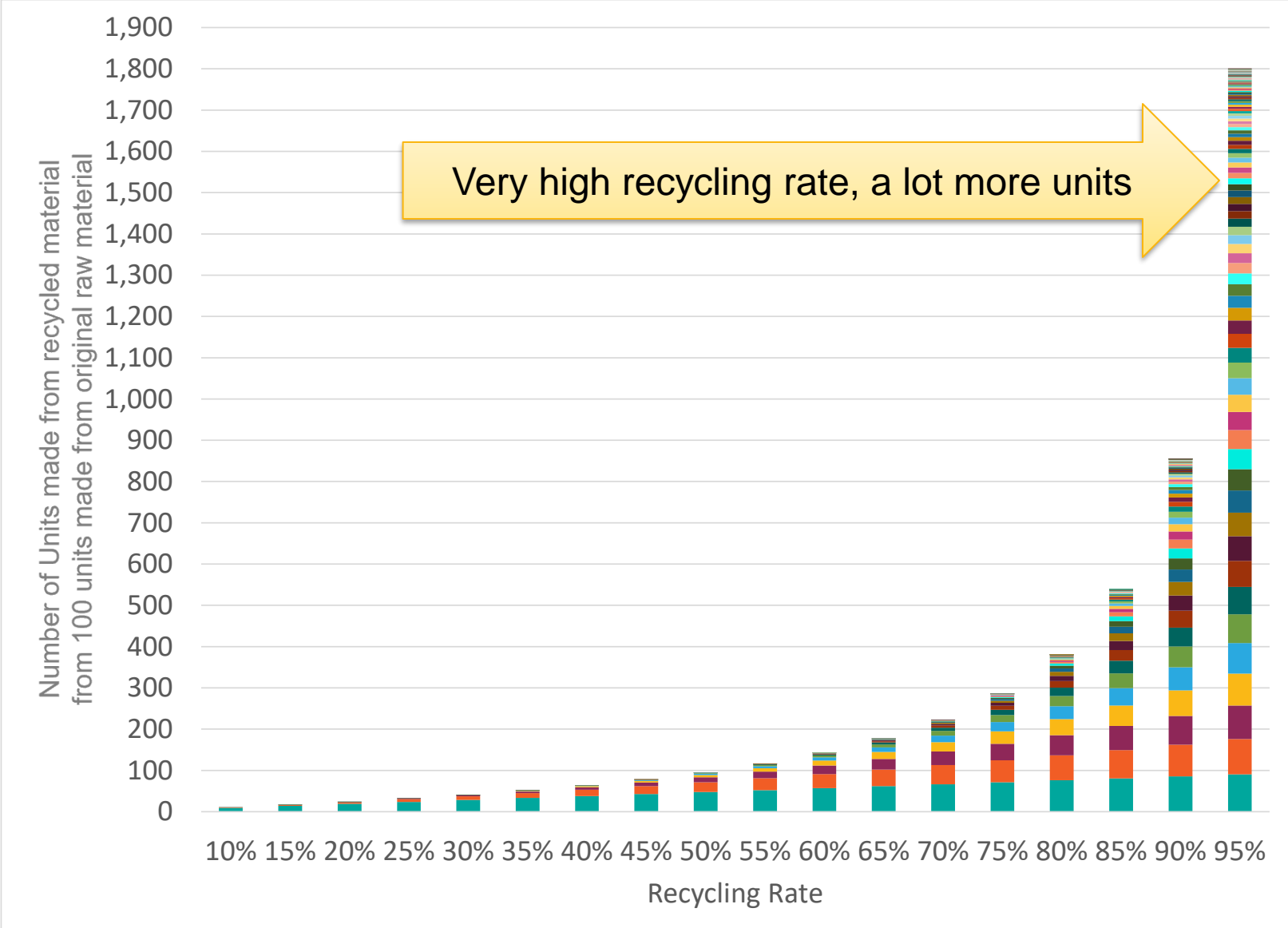
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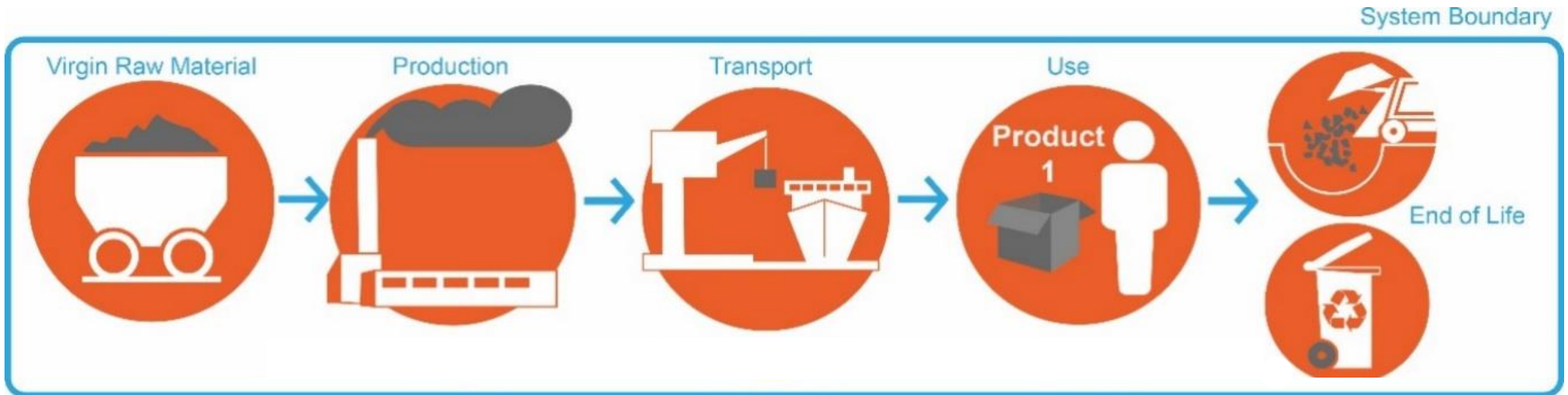
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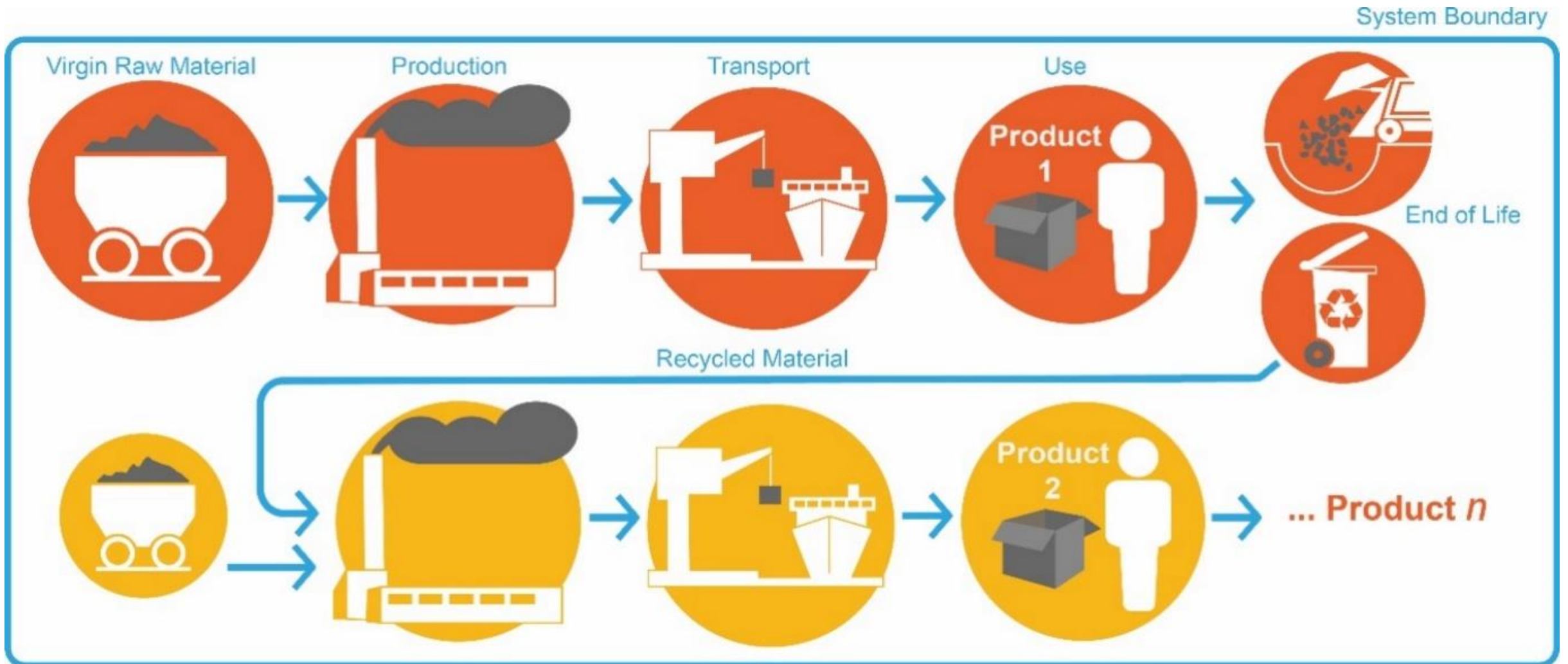
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Expanding LCA System Boundary for Material Circularity



Expanding LCA System Boundary for Material Circularity





Shift to Reuse



Fruits secs



Pâtes légères



Café
ou
Pâtes à sauter



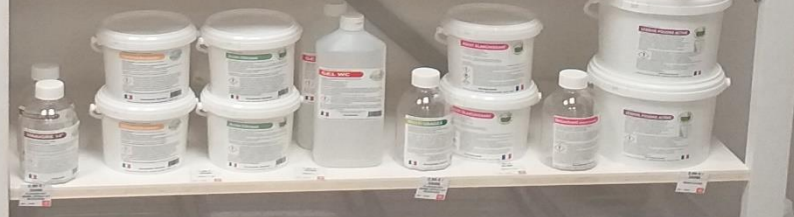
Produits
BIO
à prix
réduits



DROGUERIE

LES CONTENANTS EN VERRE NE SONT PAS ACCEPTÉS
POUR LA DROGUERIE
MERCI DE PRENDRE LES CONTENANTS PRE-ÉTIQUETTES
MERCI DE VOTRE COMPRÉHENSION

1. PRÉFÉRER LES CONTENANTS EN PLASTIQUE
 2. PRÉFÉRER LE CONTENUANT QUI CORRESPOND À LA QUANTITÉ DE PRODUIT À UTILISER
 3. VÉRIFIER LA QUANTITÉ DE PRODUIT INDICÉE SUR LE FLACON. PRÉFÉRER LE CONTENUANT QUI CORRESPOND À LA QUANTITÉ DE PRODUIT À UTILISER
 4. LA PRÉCISION DES MESURES EST TRÈS IMPORTANTE POUR VOUS ASSURER DE LA BONNE UTILISATION DES PRODUITS. VÉRIFIER LA QUANTITÉ DE PRODUIT INDICÉE SUR LE FLACON.
- POUR BIEN ACHETER VOS PRODUITS CHEZ METRO



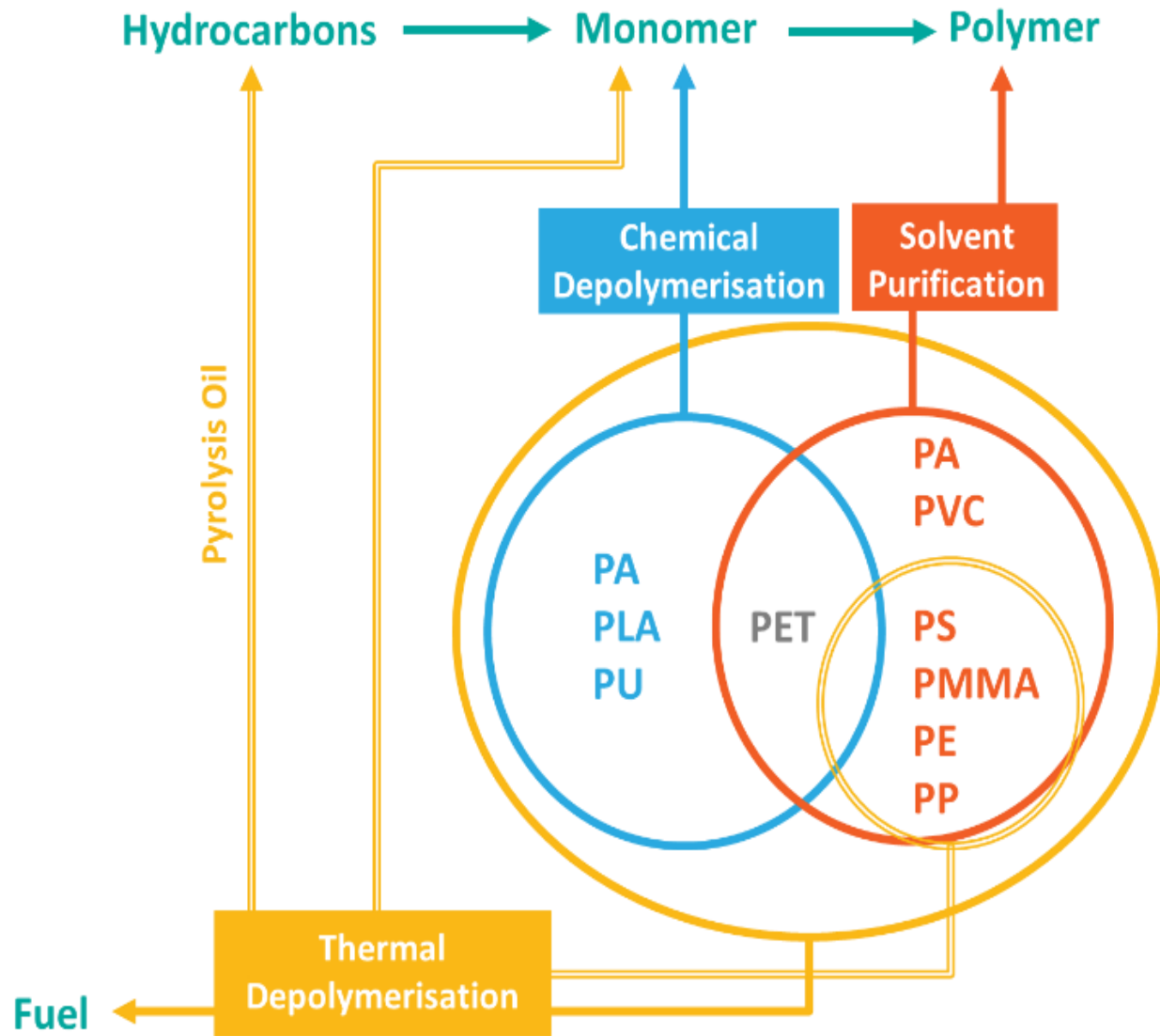




Uptake of Recyclates



Recycled Content



Measurement questions will bring focus on the role of innovation and emerging technologies... as well as technical issues around food contact materials

Next Steps

EU Green Deal

- Climate neutrality by 2050
- **Climate neutrality linked to circular economy ambitions**
- Sustainable product policy trailed, as well as EU industrial strategy and new CE action plan
- Textiles, construction, electronics and **plastics** highlighted for action
 - ***‘Consider legal requirements to boost the market of secondary raw materials with mandatory recycled content’***
- **Revisit waste shipments regulations**
- MS encouraged to use ecological tax reform

Circular Economy Action Plan (EU)

- Sustainable Product Policy initiative – Eco-design Directive
 - Durability, **reusability**, repairability
 - **Recycled content**
 - Remanufacture
 - **Restricting single-use** / premature obsolescence
 - Digital passports, tagging and watermarks
- **Packaging:**
 - **reduce overpackaging, design for reuse / recyclability**
 - **reduce complexity**
- **Plastics – mandatory recycled content; framework for bio-based and compostables**

Taxes on plastic

- **Italy: €450/tonne** (compostables exempt)
- **UK: £200/tonne on all plastic packaging with recycled content <30%**
- **Spain: €450/tonne tax on single-use packaging**
- **EU: €800/tonne of unrecycled plastic packaging - under consideration as a budgetary support measure**

Conclusions

- **Regulation and voluntary commitments are starting to drive one another**
- **Broad direction of travel seems clear**
 - Long-term, very high recycling rates
 - Systemic shift to reuse in some sectors
 - Increased recognition of role of circular economy in mitigating climate change
- **If not now then soon.... We will have fiscal instruments that align raw material costs with environmental externalities**



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