

The logo features the text 'arc21' in a serif font. 'arc' is dark blue and '21' is green. To the right of the text is a semi-circular arc of 18 green dots.

arc21

arc21

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TIM WALKER

CHIEF EXECUTIVE (ACTING)

**Circularity**  
is a way to achieve  
**sustainable**  
**consumption**  
**and production**  
and other interlinked  
**SDG goals**



# The problem with residual waste

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- NI councils collected **999,000 tonnes** of waste last year
- 510,000 tonnes was recycled / composted
- Most of the remaining 490,000 tonnes was **landfilled** or **exported overseas**
- 2019/2020: **235,000 tonnes** exported globally



# The problem with residual waste

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- Recycling rates have fallen recently, but the general trend is upwards (c.50%)
- The reality is that actual tonnages of waste continue to rise
- 2012/2013: 910,000 tonnes – total waste collected by NI councils – now c.10% higher



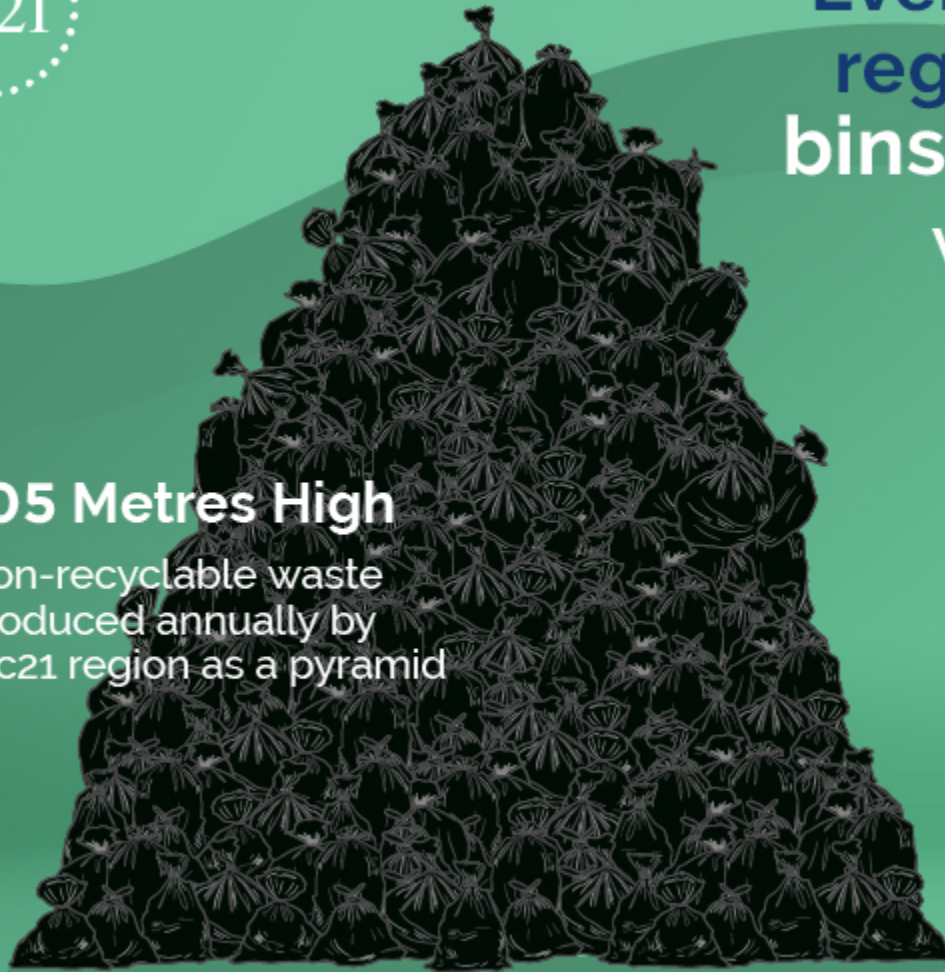


Every year households in the arc21 region produce **15 million black bins** worth of non-recyclable waste.

What does 15 million black bins worth of non-recyclable waste look like?

**105 Metres High**

Non-recyclable waste produced annually by arc21 region as a pyramid



(100m square base pyramid)

**28 Metres High**

Stormont Parliament Buildings

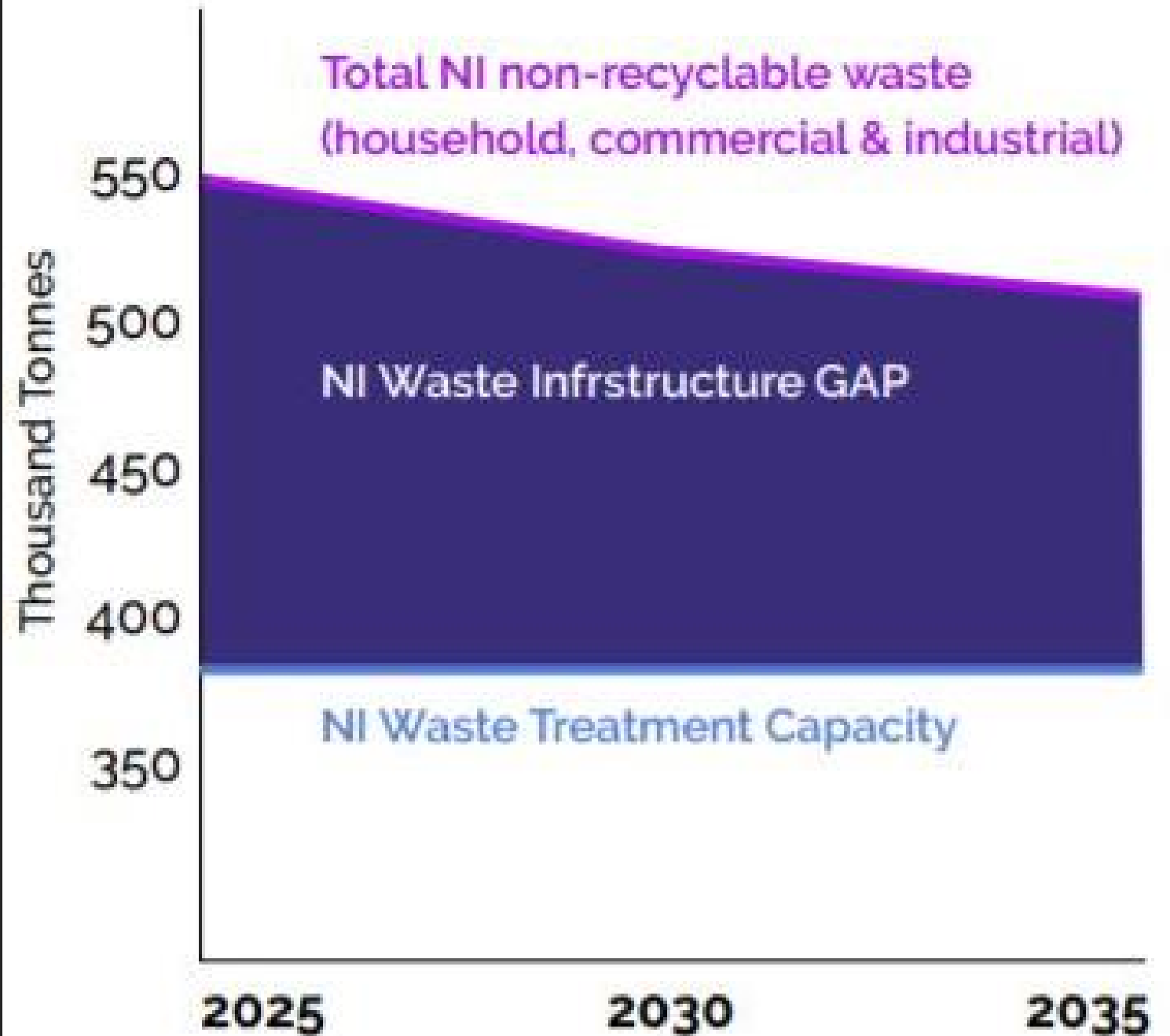


# NI Waste Infrastructure Gap

500KT of non-recyclable municipal and commercial waste every year for next 15 years

124KT waste infrastructure gap by 2035

Assuming 65% recycling rate, reliability of existing facilities and if arc21 develops Hightown Quarry



# Environmental costs – landfill

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- Methane from landfill sites is x84 more potent than CO<sub>2</sub> as a GHG
- Landfill sites are the least optimal option in the waste hierarchy
- No value retrieved – contrary to the Circular Economy
- Deeply unpopular with host communities

# Environmental costs – export

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- Contrary to the Proximity Principle
- Traceability & Supply Chain Issues
- International Waste Crime
- Paying to export resources for others to benefit from
- Moral Responsibility – it's our rubbish (and resource!)



# Financial Pressures

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**€32 per tonne**

tax applied to waste imports in key recipient market for NI waste – The Netherlands



**£16 million p/a**

estimated current cost to NI councils from exporting household waste



**£30 million p/a**

estimated current cost to NI councils from landfill taxes (c. £94 per tonne) and gate fees

# Policy Drivers

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## **Climate Change Committee**

- Phase out waste exports
- Ban bio-degradeable waste in landfill by 2025
- 70% NI recycling target by 2030

## **Circular Economy Package**

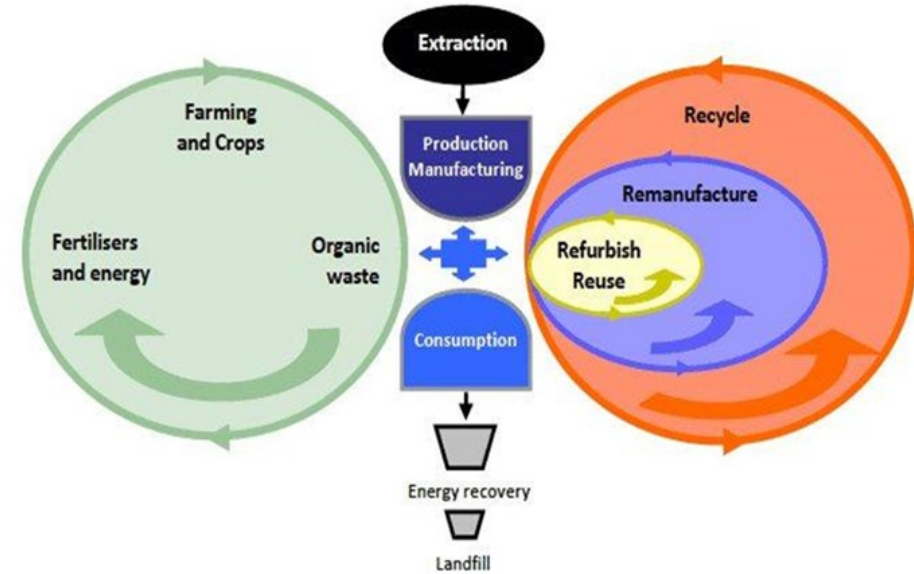
- 65% household waste recycling by 2035
- 70% packaging waste recycling by 2035
- 10% cap on landfill

# Transition

How long will it take to move from linear to circular economy?

Is the necessary infrastructure available in NI to facilitate this transition?

How long will this transition take?

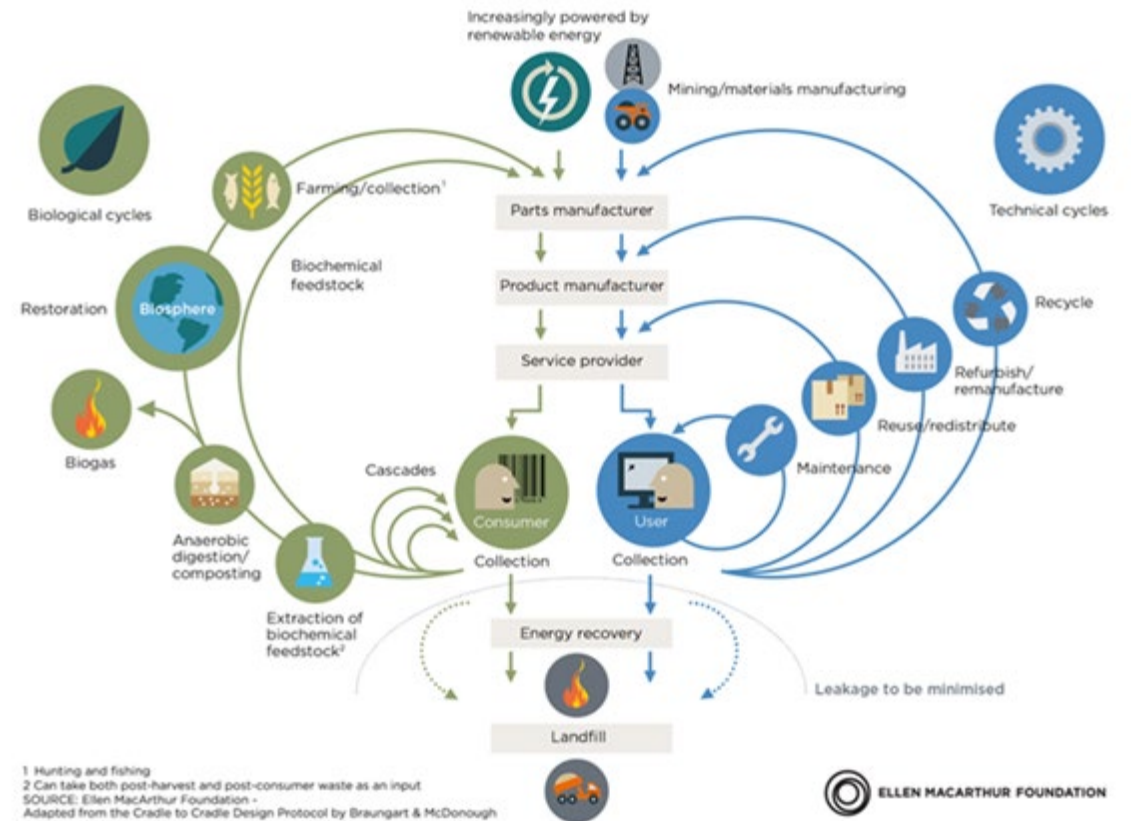


	2021	2022	2023	2024	2025 - 2027	2030
<b>ENVIRONMENT BILL ROYAL ASSENT</b>						
<b>PLASTIC PACKAGING TAX STARTS</b>						
<b>SCOTLAND DRS OPERATIONAL</b>						
<b>EPR PHASE 1 BEGINS</b>						
<b>CONSISTENCY ROLLOUT IN ENGLAND BEGINS</b>						
<b>EPR PHASE 2 BEGINS</b>						
<b>'REST OF UK' DRS BECOMES OPERATIONAL</b>						
<b>EXTENDED PRODUCER RESPONSIBILITY FOR PACKAGING</b>	<ul style="list-style-type: none"> <li>Consultation on EPR</li> <li>Development of Final Impact Assessments</li> <li>Launch Scheme Administrator procurement</li> <li>Regulate for data reporting required for phase one EPR (subject to consultation)</li> </ul>	<ul style="list-style-type: none"> <li>Producers start collecting packaging data</li> <li>Regulations in place for EPR</li> </ul>	<ul style="list-style-type: none"> <li>Producers report against new packaging formats</li> <li>SA appointed and starts to mobilise</li> <li>First payments made to local authorities</li> <li>Potential mandatory takeback of disposable cups (for large sellers)</li> <li>Producers compile data for phase 2 EPR (modulated fees)</li> <li>Producers assess packaging for recyclability</li> </ul>	<ul style="list-style-type: none"> <li>EPR phase 2 becomes operational - modulated fees and business payments start</li> <li>Materials specific recycling targets start</li> </ul>	<ul style="list-style-type: none"> <li>Packaging re-use targets from 2025</li> <li>Recyclability labelling mandatory by end 2026/27</li> <li>Potential extension of mandatory cup takeback to all sellers</li> </ul>	<ul style="list-style-type: none"> <li>Report on packaging recycling targets (2030)</li> </ul>

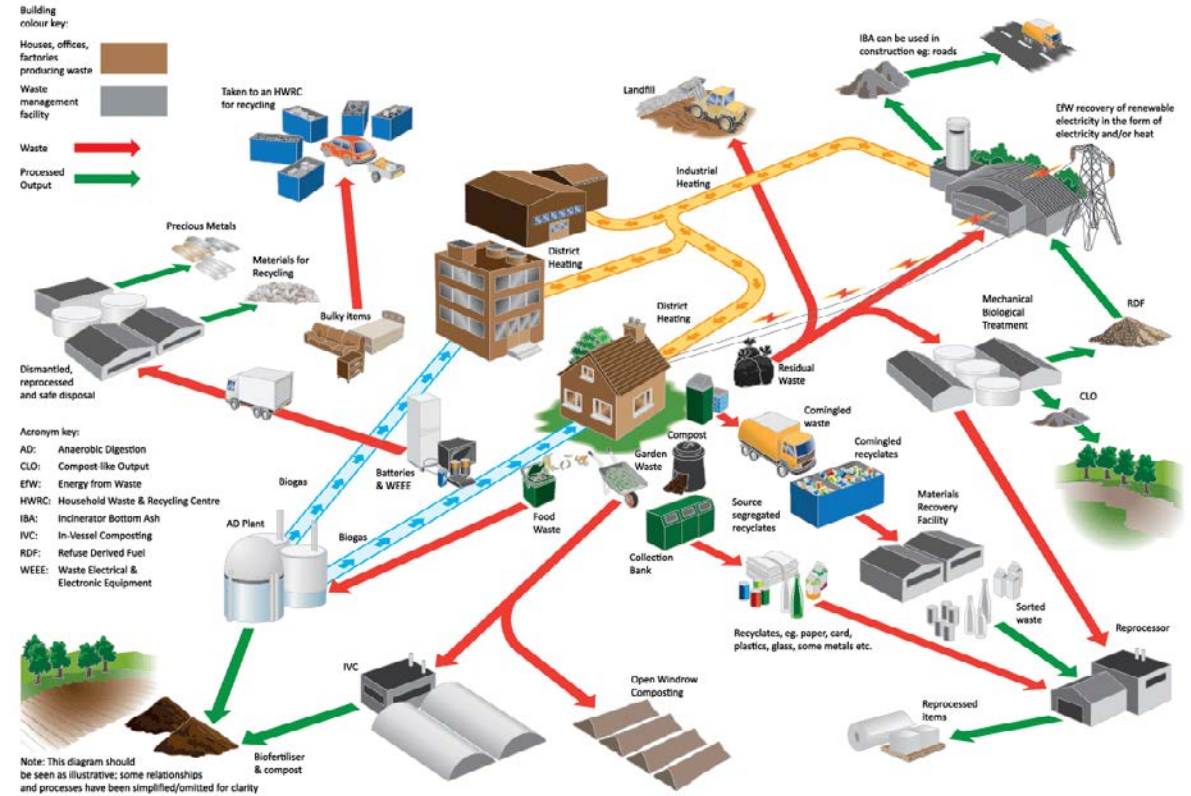
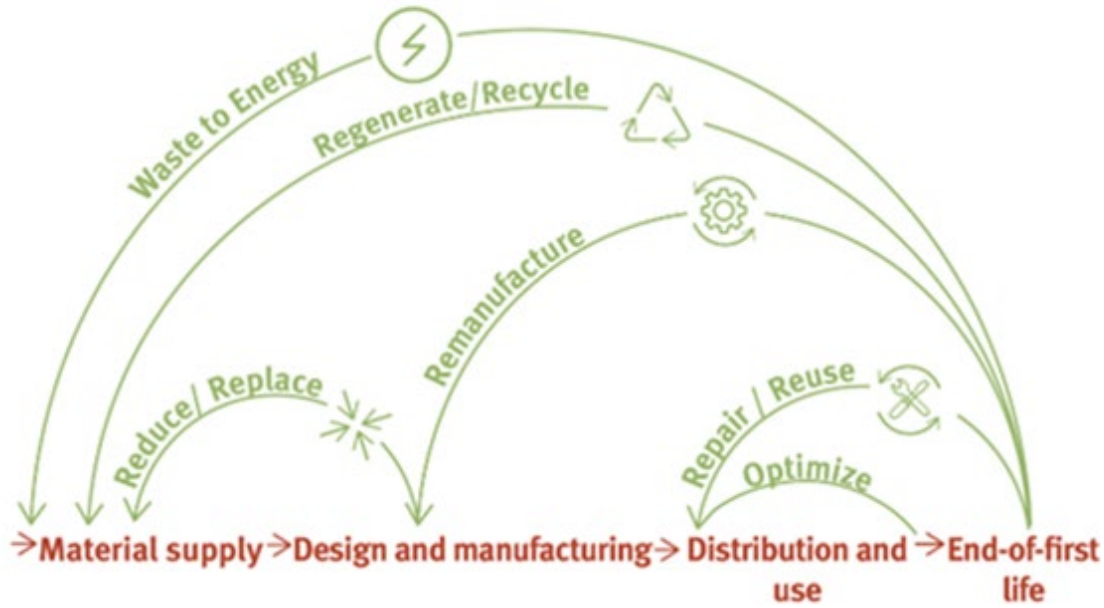
# Systems Thinking

*"Systems thinking is the process of understanding how component parts... can best be understood in the context of relationships with each other and other systems... Systems thinking focuses on cyclical rather than linear cause and effect."*

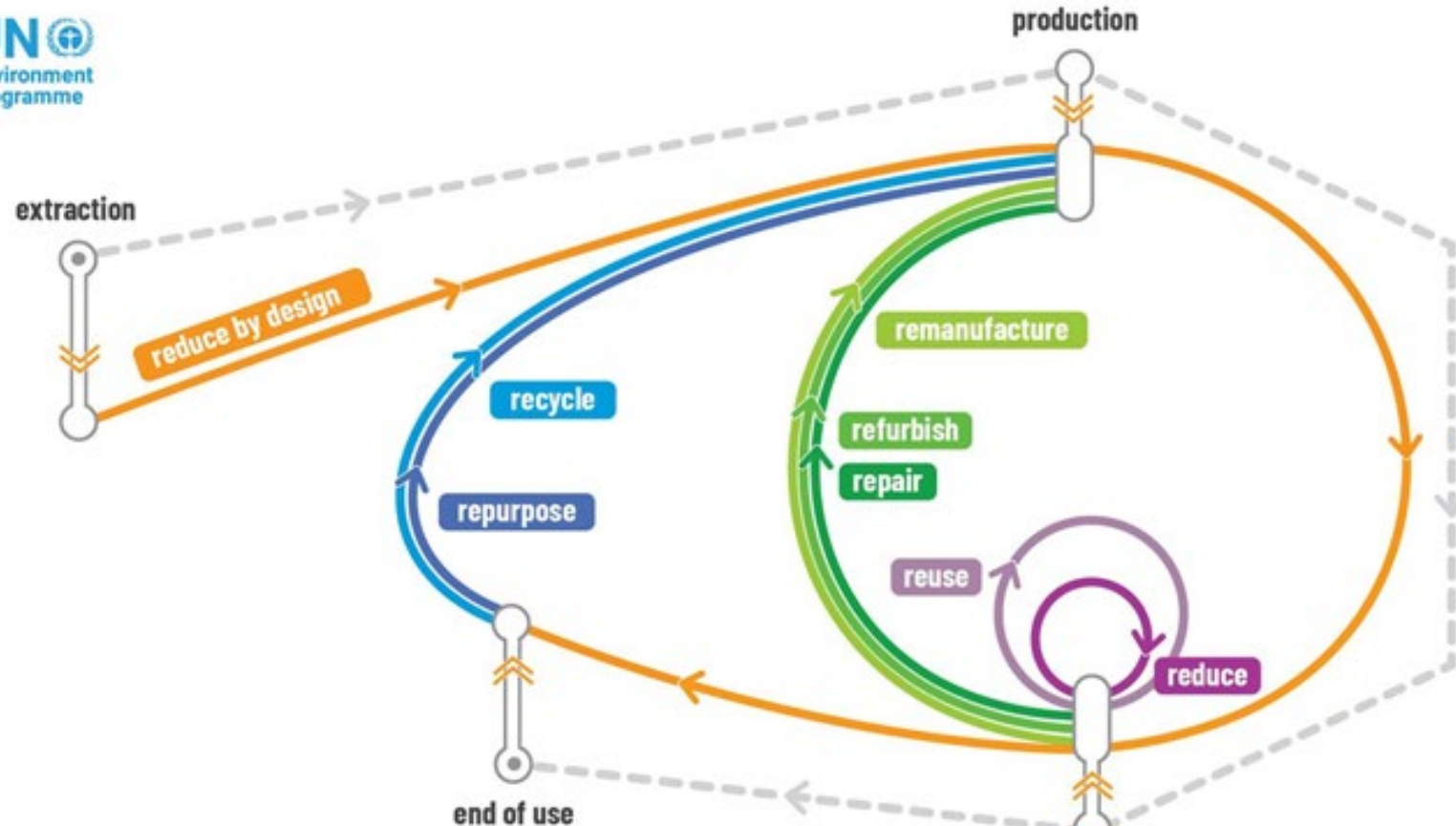
CIRCULAR ECONOMY - an industrial system that is restorative by design



- Linear supply chain
- Circular economy practices



# Resource Management Approach

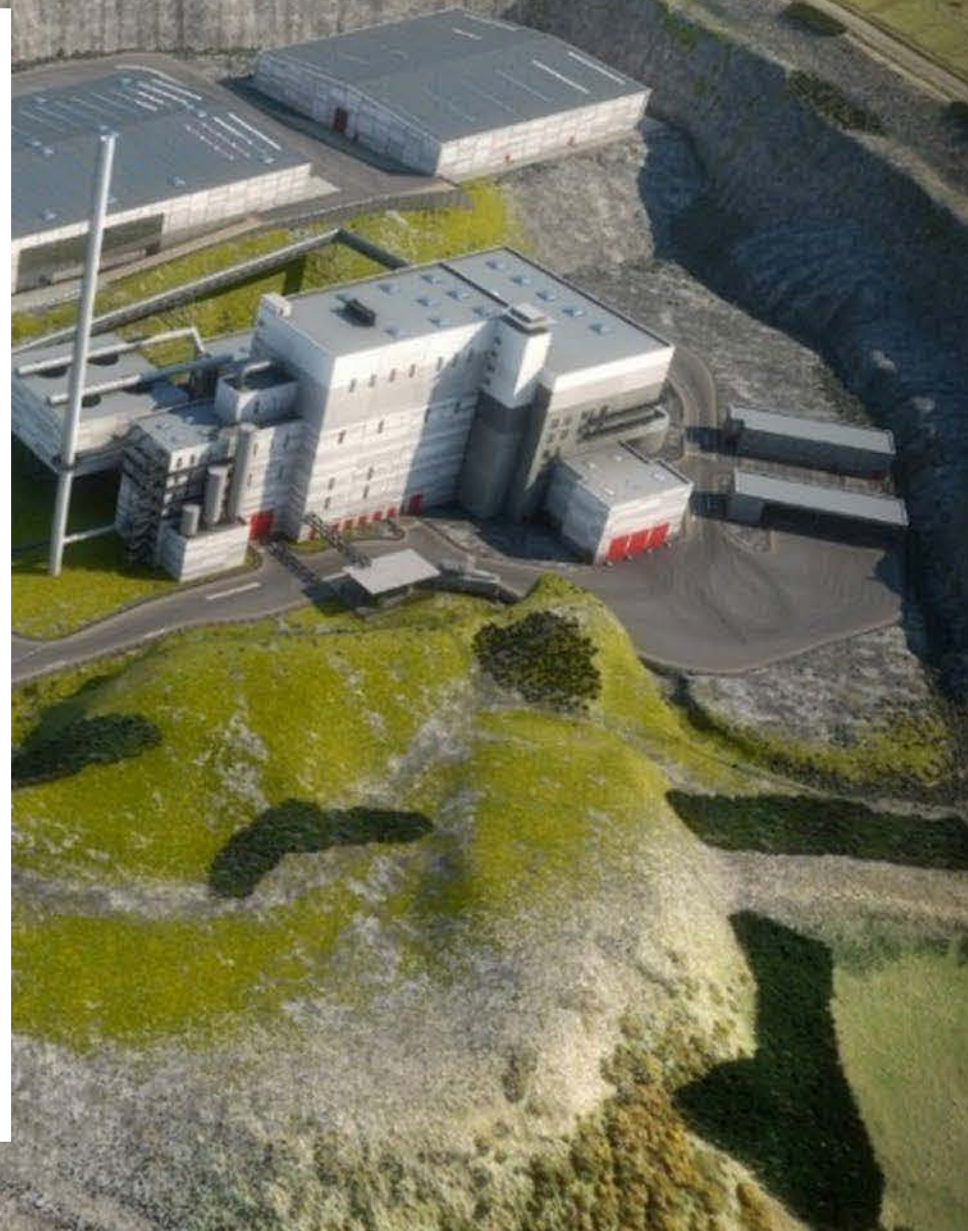
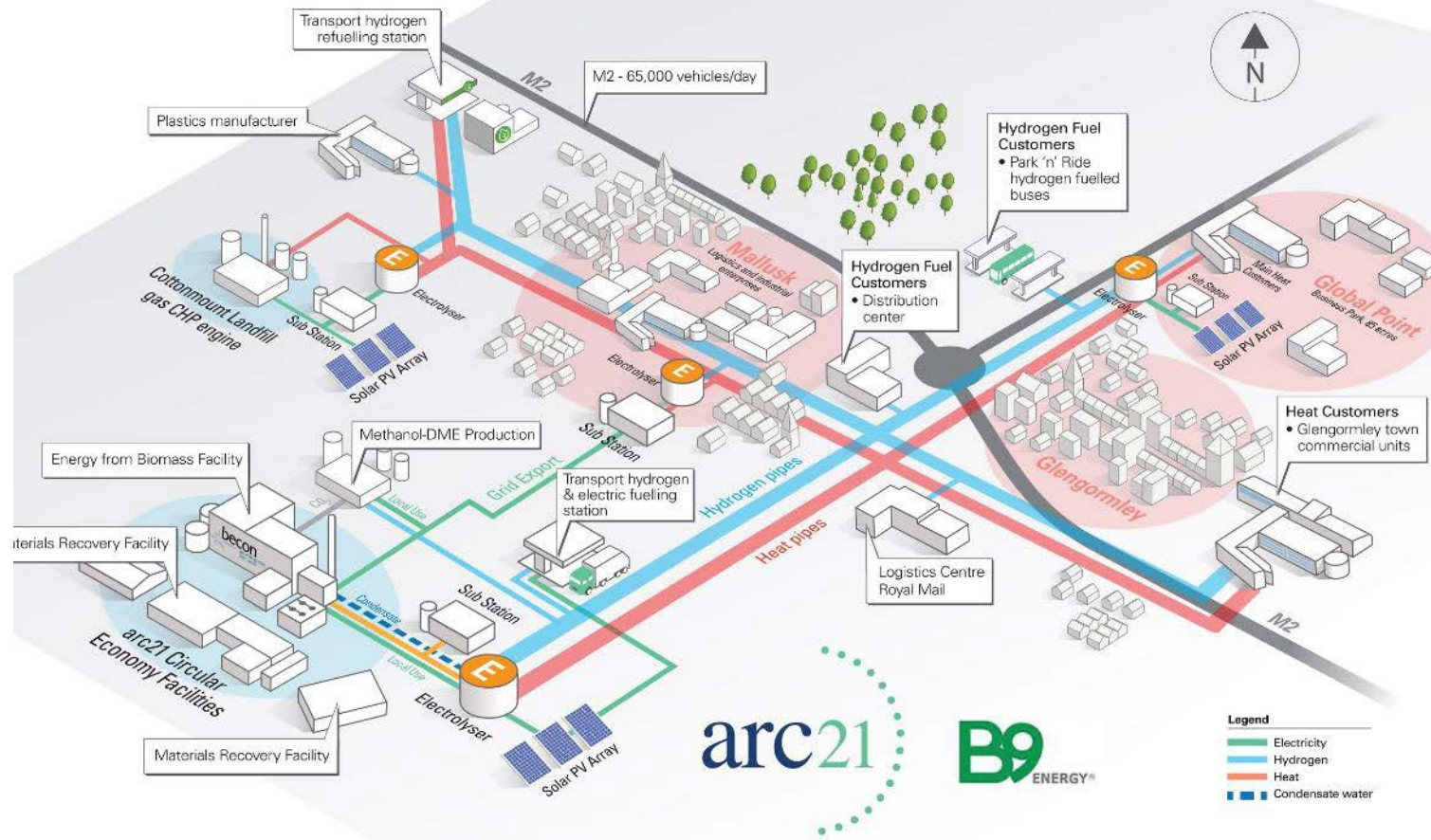


Circular economy processes

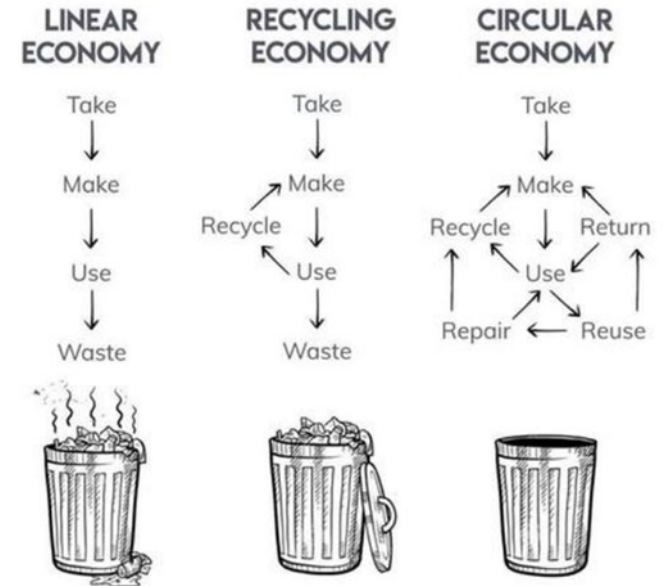
- Guiding principle
- Business to business
- User to business
- User to user
- Linear economy model

# Mallusk - Glengormley - Corrs Corner

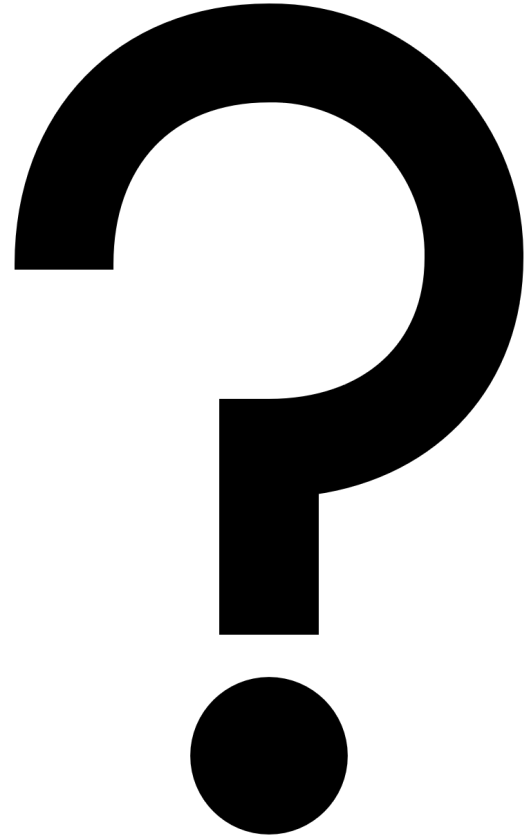
## Decarbonisation - Enabling Clean Growth



*“Circular Economy – one that values resources, cuts carbon emissions & reduces waste” – Dr Adam Read, External Affairs Director, Suez & CIWM President (2021)*







Any  
Questions?

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