Reuse & repurposing in decommissioning

Opportunities & challenges in-practice

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So what's the big deal?

- 600 installations set to be decommissioned next 30-40 years[1]
- Up to 840,000 tonnes of material - 5 500km pipelines, 1 600 wells and ~40 000 mattresses - will be decommissioned in the next decade alone[1]
- *~95% (by weight) technically recycled[2]*
- **What about creating more value?**

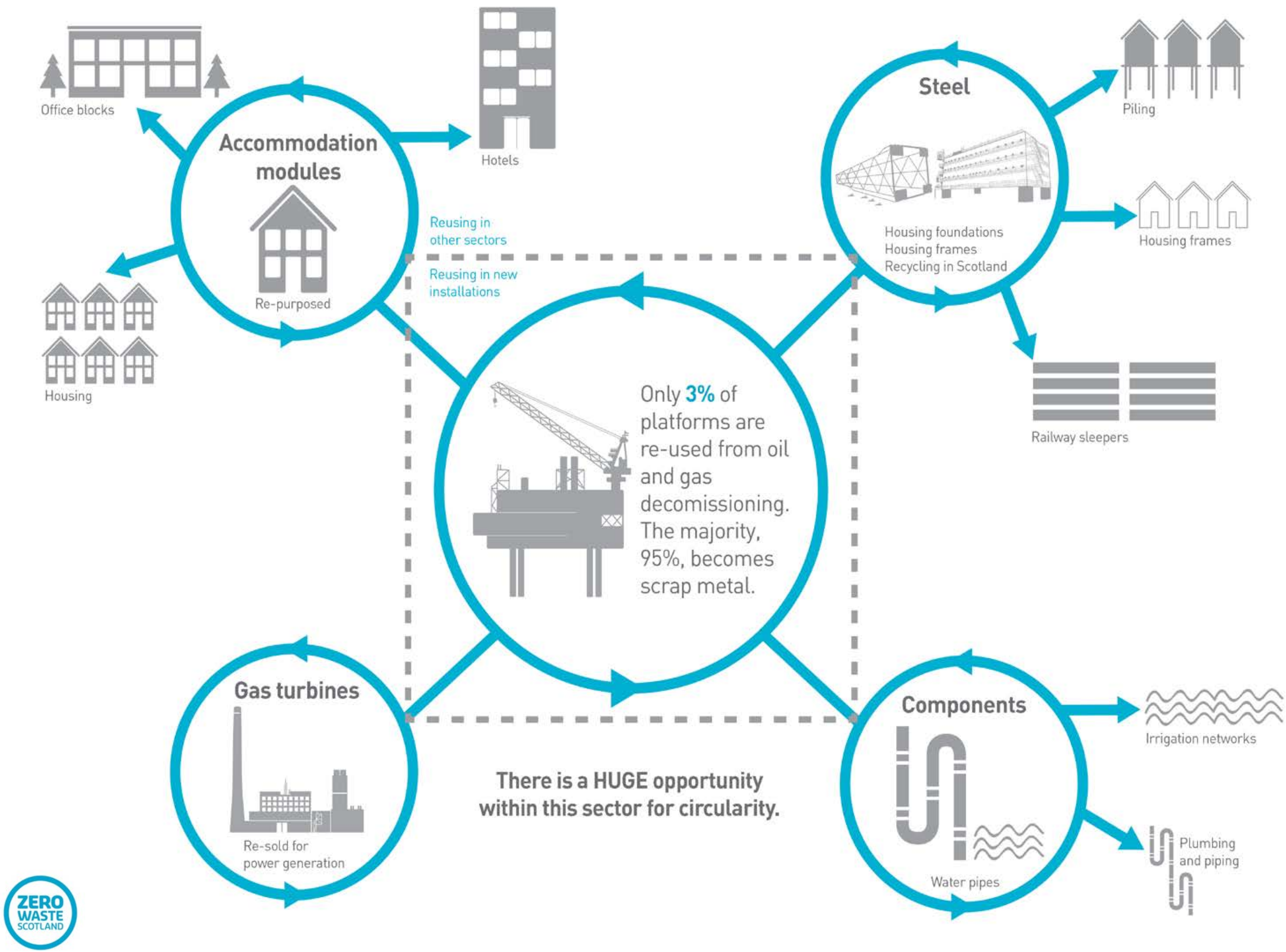
[1]Oil & Gas Authority UK, 2017; [2]Optimat 'Offshore Oil & Gas Decommissioning – A Strategy for Zero Waste Scotland', 2015

Why Zero Waste Scotland?

Aim

Our goal is to help Scotland realise the economic, environmental and social benefits of making best use of the world's limited natural resources.

We're funded to support delivery of the Scottish Government's circular economy strategy, *Making Things Last*. We receive additional funding to support the EU's 2020 growth strategy.


Accommodation modules
Re-purposed
Office blocks
Hotels
Housing
Reusing in other sectors
Reusing in new installations
Only 3% of platforms are re-used from oil and gas decomissioning. The majority, 95%, becomes scrap metal.
Steel
Housing foundations
Housing frames
Recycling in Scotland
Piling
Housing frames
Railway sleepers
Gas turbines
Re-sold for power generation
There is a HUGE opportunity within this sector for circularity.
Components
Water pipes
Irrigation networks
Plumbing and piping
ZERO WASTE SCOTLAND

What does this look like in practice?

Retained Ownership


Source: Navantis

Improved monitoring


Source: BBC

Direct Reuse


Source: AE Yates Group

Repurposing

What does this look like in practice?

Business opportunities we're supporting

- Recovering and resale of subsea umbilicals
- Recovery, recertification and resale of high-value O&G components (spares & decommissioned)
- Repurposing waste tyres as pipeline protectors
- (Subsea) storage-tank monitoring & preventative maintenance
- Decom supply-chain mapping technology
- Expanding tubular repurposing market

What does this look like in practice?

Business specific challenges

- SEPA concerns about reuse of “waste”
- O&G industry expertise; little external industry knowledge
- Lack of sight & information on decommissioned assets
- Desire for “path of least resistance” i.e. business as usual
- Size

What does this look like in practice?

General reuse challenges in O&G

- Lack of decom information (type, nature & volume)
- Industry reluctance (recertification, liability concerns)
- Lack of reuse information (cost-benefit; routes to market)
- Focus & timing (from operators & decom firms)

What does this look like in practice?

Opportunities going forward

- OGA target of 35% decom cost reduction
- Newly tested “pain and gain share” contracting models (e.g. Veolia-Peterson)
- Learnings from abroad e.g. Nexstep in the Netherlands
- 840 000 tonnes of onshored material 2017-2025

ZWS supporting new opportunities…

- **Circular Economy Business Support Service**
  - Up to 30 days free business support for SMEs & consortia; technical & commercial viability, route-to-market etc.
  - www.zerowastescotland.org.uk/circular-economy/business-support-service

- **Circular Economy Investment Fund**
  - £18 million grant funding for SMEs & consortia
  - £50,000 to £1,000,000 for transformational projects; commercialisation/trial reuse & repurposing projects
  - www.zerowastescotland.org.uk/circular-economy/investment-fund

Ultimately…

- This is about making the most of a one-way process
- This is about increasing the economic benefits to firms involved in decommissioning
- This is about reducing costs & uncovering new revenue
- This is about operating smarter and more sustainably; not throwing away valuable assets and resources
- This is about good business practice, now and in the future

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