

Circular Economy

Emerging Sector Insight

Within, we explore the emerging sector insight on Circular Economy (CE) in Wales. It was produced in line with the [Circular Economy Hotspot](#) to be held in October 2024. The aim is to support the Welsh Government's Circular Economy initiative and establish cross linked engagement with industry and government. As part of this, CEWales launched a [newsletter request](#) to its' members for ideas on sourcing best practice and site visit recommendations.

1. [Best Practice \(BP\) – Mindsets, Behaviour and Approaches](#)
2. [Site Visit/BP - Project Recommendations - Case studies](#)
3. [Signposted Links](#)

1.0 Best Practice (BP) – Mindsets, Behaviour and Approaches

- Adopt the full definition of a Circular Economy mindset which includes an awareness of the systems (connected/linked) thinking needed to move CE beyond just waste management/recycling. CE is cross – industry connected and requires early engagement, collaboration, developed circular materials market, value-based metrics/benchmarks and importantly awareness on a systems level. This may include business and staff upskilling making use of fully funded programmes such as [CEIC's Clean Growth Programme](#).
- Engage in early advice with circular economy advisors as part of bidding to establish realistic timeframes, cost and delivery connections.
- Undertake early engagement with low tier supply chains to close the loop.
- Adopt a whole value approach considering the seven well-being goals and five ways of working as found within the Well-Being of Future Generations Act.
- Design and champion projects that embed circular economy principals as found within the recent [ISO 59004:2024](#) Circular Economy – Vocabulary, Principles and Guidance for implementation and [Circular economy metrics for buildings | UKGBC](#) .
- Accommodate outcomes-based analysis in procurement and project initiation to ensure connected value. For example, sites can recycle steel to transform it for use back into the built environment projects, can re-use scraps but assessment of this kind of value add to projects is still not part of procurement. Procurement also key enabler to connect the dots between resources in Wales in the short and longer term and create links in supply chain.
- Make connections across policy landscapes. The Welsh Government identifies circular economy as a key part of its [Economic Action Plan](#) and its [Natural Resources Policy](#). Resource efficiency is also a key component of the legislative framework in Wales included in the 'Prosperous Wales' goal under the [Well-being of Future Generations \(Wales\) Act 2015](#).
- Leadership – Inclusion of CE considerations and connected value in any strategic decision-making as tied to/representative of values within the Act mentioned above.

2.0 Site Visit/BP - Project Recommendations - Case studies

Snapshot Information from recent CEWales Awards + Member Insight.

1. **Highfields Passivhaus – A Cardiff Living Project** - The Whole Life Carbon Assessment benchmarking is now also being used to inform the targets for future projects and WLCA and Circular Economy Assessments have now become standard requirements on all Cardiff Living projects
2. **Eastern High – Net Zero Carbon Ready Development – Cardiff** - In addition to the above, we are currently undertaking Whole Life Carbon Assessment of the houses and Addison House and a Circular Economy assessment. The outputs from these will be used to inform the construction of future phases in the project and other projects within Cardiff Living.
3. **South Point Primary School – Barry** - Sustainable materials |All building materials used have an inherently high degree of recycled content with ability to be re-purposed, deconstructed or recycled at end of life. Selection of environmentally friendly materials, including solvent free paints which contain lower Volatile Organic Compounds. Design specifications have promoted the circular economy and considers the whole life, ensuring materials can be recycled and re-used in future. By ensuring an efficient structure and shape we have significantly reduced the material density/have eliminated materials altogether. By using local suppliers/manufacturers we have reduced the construction footprint and minimised travel distances and in-turn carbon emissions.
4. **Willows High School – Cardiff** – Reuse of existing steel.
5. **Plaza Redevelopment – Neath/Port Talbot** - The scheme was the first in the country to participate in a Circular Economy initiative.
6. **Global Centre of Rail Excellence – Cardiff** – It gives some practical examples of how a once industrial Open Cast Coal Mine can be repurposed with significant quantities of material (circa 2 million m3 of soil and 2km of old rail track) are recycled to begin creating a UK and Europe wide leading edge facility.

3.0 Signposted Links

Constructing Excellence in Wales (CEWales)

[Constructing Excellence in Wales :: Circular Economy \(cewales.org.uk\)](https://cewales.org.uk) - Constructing Excellence in Wales has been working to explore the opportunity for the built environment sector from circular economy.

[The Plaza Redevelopment – Port Talbot - Constructing Excellence](#) – The project involved significant repair and accurate restoration of the frontage, and demolition and replacement of the rear.

[Constructing Excellence in Wales :: ISO 59004:2024 Circular economy — Vocabulary, principles and guidance for implementation \(cewales.org.uk\)](https://cewales.org.uk) - The linear model of the global economy—characterized by extraction, production, use, and disposal—has led to significant environmental challenges, including resource depletion climate change and biodiversity loss. ISO 59004 addresses these issues by advocating for a circular economy model, which emphasizes the sustainable management and renewal of natural resources.

[Constructing Excellence in Wales :: Last chance for this year’s Clean Growth Programme \(cewales.org.uk\)](https://cewales.org.uk) - The Clean Growth Programme supports businesses and third-sector organisations of all sizes to adopt CE principles. By developing a network of likeminded sustainability champions, the fully-funded programme drives CE capabilities and enables clean and sustainable growth across a wide range of industries.

UKGBC

[Trends in Sustainable Solutions in the Built Environment 2023 | UKGBC & https://ukgbc.org/our-work/topics/circular-economy/](https://ukgbc.org/our-work/topics/circular-economy/) - Globally, the built environment currently accounts for around 50% of



global resource extraction. In the UK, construction, demolition and excavation generated 62% of total UK waste in 2018. Transitioning to a circular economy is therefore an increasingly important topic, with novel means to promote circular economy principles flooding into our industry.

[Circular economy metrics for buildings | UKGBC](#) - A deep dive into best practice approaches for measuring circular economy principles in the built environment by the Circular Economy Forum.

Welsh Government

<https://www.gov.wales/recycling-waste> & [Towards Zero Waste \(TZW\)](#) - A circular economy strategy for Wales will be published in 2020. It will also build on the current strategy.

Industry Organisations

[RICS Sustainability Report 2023](#)

[Built environment and the circular economy \(ellenmacarthurfoundation.org\)](#)