



## Environment and Energy Board

<b>Date</b>	7 <sup>th</sup> December 2022
<b>Report title</b>	West Midlands Circular Economy Routemap Update
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### Recommendation(s) for action or decision:

#### The Environment Board is recommended to:

- 1) Note the progress made in implementing the Circular Economy Routemap.

#### 1. Purpose

To provide an update to the Board on the progress of the West Midlands Circular Economy Routemap since it was approved in September 2021.

#### 2. Background

- 2.1 A circular economy is a system that designs out waste and pollution, keeping products and materials in use for as long as possible and regenerating our natural systems through economic activity. It is much more than a sophisticated term for recycling. Rather than depend on linear and extractive, wasteful processes, a circular economy encourages repair, reuse and regeneration of resources and materials, as well as a transition to renewable energy. Encouraging more circularity in our economy will be essential for the region to achieve its ambition of net zero carbon emissions by 2041.
- 2.2 In support of our ambitions for a more circular economy, the WMCA published a Circular Economy Routemap (<https://www.wmca.org.uk/media/5134/wmca-circular-economy-routemap-final-full-document.pdf>) on 17th September 2021. The Routemap outlined a vision for how the region can become more circular, prioritising three sectors in the first instance:



- Manufacturing – the sector with the largest carbon footprint in the West Midlands.
- Construction – which is the largest producer of waste by volume in the region.
- Food – where the region is home to international expertise in food manufacture, as well as a thriving third sector in food and sharing.

2.3 As agreed by the WMCA Board, the Routemap's implementation focuses on the production of business cases for:

- An industrial symbiosis programme – to facilitate materials recovery and business investment in key regional sectors and locations.
- A Zero Waste Construction Hub pilot – to support the recovery of usable materials in the construction sector.

### 3. Industrial Symbiosis

3.1 Industrial symbiosis is an approach to industrial decarbonisation, that involves the direct reuse of one company's waste streams, as another's raw materials, and creating a closed loop. As well as supporting industrial decarbonisation, industrial symbiosis can generate significant cost savings for businesses, increasing business resilience and competitiveness in the process. The West Midlands has been identified as one of four industrial symbiosis hotspots in Europe by the SCALER project, demonstrating the opportunity that exists in the region for this approach.

3.2 In March 2022, the WMCA appointed the Useful Projects consultancy, with support from International Synergies (global leaders in industrial symbiosis and delivery lead form National Industrial Symbiosis Programme in the early 2000s) and economic consultants, MetroDynamics, to develop a business case and implementation plan for a programme in the region.

3.3 Following engagement with the private sector, universities and research councils, and partners in central and local government, we have created a business case for a programme with a blended delivery model. This would include a virtual network, as well as potential for place-based initiatives:

1. An appointed facilitator team with deep knowledge of industrial symbiosis and experience in delivering such programmes would work with the private sector across the WMCA area to create a regional virtual network of waste exchanges that could take place between all sectors.
2. Place-based activity and investments would be encouraged in five strategically important priority sectors:
  - Food waste
  - Composite materials
  - EV battery manufacture
  - Materials for land remediation
  - Cast metal foundry sand

3.4 Taking this approach to the delivery of the programme will bring maximum benefit to existing businesses in the West Midlands, whilst ensuring that the region's economy is prepared to exploit the opportunities of the future. Modelling conducted for the business case shows that the proposed programme would create an annual GVA uplift of £1.4m, divert up to 14,000 tonnes of carbon per year, and create of safeguard 50



jobs. The proposal has been costed at £3.1m over five years. Developments in priority sectors would lead to additional investment opportunities, brought about by separate business cases and funding bids. This approach has been designed to be complementary to the wider industrial decarbonisation work that is building on the industrial cluster decarbonisation approach of the Repowering the Black Country initiative - <https://www.blackcountrylep.co.uk/our-strategy/place/repowering-the-black-country/>.

3.5 Now that the programme proposal has been finalised, activity will focus on attracting funding to the programme. The regional allocation of UKSPF, and the industrial decarbonisation elements of the TDD, have been identified as potential sources of funding. We are also continuing to engage with Defra and BEIS, to understand their interest in supporting the programme. In November 2022, the WMCA was approached by DEFRA officials on the potential of mentioning the proposal in the finalised Waste Prevention Programme for England.

#### 4. **Zero Waste Construction Hubs**

4.1 The construction sector is responsible for around 55% of all waste produced in the region and it is estimated that 13% of materials that arrive on building sites are never used. With over 220,000 new homes and major infrastructure projects planned, embedding circularity within construction can unlock new opportunities, generate cost savings and build resilience within supply chains.

4.2 One way in which we can start to reduce construction waste is through the Zero Waste Construction Hub concept, which would see a materials recovery hub operating in the West Midlands, to reclaim usable materials from building sites which would otherwise be sent to landfill, and sold on to small trades and DIYers, or donated to community groups. The concept would seek to reduce the amount of waste sent to landfill.

4.3 Useful Projects, with support from MetroDynamics, were appointed in August to support the WMCA in creating an investible model for a Zero Waste Construction Hub in the region. The project has so far focused on understanding the scale of the opportunity for the region, as well as analysing the behavioural, technical, and regulatory barriers to the recovery and reuse of materials. This will lead to the development of a data driven, costed, business plan with clearly mapped benefits.

4.4 The project to develop the business case and delivery plan started in October 2022 and is scheduled to be completed in March 2023. A key part of the project includes engagement with industry partners, and it is anticipated that a partner or partners will be identified to co-lead on the delivery of the proposed model for a zero waste construction hub. This will also help to identify and secure funding and timescales for implementing a pilot hub.

#### 5. **Other activity**

##### 5.1 **Repurposing to Zero**

- 5.1.1 Building repurposing is the process of reusing an existing building for a purpose other than what it was designed for. Repurposing differs from retrofit, where the building continues to serve its original purpose in a more efficient manner. Encouraging a 'reuse first' approach to existing built assets will be important for the region to achieve its carbon ambitions, as existing buildings have large amounts of carbon embodied in their structures. The reuse of existing buildings can also have social and economic benefits for the region, through the regeneration of local centres, and by enabling a more flexible and strategic approach to the use of the built environment.
- 5.1.2 Following a successful bid to the West Midlands Innovation Programme, as part of a partnership with the Innovation Alliance for the West Midlands, the Environment Team has been leading on the delivery of a project titled 'Repurposing to Zero'. The project engaged partners in the public and private sectors to understand the commercial and regulatory barriers to repurposing buildings, and completed data analysis to determine the scale of the opportunity for bringing buildings back into use in the West Midlands.
- 5.1.3 After confirming the feasibility of the approach, the project has created a 'Repurposing to Zero' framework (due for publication in January 2023) that can be used to showcase best practise guidance for approaching the reuse of existing spaces. In doing so, the framework will help to capitalise on the opportunity present in the West Midlands.
- 5.1.4 The framework is in its final stages of design, before being made public. We will share this with stakeholders involved with the project, including local authority planning officers. After the project has been completed, further work will be undertaken to understand how the West Midlands can create a regulatory and fiscal environment that supports the reuse of buildings.

## **5.2 Circular community work**

- 5.2.1 The Environment Team has also worked with the Commonwealth Games, as part of the Circular Economy Action Group, to create a circular legacy for the Games. This legacy has included the donation of media vans to the Active Wellbeing Society for use as mobile share shacks, and the Commonwealth equipment giveaway which will see 16,000 items being donated to community groups, schools, and sports clubs in the region. We will be looking to extend our focus on community initiatives for the circular economy programme in 2023/24 and we are currently identifying the best approach for this, for example, product repair or sharing initiatives and supporting toolkits.

## **6. Next Steps**

- 6.1 Work will continue with the priority areas agreed by the WMCA Board to ensure that these proposals move beyond the concept phase to create tangible benefits for the West Midlands. With the business cases produced, our priority for next year will be securing funding and investment to begin implementation.



6.2 We will also be focusing on more community-centred circular economy activity, building on some of the successes from the Commonwealth Games in developing better sharing systems for communities across the region.

## **7. Financial Implications**

There are no immediate finance implications arising from this paper.

## **8. Legal Implications**

There are no immediate legal implications arising from this paper.

## **9. Equalities Implications (\*)**

There are no equalities implications arising directly from this report, as it is an update on work to date. The work carried out as part of the Circular Economy Routemap's implementation contributes to the achievement of the WM2041 objective, which will have significant social and economic benefits for the region.

## **10. Inclusive Growth Implications**

There are significant co-benefits related to well-being and economic opportunity, including jobs and skills, linked to the different projects outlined in this report.

## **11. Geographical Area of Report's Implications**

The focus of the activity is on the constituent local authorities of the WMCA. Some of the work will inevitably benefit from a broader geographical reach to the non-constituent authorities including the industrial symbiosis programme.

## **12. Other Implications**

None.

## **12. Schedule of Background Papers**

Note; (\*) denotes mandatory field