

**Written evidence submitted by the Chartered Institution of Wastes Management, WAMITAB  
and the UK Resources Council**

1. Response from the [Chartered Institution of Wastes Management \(CIWM\)](#), [WAMITAB](#) and the UK Resources Council (hereafter known collectively as CIWM). CIWM welcomes the opportunity to respond to this call for evidence and have consulted a number of our members, trainers, students and other sector representatives to obtain their professional feedback, which has formed the basis of this submission. An Executive Summary has been attached separately

### Overview of the Resource and Waste Sector

2. The resources and waste management sector in the UK turns over an estimated £9 billion every year and carries out a number of activities including waste collection, treatment, recycling, reprocessing, disposal and the generation of energy from waste (Environmental Services Association, 2016; Jones and Comfort, 2018).
3. Waste services are used by every household and business across the UK and the sector provides a **universal service**, collecting and safely managing a wide range of materials and products from food waste to discarded electronic and electrical equipment, chemicals and healthcare waste. An essential utility, the sector protects the environment and improves the UK's resource productivity by securing valuable materials to enable their transformation from waste to new feedstocks for industry and contributes to achieving net zero emissions.
4. In addition to being a dynamic growth sector in itself, providing some 150, 000 jobs and circa £7bn GVA, the waste and secondary resource management industry has an important role to play in improving resource availability and security across the UK economy through the supply of the quality secondary raw materials and feedstocks including:
  - steel, aluminium, plastics, paper, and glass from household and business waste (the use of which often deliver significant energy savings in the manufacturing process compared to virgin feedstocks);
  - rare and expensive metals and minerals from waste electronic and electrical equipment, often needed for low carbon technology solutions;
  - electricity, heat, and biofuels through a range of different energy-from-waste technologies;
  - soil conditioners and fertilisers through a range of biodegradable waste treatment processes; and
  - feedstocks for other aspects of the bioeconomy.

In this context, the sector has an ever increasing and important role to play in supporting the UK green recovery and longer term decarbonisation across the UK economy.

### Skills and jobs

5. According to research by [Energy and Utility Skills \(2017\)](#), the UK resources and waste sector employs 134,300, most of whom are frontline staff. As well as the increasing demand for qualified staff to enable resources and waste to be better managed in the period to 2050, it is worth noting that following EU Exit and new immigration controls, some 10% of these roles will need to be filled by new UK-based recruits.
6. In 2012, it was estimated that 18% of the UK resources and waste sector workforce held no qualifications (Energy and Utility Skills, 2012), and this has not changed in more recent years. However, the range of advanced treatment methods now available coupled with increasing

technological advancements and more specific legislation are placing greater demands on waste operators to ensure their workforce possesses the right skills, knowledge and understanding to protect human health and the environment, and drive up value from the materials that are managed.

7. These changes have also created greater labour demand for individuals to be qualified at Levels 6 or above (i.e. requiring a degree). This demand has been linked to increasing need to test, sample and analyse waste streams/outputs, as well as a greater focus on processing, recycling and energy recovery (Energy and Utility Skills, 2017). This demand is expected to grow significantly in the next 5 to 10 years as more of our waste streams are segregated for secondary and tertiary use.
8. It is likely that the UK resources and waste sector will continue to require more multi-skilled workers as businesses diversify into other areas such as energy generation (Energy and Utility Skills, 2017), power production, plus fuels, chemicals and nutrient provision. However, this could prove challenging as the aging profile of the workforce suggests that the UK resources and waste sector has the potential to lose valuable technical knowledge and skills in the coming years unless careful succession planning is put in place.
9. At the opposite end of the skills spectrum, there has been very little research or reference to educating operative level staff across the UK resources and waste sector. The only skills challenge identified in recent research was that EU Exit (and the Immigration Bill) could have a significant impact on the recruitment of lower skilled occupations across the UK resources and waste sector due to restrictions on migration (Energy and Utility Skills, 2017). This will place greater pressure on the UK labour market, as identified earlier.
10. The UK resources and waste management sector has a significant contribution to make in supporting the creation of additional green jobs, not only those directly created in waste and resource handling, but in the downstream and upstream sectors that are fuelled by our materials or who provide services to our sector. The successful transition from waste to resource management will be dependent on how our sector can work holistically with other industries and supply chains to ensure that they're making the right choices about the materials used and what happens at end of life to their products and packaging.

## Specific questions to be answered

### What estimates are there for the jobs required to meet the pathway to net zero emissions, by sector, and other environmental and biodiversity commitments?

11. CIWM believes that the pathway to net zero relies on collaboration. The UK resource and waste management sector will need to work across **ALL** sectors and supply chains to ensure that sector professionals can influence choice of materials, improve end of life outcomes, and ultimately drive materials up the waste hierarchy. Householders will also play an important role and resource and waste management sector professionals will have a role in influencing sustainable consumption patterns.
12. Many net zero transitions will be undertaken by other sectors but ultimately most materials and products come to the waste sector for management. For example, the transition to electric vehicles will require end of life vehicle specialists to depollute scrapped vehicles, develop recycling solutions for the batteries they use, and maximise reuse and repair options. Future waste streams that will arise due to net zero transition are also likely to include wind turbines, solar panels and heat pumps, as well as new and innovative materials. It's important that the resource and waste management sector can influence the design of products so that they can be made more circular and retain greater value at end of life.
13. A [report](#) by WRAP and the Green Alliance in 2015 estimated that a circular economy could create up to 500,000 new UK jobs and cut unemployment across the country by 102,000. Since then, major policy frameworks on resources and waste have been under development (packaging Extended Producer Responsibility, Deposit Return Scheme for beverage containers, Collection Consistency, Plastics Packaging Tax. All of these will significantly ramp up jobs and skills demand across the sector to implement and deliver – from frontline workers to data analysts, environmental regulators, and communication and behaviour change experts. While the sector is still working to quantify this demand (see paragraph 22), as part of our evidence submission CIWM investigated and have used real world examples to illustrate some of **additional jobs** that will be required within the resources and waste sector in the future.

#### Consistent collections and food waste

14. If those local authorities in England currently using a comingled collection for their dry recyclables changed to a source segregated collection (which would deliver greater recycling quality) this could generate thousands of new green jobs.
15. In England alone in [2017/2018](#), 20% of Waste Collection Authorities were using a fully comingled system, whilst 50% were commingling some of their materials. When comparing the number of collection staff required to deliver such a service we have used a 1:3 ratio for comingled collections compared to source segregated collections, based on our real world workforce data. For every 100,000 households serviced 45 source segregated staff are required compared to 15 for a comingled collection. If we apply this to the 20% of authorities in England using a fully comingled collection that would mean that almost **2,000 additional jobs** would be created just on the front line<sup>1</sup>. If we add the additional jobs created from switching partial commingled schemes to source segregated, as the brands and reprocessors demand better quality recycle, then another **4,000 to 5,000 jobs** might be created.

<sup>1</sup> Assumes 70 local authorities, each with approx. 100,000 households, with 1050 jobs for comingled collection compared to 3010 for source segregated collection.

16. In 2017/2018, 49% of English authorities didn't have a food waste collection service. If every authority implemented one in order to deliver on the Government's requirement for mandatory food waste collections by 2023, this should create an estimated **additional 2,500 – 3,500 jobs** (based on 15 staff per 100,000 households) plus drivers and quality supervisors etc.
17. Collecting clean stream materials will also provide additional opportunities for new green jobs across the supply chain in reprocessing and organics treatment, with some small decreases in the number of staff employed at our material recycling facilities (MRFs). CIWM estimates an **additional 1,000 jobs** could be required in clean stream materials bulking and handling even accepting that some jobs will be transitioned (and upskilled) from existing sorting functions.

### Reuse and Repair

18. Local authorities are increasingly looking at how they can support their residents (and in time local businesses) to reuse more of their possessions at end of life. Opportunities are available to collect more items via kerbside services (Textiles and WEEE) or via bulky waste collections or at the local Household Waste Recycling Centre (HWRC). However, to really drive a more circular economy, local authorities are seeking opportunities to link the collection of items with the opportunity to repair and resell them or provide additional social value to families they support through redistribution services.
19. With local highstreets under considerable pressure some local authorities are exploring opportunities to work with local reuse partners and provide retail space either on the high street or at the HWRC to move this agenda forward. These activities can generate opportunities for those with repair and refurbishment skills but also retail skills such as merchandising and customer service. If each local authority invested more in reuse and repair activities, to take these materials out of the waste stream earlier, there could be an estimated:
- **1,000 – 1,500 additional jobs** created at HWRCs which develop reuse shops
  - **300 - 500 additional jobs** in local authority support teams
  - **12,000 – 15,000 additional jobs** in the community, with the staffing of reuse shops and supporting repair, refurbishment and remanufacturing activities.

### Training and learning

20. Currently the 351 WAMITAB approved trainers can support over 10,000 learners (Using a ratio of 1 trainer to 30 learners). However, to meet the predicted skills capacity gap, just based on the c20,000 additional jobs identified in the examples provided above, our sector will need to invest in 700+ new trainers, and in new materials that are better aligned with the skills and competences required in these new roles.
21. This will require significant investment including new centres to be developed across the UK to meet specific regional requirements. Additional investment will also be required to upskill existing professionals and help them adapt to the predicted transition.

22. CIWM is currently undertaking a significant project which will report in June 2021 which will map out what new and existing skills our sector will require by 2030 and should prove a positive read for this Committee. The Resource Council is also taking a longer-term view from 2030 onwards to identify which transitions in materials management will come first and what specific training will be required. The Resource Council will be publishing its initial transformation plans by the June 2021 and would welcome the opportunity to share these with the Committee and discuss how they might work and the skills that will be needed in the short to medium term. This work will highlight the need for greater support for professional accreditation frameworks, such as a proposed new Green Circle scheme that will set the bar for environmental performance of all companies in the resources and waste sector and includes an aligned Green Skills Programme.

**Does the UK workforce have the skills and capacity needed to deliver the green jobs required to meet our net zero target and other environmental ambitions (including in the 25-year environment plan)?**

23. Our sector increasingly relies on a highly skilled workforce that is technically trained. Future government policy is likely to extend and embrace the concepts of cradle-to-grave product stewardship and extended producer responsibility and as we develop the new infrastructure required to deliver this circular economic approach, the need for technical and digital skills will expand.
24. CIWM believes that there is much more to be done to ensure the resources and waste sector has the right skills and capacity to deliver on future ambitions. An important starting point is training provision capacity. WAMITAB Approved Centres deliver recognised qualifications for the sector and across the four nations, with 58 Centres focussed primarily on waste and resource management provision. In order to fulfil the demands of the skills shortages identified in syllabus and learner numbers, additional training provider infrastructure will need to be developed and cultivated. This will include upskilling industry experts with necessary assessment and quality assurance qualifications, and/or upskilling qualified assessment staff with industry expertise.
25. Our sector is constantly evolving to ensure that we're providing the best solution for the environment. Transitioning from being heavily reliant on landfill (with limited staff numbers) to a sector that produces valuable secondary materials and utilises energy recovery to gain additional value from residual waste. Existing employees have been trained to manage this transition, assimilating skills from other sectors such as power and manufacturing. This will continue but the pace of change and scale of transition will require further new skills and capacity.
26. The resource and waste management sector will also need to improve its attractiveness to bring in new recruits with new perspectives aligned with the green transition and the technologies, business models and materials that will underpin this. In 2019, CIWM developed a [Green Careers Toolkit](#) which is a practical resource that aims to equip and inspire students in secondary schools to consider and explore careers in the resource and waste management industry.

**What needs to be done to ensure that these skills and capacity are developed in time to meet our environmental targets?**

27. The government must provide the necessary leadership and vision on the green transition and the skills necessary to underpin it so that appropriate investment, innovation, infrastructure and training can be delivered. Transitioning to a resource efficient, low carbon

economy will require a renewed focus on ‘green skills’ as part of an overarching national skills strategy and **skills related to resources and waste management must be part of this mix**. A 2011 strategy document ‘[Enabling the transition to a green economy](#)’ prepared by the Department for Business, Innovation & Skills notes that: “The transition to a green economy requires a workforce with the right skills. This includes not only skills in the low carbon and environmental goods and services sector, but also those needed to help all businesses use natural resources efficiently and sustainably and to be resilient to climate change.”

28. CIWM believes significant targeted investments are also needed in education and training to address both the immediate unemployment resulting from COVID-19 and the structural shifts needed to underpin the green recovery and longer-term net zero ambitions. As already noted, cross-government leadership and vision will be required to allow industry sectors including the resources and waste sector, as well as those responsible for shaping the education and research and innovation frameworks) to determine what interventions, support and initiatives are needed to ensure that the UK economy has necessary green skills. Without clarity, the sector’s major employers may be unwilling to commit to significant retraining or recruitment until the skills gap becomes acute, which is likely to be too late to deliver on government’s ambitions and targets.

**What measures should the Government take to ensure that its proposals to meet environmental targets do not by default lead to jobs in affected industries being exported?**

29. The resource and waste management sector has significant opportunities to manage materials within the UK with appropriate investment. New extended producer responsibility and eco-design policies could stimulate further materials markets within the UK and create more green jobs.
30. CIWM believes that the measures government should take would include:
- Provide support for reskilling of declining sectors where the fundamental skills are transferable to new growth sectors;
  - Consider investment conditions, incentives and other policy levers that will make reprocessing of secondary materials more attractive within the UK, thus ensuring more jobs are created here than in overseas markets; and
  - Consider new extended producer responsibility and eco-design frameworks that create further domestic opportunities for waste prevention, reuse and repair.

**What risks are there to meeting the Government’s ambitions for green job creation in both the public and private sectors? What should the Government do to create the conditions to ensure its commitments are met by both sectors?**

31. CIWM feels the most significant risks are likely to be the following:
32. **Long term vision:** Delivering on the ambitions requires leadership and vision and an enabling cross-government strategy for green skills and jobs. The Government’s 10-point green plan and the subsequent Energy White Paper in December 2020, however, focus almost exclusively on cleaner energy sources and do not acknowledge other forms of resource and material efficiency and productivity. Policy clarity and a clear direction of travel is needed to create private sector confidence and investment in the necessary skills, jobs and infrastructure, and this applies to all sectors not just the resources and waste sector.
33. **Public sector finances:** for local authorities to deliver on the policies outlined in the Resources and Waste Strategy, additional funding will be required to develop new services

and enhance existing delivery. Local authorities are under significant financial strain and the COVID-19 pandemic has exacerbated budgetary pressures. There is a risk that new green jobs in the public sector will not be created if ringfenced funding to support policy delivery is not also provided.

**Are the Government's ambitions for green job creation in the public and private sectors sufficient for the scale of the challenges? What changes should be made?**

34. The Government's ambitions are still at an early stage. CIWM welcomes the creation of a Green Jobs Taskforce and will be engaging with the Taskforce to reinforce the opportunity and benefits of green jobs linked to resource management and productivity.

**How can the UK ensure jobs are created in areas most impacted by the transition to a low-carbon economy?**

35. The private waste sector is ready to invest over £10 billion in new infrastructures in the next 10 years to boost the recovery and recycling of wastes from homes and businesses around the country, if supported by the right long-term policy framework. Collection of materials happens at a local level but the reprocessing of materials is often on a regional basis to provide economies of scale and often in more industrial areas. Through the Resource Council's initial work on regionality, CIWM believes that there are opportunities to create regional hubs of excellence that align with the infrastructure, skills and local needs. This could allow the resource and waste management sector to tap into specific regional skills from industries most likely to be impacted (e.g. coal, oil and gas) and support regional industrial clusters. Examples could include fertilisers and nutrients from organic waste for soil replenishment in agriculture, end of life batteries from electric vehicles for refurbishment and future energy storage, and waste plastics for conversion into aviation fuel or chemical manufacturing.
36. Opportunities in reuse and repair could happen within every part of the UK and could support retraining of people currently working in retail, hospitality or remanufacture. For the development of new reprocessing infrastructure, this would require re-training or collaboration with other sectors to identify transferable skills.
37. CIWM suggests additional investment for training should be considered to aid those areas specifically effected by the transition. Targeted investments and retraining programmes should ensure that workers in high-carbon sectors are able to find employment in green industries which will be in demand for the long-term. Future investments must be delivered strategically by stimulating demand for skills and decent work in high-demand low-carbon products, services and industries. Moreover, interventions to empower communities with resources and opportunities to buy more sustainable products will help an inclusive transition.

**What additional interventions should be undertaken to aid in a 'just transition'?**

38. CIWM believes that focussing on the regional nature of resources and waste management would aid in a just transition. Waste management has the potential to stimulate green job growth across the UK and there is [evidence](#) to suggest that moving to a more efficient use of resources can stimulate net job growth, especially in regions where unemployment is higher, such as the North East and West Midlands, and among low to mid skilled occupations, where a higher rate of job losses are projected for the future.

39. Government could consider incentives to encourage investment within specific regions so that (for example) reprocessing infrastructure could be developed or training hubs delivered.

**What impact can green jobs have on the wider UK economy?**

40. See paragraph 4. CIWM believes that the development of additional green jobs in the resources and waste sector will have a ripple effect across all other sectors by supporting the transition to net zero for others and amplifying the impact green jobs can have on the wider UK economy.

**What contribution can green jobs make to the UK's economic recovery from Covid-19?**

41. As outlined in paragraph 4, the resources and waste sector is a key enabler in supporting a green recovery across many industry sectors. The transition to a more circular economy also requires more sustainable consumption models and as highlighted previously, growth in reuse, repair and remanufacture will translate to additional green jobs. CIWM is aware that younger workers have been particularly affected by the economic and job impacts of the COVID-19 pandemic. Stimulating growth in reuse and repair will require additional a range of different skills including customer service and general retail skills. These skills are commonly found in retail and hospitality – two areas that have been affected during the pandemic - and potentially offers retraining and employment opportunities for these age groups who have been hit the hardest.
42. In the longer term, accelerating the move towards a circular economy would increase the UK's resilience to 'systemic' shocks in global supply chains as a result of climate change, geopolitical trends or further pandemics.

**How can the UK ensure high emissions are not locked-in when tackling unemployment?**

43. CIWM believes other respondents may have a stronger case to present here. However, climate resilience as well as long-term climate and environment goals should be built into all future financial and policy decisions. New investments to support the economic recovery and jobs should be resilient to future climate risks and accelerate the shift towards a more resilient, low-carbon circular economy. These investments should thus prioritise low-carbon infrastructures and circular economy infrastructures over all other types.

## Responding organisations

### Chartered Institution of Wastes Management

The CIWM is the professional body for the resource and waste management sector. It represents around 5,600 waste and resource management professionals, predominantly in the UK but also overseas. CIWM sets the professional standards for individuals working in the sector and has various grades of membership determined by education, qualification and experience. The CIWM recognises the opportunity for growth in our sector and in 2021 will be focusing on skills and core competences needed in our sector in 2025 and beyond.

### WAMITAB

WAMITAB is an awarding organisation and charity that develops qualifications for those working in resource management and recycling; cleaning and street cleansing; facilities management and



parking from operative through to management level. WAMITAB works directly with industry leaders to shape and deliver employer-led qualifications that provide individuals with fit-for-purpose skills for the workplace. WAMITAB are a not-for-profit organisation dedicated to supporting technical competence in the industry via regulated programmes, accreditation of in-house training schemes and on-the-job assessment tools.

### UK Resources Council

The UK Resources Council was formed in 2018 in recognition of the need for Government to have a single body that it could talk to about policy proposals and development agendas that represented the full spectrum of secondary resources (waste) management, from collections, handling and recycling, to refining, reprocessing and secondary end uses, including manufacturers, and local economic partnerships etc. Initially tasked with securing a sector deal for the Resource Sector, the informal body is now continuing to develop sectoral solutions to professionalism, technology readiness, data sharing and inward investment, and has close working relationships with the Environment Agency, Defra and BEIS.

## Green Jobs [Call for Evidence](#) – Waste and Resources Sector

### Executive Summary

1. Response from the [Chartered Institution of Wastes Management \(CIWM\)](#), [WAMITAB](#) and the UK Resources Council (hereafter known collectively as CIWM). CIWM welcomes the opportunity to respond to this call for evidence and have consulted a number of our members, trainers, students and other sector representatives to obtain their professional feedback, which has formed the basis of this submission.
2. The resources and waste management sector has an ever increasing and important role to play in supporting the UK green recovery. Waste services are used by every household and business across the UK and the sector provides a **universal service**, collecting and safely managing a wide range of materials and products from food waste to discarded electronic and electrical equipment, chemicals and healthcare waste. As well as being an essential utility, the sector protects the environment, improves the UK's resource productivity by securing valuable materials to enable their transformation from waste to new feedstocks for industry and contributes to achieving net zero emissions.
3. In addition to being a dynamic growth sector in itself, providing some 150, 000 jobs and circa £7bn GVA, the waste and secondary resource management industry has an important role to play in improving resource availability and security across the UK economy through the supply of the quality secondary raw materials and feedstocks. In this context, the sector supports a wide range of other industries and has an important role to play in supporting their decarbonisation efforts.
4. The resources and waste sector is also constantly adapting to changes in consumer behaviour, policy, and market conditions and investing in the right skills is essential to ensure that professionals are equipped to deliver the right services in line with this constantly changing landscape. In the last few decades, the sector has managed seismic transitions in operations and outlook, moving from heavy reliance on landfill to a sector that is embracing the circular economy, maximising the value and economic potential of the materials it manages, and supporting households and businesses to minimise waste and maximise recycling. This transition is ongoing, with major policy changes ahead between now and 2024, and in recognition of this fact the organisations contributing to this response are working collaboratively to maximise the opportunities ahead for green growth, jobs and skills.

### CIWM's key messages for Government:

5. The government must provide the necessary leadership and vision on the green transition and the skills necessary to underpin it so that appropriate investment, innovation, infrastructure and training can be delivered. Transitioning to a resource efficient, low carbon economy will require a renewed focus on 'green skills' as part of an overarching national skills strategy and **skills related to resources and waste management must be part of this mix.**
6. CIWM has identified a number of areas where there are opportunities for a significant growth in green jobs. We will need support to provide the right skills to aid this.
  - We believe that enhancing reuse, repair and remanufacture of goods in support of the transition to a more circular economy could create at least **15,000 'additional' green jobs;**

- To deliver on the Government policy commitments outlined in the Resources and Waste Strategy, which include consistent collections and universal food waste collections, an additional **9,500 green jobs** could be needed across frontline services (collection and materials handling etc.), material supply chains; and
  - To effectively train (and upskill) employees coming into our sector we will need an additional **700 additional qualified trainers** and associated new training centres to support specific regional needs.
7. The sector can support the Government's ambition in the Industrial Strategy to double resource productivity by 2050 and the transition to net zero across the UK economy. The sector is already planning for this but needs support from Government and collaboration with other sectors to maximise our performance, which is the remit of the UK Resources Council currently. A holistic approach, with a cross-Government, multi-sectoral approach to green skills and jobs sectors, is the only way we can deliver net zero carbon, facilitate the investment needed, and ensure the staff with the right skills are available at the right times to support the transition.
  8. CIWM recognises that there are geographical requirements for jobs which are connected to the regional movement of specific materials and the location of existing and planned infrastructure. There is evidence to suggest that moving to a more efficient use of resources can stimulate net job growth, especially in regions where unemployment is higher, such as the North East and West Midlands, and among low to mid skilled occupations, where a higher rate of job losses are projected for the future.
  9. CIWM also believes that the sector can actively support industries that may be in decline or have been significantly impacted by the COVID-19 pandemic. For example, expansion of reuse and repair will require the core customer service skills of retail and hospitality staff, whilst heavy industry expertise will be needed when delivering green infrastructure and new technology sites and services.
  10. CIWM welcomes the opportunity to provide further input to the enquiry and discuss the information laid out in this response on the initiatives our sector has underway and how it can support the UK's green recovery agenda.
- 

*January 2021*