Sector Methodology

1. **How should the UK government identify the most important subsectors for delivering our objectives?**

The Government should consider a sector's environmental impact alongside the proposed indicators of growth, productivity and international position. Sustainability should be explicitly factored into the assessment methods, for example indicators could include carbon emissions, associated waste tonnages or efficient use of natural resources. Highly polluting sectors or those that produce high levels of waste would not support the Government's objectives even if they show potential for economic growth.

This approach would directly support the Government's environmental objectives including net zero and the transition to a zero waste economy. The green paper states that the UK is committed to sustainable growth. This should mean that the Industrial Strategy prioritises sectors which are likely to lead to a more circular economy, lower carbon emissions and a reduced impact on the natural world.

2. **How should the UK government account for emerging sectors and technologies for which conventional data sources are less appropriate?**

As per the response to question one, emerging sectors and technologies should also be measured against the government's environmental objectives including net zero and a zero waste economy. Where data is unavailable or less appropriate, government should invest in research to ensure that the environmental impacts of emerging sectors and technologies are fully understood.

3. **How should the UK government incorporate foundational sectors and value chains into this analysis?**

A key part of the value chain which might otherwise be ignored is the waste which a sector produces. The Industrial Strategy should be explicit about factoring this into any analysis and working to encourage and embed circular economy principles across all sectors. The new Industrial Strategy should be closely linked to the Circular Economy Strategy which is being developed by Defra but not referenced in the green paper.

Sectors

4. **What are the most important subsectors and technologies that the UK government should focus on and why?**

The Government should focus on enabling a circular economy, for example through improving the UK's capacity and technology for recycling, stimulating demand for recycled materials, encouraging R&D into product design and manufacturing, and developing skills and infrastructure in the reuse and repair sector. Support for these areas would develop the UK's capabilities and encourage economic growth, while

ensuring that the Industrial Strategy can have positive environmental impacts. In relation to the eight growth-driving sectors proposed in the green paper, these areas could be linked to advanced manufacturing, digital and technologies and clean energy industries.

A range of existing government policies require intervention on these areas in order to succeed, for example Defra's Collection and Packaging Reforms will not achieve the potential benefits of higher recycling rates if there is no market for the collected materials, or capacity to process them. Similarly, targets set in the Environment Act 2021 to reduce residual waste and improve resource productivity cannot be achieved without significant change from industry and progress towards a circular economy.

According to statements published by Defra in relation to development of a circular economy strategy:

> the Government's goal is to become an international leader in circular design, technology and industry. By embracing a circular transition, the UK will attract investment into new product manufacturing and processing infrastructure; create new highly skilled green jobs in circular product design and development; and help the economy retain more of the critical resources on which it depends.

The Industrial Strategy should support and enable these ambitions.

5. **What are the UK's strengths and capabilities in these sub sectors?**

6. **What are the key enablers and barriers to growth in these sub sectors and how could the UK government address them?**

A key barrier to progress on these areas in recent years has been lack of clarity and ambition from previous governments, for example there have been numerous delays in delivering the 2018 Resources and Waste Strategy and little focus on the Waste Prevention Programme for England. The government could use the development of the Industrial Strategy, alongside the development of the Circular Economy Strategy, to remove uncertainty on these policy areas and set out new, ambitious commitments with genuine pathways to delivering them. This also presents an opportunity for joined-up working across government to focus on sustainable resource use, and align the UK's environmental and economic ambitions.

Support for circular economy initiatives has significant potential for economic benefits. Research by Green Alliance estimates that more resource efficient processes could grow UK GDP by nearly £25 billion by 2035 and a more ambitious approach to repair, remanufacturing, reuse and recycling could create over 450,000 jobs. To help achieve these benefits government should improve UK capacity for recycling, reuse and repair including through investment in infrastructure and training. Measures should also encourage improved product design and enable circularity by ensuring that businesses

are responsible for reducing their waste. High product standards should be adopted so that items are long-lasting and repairable, and producers should have responsibility for the costs of eventual disposal and recycling.

Business Environment

7. **What are the most significant barriers to investment? Do they vary across the growth-driving sectors? What evidence can you share to illustrate this?**

In relation to the waste sector, regulatory uncertainty has been a significant barrier to investment in recent years with successive Governments failing to deliver policy commitments to their stated timelines. This prevents the sector from planning and delivering changes to services and products, which would otherwise require significant investment. For a specific example see the proposed Deposit Return Scheme which has been repeatedly delayed, leading to financial losses for some private sector operators and significant uncertainty for local authorities.

Investment in recycling and associated technology is hampered by a limited market for materials while growth in the market is limited by the lack of technology and capacity for processing materials. Government should intervene to break this cycle by stimulating demand for recycled materials and supporting investment in processing and infrastructure. Interventions could include increasing Plastic Packaging Tax or regulatory requirements for use of recycled materials in new products.

Business Environment – People and Skills

8. **Where you identified barriers in response to Question 7 which relate to people and skills (including issues such as delivery of employment support, careers, and skills provision), what UK government policy solutions could best address these?**

9. **What more could be done to achieve a step change in employer investment in training in the growth-driving sectors?**

Business Environment - Innovation

10. **Where you identified barriers in response to Question 7 which relate to RDI and technology adoption and diffusion, what policy solutions could best address these?**

There should be strong incentives or mandatory requirements for businesses to reduce waste in their products and processes. This could drive improvements in design and manufacturing which lead to better environmental outcomes as well as economic benefits.

Government should also invest into research and development of new technologies for recycling and waste management, which would enable the UK to make more efficient use of resources and limit our environmental impacts.

11. **What are the barriers to R&D commercialisation that the UK government should be considering?**

Business Environment - Data

12. **How can the UK government best use data to support the delivery of the Industrial Strategy?**

The green paper references 'using public sector data as a driver of growth'. The public sector requires far better data on waste to underpin a circular economy so that Government and industries fully understand their environmental impacts and can measure and incentivise improvements. The waste sector typically reports on metrics such as weight-based recycling rates, which simply do not address the overarching need to reduce waste across all sectors and move to a circular economy if the UK is to meet its environmental targets. An improved dataset would include metrics on reuse and the carbon impacts of the materials found in waste. These can be more challenging to measure than waste tonnages and would need to be standardised to apply nationally, so government should provide the research and investment needed to develop appropriate indicators and targets.

NLWA believe the Government should develop a robust and standardised framework for regular business waste reporting, so that there is a more accurate picture of waste produced across UK. Accurately measuring the impacts of the waste which industries are producing would support the government's objectives for net zero and ensure growth is sustainable.

Data reporting in the waste sector is also carried out using systems which require investment and updates. Government commitments to improve waste data, such as Digital Waste Tracking, are yet to be delivered.

13. **What challenges or barriers to sharing or accessing data could the UK government remove to help improve business operations and decision making?**

Business Environment - Infrastructure

14. **Where you identified barriers in response to Question 7 which relate to planning, infrastructure and transport, what UK government policy solutions could best address these in addition to existing reforms? How can this best support regional growth?**

15. **How can investment into infrastructure support the Industrial Strategy? What can the UK government do to better support this and facilitate co-investment? How does this differ across infrastructure classes?**

For any sector of the economy which is growing, there must be confidence that the UK can manage any related waste that is produced. In line with the waste hierarchy, this should be through reuse or other circular methods, or otherwise recycling wherever possible. In some cases waste must also be disposed of. Managing this process with the highest environmental standards will require strategic planning and investment to ensure that the UK has the waste processing infrastructure we need, for example processing capacity for all recyclable materials. Otherwise, a lack of waste infrastructure could result in the Industrial Strategy having unwanted impacts on the environment and failing to deliver sustainable growth.

Carbon capture and storage (CCS) is another key area where investment into infrastructure could support the Industrial Strategy to achieve sustainable growth. The Climate Change Committee has said that CCS is a 'necessity, not an option' for the transition to net zero. CCS is the only available technology which can achieve large-scale reductions in CO2 emissions from energy from waste plants and can support other industrial sectors to reduce CO2 emissions. Strong strategic direction is required from Government to establish the necessary infrastructure. Interventions could include: developing a whole energy system plan which includes CCS, undertaking assessments to examine the capacity of the transport network and identify strategic ports and rail hubs for transport of CO2, mandating CO2 storage readiness for such infrastructure, and examining the regulatory and delivery environment to ensure it supports new CCS capacity.

Business Environment - Energy

16. **What are the barriers to competitive industrial activity and increased electrification, beyond those set out in response to the UK government's recent Call for Evidence on industrial electrification?**

17. **What examples of international best practice to support businesses on energy, for example Purchase Power Agreements, would you recommend to increase investment and growth?**

Business Environment - Competition

18. **Where you identified barriers in response to Question 7 which relate to competition, what evidence can you share to illustrate their impact and what solutions could best address them?**

19. **How can regulatory and competition institutions best drive market dynamism to boost economic activity and growth?**

Business Environment - Regulation

20. **Do you have suggestions on where regulation can be reformed or introduced to encourage growth and innovation, including addressing any barriers you identified in Question 7?**

It is crucial that regulation is not used only to encourage growth and innovation at the expense of the environment. The Industrial Strategy and any associated regulation should have an explicit focus on driving industry towards a circular economy and sustainability. For example, regulations should ensure that manufacturers and other businesses are responsible for the waste they produce, in line with the 'polluter pays' principle. Extended producer responsibility schemes ensure that businesses bear the costs of the waste they produce and incentivise waste reduction. This can lead to innovation such as products being designed with more sustainable materials, or reuse of items which would otherwise need to be disposed of.

Business Environment – Crowding in Investment

21. **What are the main factors that influence businesses' investment decisions? Do these differ for the growth-driving sectors and based on the nature of the investment (e.g. buildings, machinery & equipment, vehicles, software, RDI, workforce skills) and types of firms (large, small, domestic, international, across different regions)?**

Business Environment – Mobilising Capital

22. **What are the main barriers faced by companies who are seeking finance to scale up in the UK or by investors who are seeking to deploy capital, and do those barriers vary for the growth-driving sectors? How can addressing these barriers enable more global players in the UK?**

23. **The UK government currently seeks to support growth through a range of financial instruments including grants, loans, guarantees and equity. Are there additional instruments of which you have experience in other jurisdictions, which could encourage strategic investment?**

Business Environment – Trade and International Partnerships

24. **How can international partnerships (government-to-government or government-to-business) support the Industrial Strategy?**

25. **Which international markets do you see as the greatest opportunity for the growth-driving sectors and how does it differ by sector?**

Place

26. **Do you agree with this characterisation of clusters? Are there any additional characteristics of dimensions of cluster definition and strength we should consider, such as the difference between services clusters and manufacturing clusters?**

27. **What public and private sector interventions are needed to make strategic industrial sites 'investment-ready'? How should we determine which sites across the UK are most critical for unlocking this investment?**

28. **How should the Industrial Strategy accelerate growth in city regions and clusters of growth sectors across the UK through Local Growth Plans and other policy mechanisms?**

29. **How should the Industrial Strategy align with devolved government economic strategies and support the sectoral strengths of Scotland, Wales, and Northern Ireland?**

Partnerships and Institutions

30. **How can the Industrial Strategy Council best support the UK government to deliver and monitor the Industrial Strategy?**

The Industrial Strategy Council must focus on environmental outcomes as well as economic growth. This means that the council should include members with expertise on establishing a circular economy and sustainable business models across a range of sectors. The evidence considered by the council and the advice it provides must include environmental analysis, with reference to waste arisings, resource efficiency and carbon impacts.

31. **How should the Industrial Strategy Council interact with key non-government institutions and organisations?**

32. **How can we improve the interface between the Industrial Strategy Council and government, business, local leaders and trade unions?**

There should be a well-defined route for local authorities to interact with the Council and feed into development of the strategy. It should be made clear how these inputs can inform government decisions. Where the strategy relates to particular places, there should be particularly close engagement with local government. This should include consideration of key services such as waste management, which will be affected by changes to local industry.

Theory of Change

33. **How could the analytical framework (e.g. identifying intermediate outcomes) for the Industrial Strategy be strengthened?**

The framework would be strengthened by factoring in waste and wider sustainability and environmental outcomes. The green paper has no mention of environmental impacts anywhere in the proposed outcomes of the Theory of Change. This is despite the Industrial Strategy needing to support and align with the aim for net zero, as well as the Government's commitments in other strategies and legislation such as the Environment Act. Omitting environmental considerations risks failing on the Government's stated aim for sustainable growth.

34. **What are the key risks and assumptions we should embed in the logical model underpinning the Theory of Change?**

35. **How would you monitor and evaluate the Industrial Strategy, including metrics?**

In line with responses to previous questions, our recommendation would be that the Industrial Strategy is monitored using measures which aim to capture environmental, as well as economic, impacts. For instance, evaluations could consider:

- the quantity of waste being produced by the sectors of focus
- the amount of raw material consumption
- the extent to which those resources are reused or contribute to circular economy approaches
- sectors' carbon emissions including those embedded in the manufacture, sale, use and disposal of products

When developing the evaluation framework, the Industrial Strategy should not be considered successful if it increases economic growth at the expense of unsustainable damage to the environment through increased waste or emissions.

Additional Information

36. **Is there any additional information you would like to provide?**