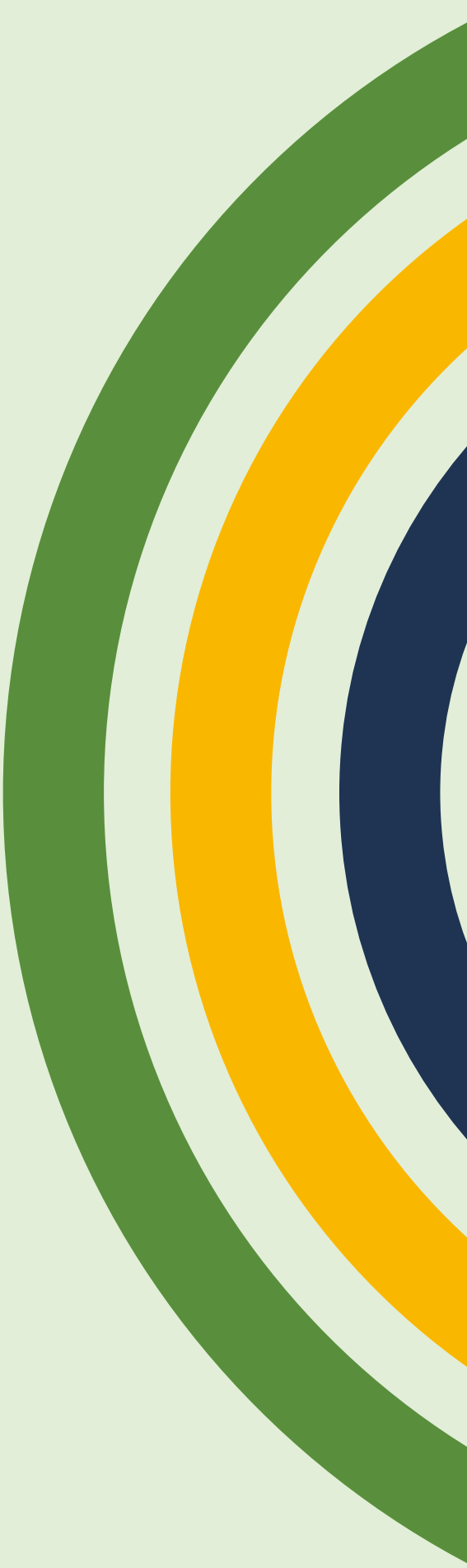
HIGHWAYS DOUGHNUT TOOLKIT

BACKGROUND AND METHODOLOGY



Department for Transport
ADEPT LIVELABS 2 Decarbonising Local Roads
CORNWALL COUNCIL
Hampshire County Council
Somerset Council
NET ZERO ROADS WESSEX LIVE LAB
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TABLE OF CONTENT

ABOUT

This guidance manual supports those aiming to apply the Highways Doughnut Toolkit to transform the highway maintenance sector by integrating the principles of Doughnut Economics. Developed as part of the Live Labs 2 programme, a three-year, £30 million UK-wide initiative funded by the Department for Transport. The toolkit is part of the Wessex Partnership's 'Net Zero Roads – Wessex Live Lab', and was developed by Circle Economy in collaboration with the highway authorities for Cornwall, Hampshire, and Somerset.

Through an iterative, co-development process, the toolkit was designed to translate the dimensions of Doughnut Economics into sector-specific Doughnut Themes tailored to highway maintenance. This represents a significant step toward aligning maintenance practices with both social needs and ecological limits. The toolkit has been trialled and refined within the three partner authorities, with the long-term goal of embedding its principles into both strategic planning and operational delivery. This hands-on testing ensured the toolkit's relevance, usability, and effectiveness, ultimately paving the way for broader implementation.

To improve usability, the manual is divided into two separate documents:

1. **Background and Methodology:** Introduces the Doughnut framework, explains its relevance to the highway sector, and outlines how it was adapted into the Highways Doughnut. It also presents the toolkit's structure, guiding principles, and intended impact.
2. **Step-by-step guidance:** Provides the practical application process for using the toolkit in real-world settings. It includes clear, step-by-step instructions for applying the tools at both strategic and project levels, helping to embed ecological and social goals into everyday highway maintenance practice.

The two reports are designed to be explanatory and practical, offering both insights into the methodology used as well as step-by-step guidance on how to apply the toolkit at both strategic and project levels. While developed with Cornwall Council, Hampshire County Council, and Somerset Council, it is intended to be adaptable and useful to any highway authority or stakeholder involved in preparing, designing, or delivering net-zero highway activities.

ACKNOWLEDGEMENTS

The Highway Doughnut toolkit was developed as part of the Live Labs 2 programme, funded by the Department of Transport. Circle Economy extends its gratitude to the funders, partners, advisors, and contributors for their invaluable contributions to both the development of the toolkit and the preparation of this guidance document.

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1. INTRODUCTION

UNPACKING DOUGHNUT ECONOMICS

In 2017, Kate Raworth published *Doughnut Economics: Seven Ways to Think Like a 21st Century Economist*, introducing a transformative approach to economic thinking that focuses on human and planetary well-being. The book presents the Doughnut model—a visual framework depicting what it means to achieve human prosperity within ecological limits. While the model highlights essential factors for 21st-century prosperity, it does not prescribe specific methodologies for assessing or implementing these goals.

THE DOUGHNUT OF SOCIAL AND PLANETARY BOUNDARIES

Think of the Doughnut as a compass for human prosperity in the 21st century, aiming to meet the needs of all people within the means of our planet. As illustrated by Figure one, this model is represented by two concentric rings: **the social foundation and the ecological ceiling**.

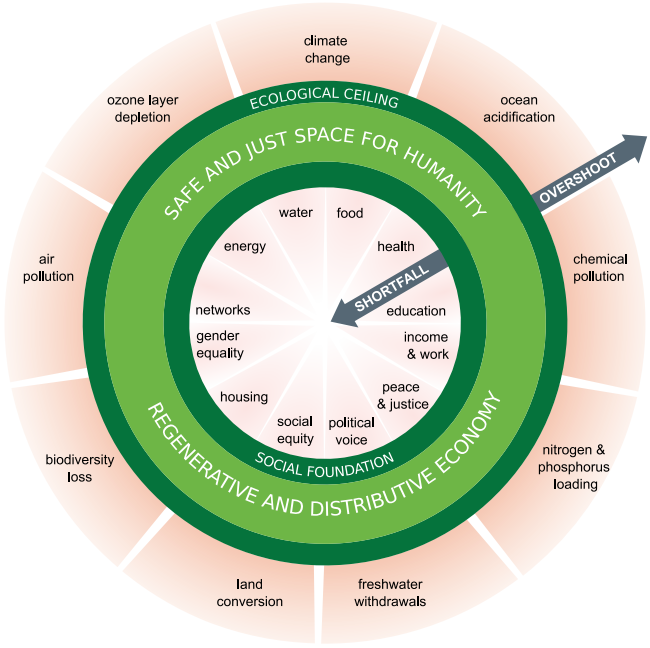


Figure one. The Doughnut model. Source: Kate Raworth (2017).

The social foundation represents the minimum standard of living required to avoid critical human deprivation. It encompasses 12 dimensions derived from the Sustainable Development Goals (SDGs) established by the United Nations in 2015. The ecological ceiling represents the limits beyond which environmental degradation occurs. Exceeding this boundary results in serious damage to the planet's ecosystems. The ecological ceiling is defined by nine planetary boundaries, as identified by Earth-system scientists. The space between these two rings forms a doughnut-shaped zone where both ecological safety and social justice coexist, creating an environment where humanity can thrive. Together, these boundaries establish the conditions that humanity must maintain to prevent both critical human deprivation and ecological collapse.

UNROLLING THE DOUGHNUT

Cities were among the pioneers in practically applying the Doughnut model as a means for transformative action. One of the first tools developed to assist practitioners in navigating this approach was the Doughnut Unrolled or Four Lenses. This tool operates on the concept of 'unrolling' the Doughnut model to expose four different lenses. These lenses help examine the local aspirations in the context of its global responsibilities, recognising that every place is connected to people and the planet worldwide.

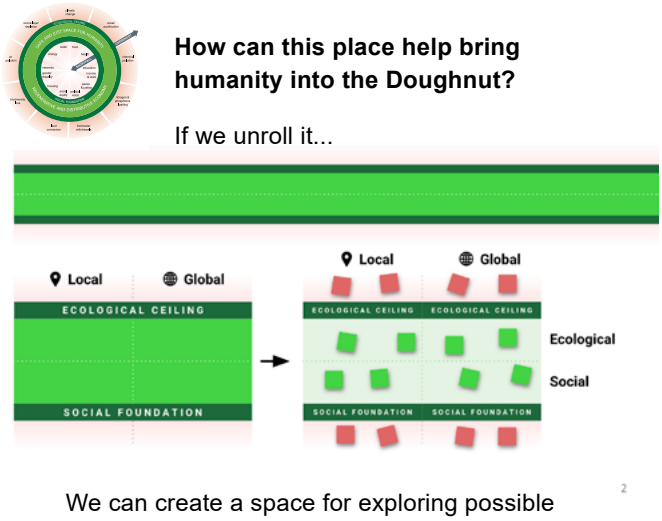


Figure two: Unrolling the Doughnut

2. HIGHWAYS DOUGHNUT

Doughnut Economics has already been successfully applied in cities and counties such as Amsterdam, London, Philadelphia, Cape Town, Brussels and Cornwall, providing a holistic framework for operating within the ecological and social boundaries of the Doughnut model. This approach has delivered valuable insights, allowing cities to manage complex urban environments, driving critical discussions on policy reform, and catalysing transformative actions across city governance.

However, these experiences raise a key question: How can Doughnut Economics be adapted to specific sectors and applied at the service delivery level? Exploring sector-specific applications opens new possibilities to address unique challenges while maintaining alignment with the broader vision of regenerative and distributive development.

The road ecosystem has profound impacts on the environment, economy, and society. Maintaining road networks is a resource-intensive activity, with materials often sourced globally, yet highway maintenance is essential to ensuring a safe and accessible transport network, critical for society to function. Striking a balance between environmental mitigation, prevention, preservation, and societal needs is essential, especially as the sector advances towards decarbonisation.

This toolkit represents a sector-specific adaptation of Doughnut Economics, tailored for highway maintenance. It provides an integrated framework that goes beyond the decarbonisation agenda to assess and balance the societal, environmental, and planetary impacts of highway activities. With the toolkit's results, local governments can make informed decisions, strategically prioritising directions that maximise both social and ecological outcomes, ensuring that strategic goals translate effectively into on-the-ground implementation.

METHODOLOGY

The development of the highway maintenance toolkit was an intensive research and participatory design process involving a core team of highways experts from the three highway authorities, and a reviewing and feedback team including cross-disciplinary experts from the authorities and the Doughnut Economics Action Lab Team.

The methodology comprised two key steps with several associated activities:

1. **Adapting the Doughnut themes** to specifically target the Highway sector and its impacts on people, environment and planet:

    a. **Initial research and needs assessment:** The first stage involved comprehensive research to gain a detailed understanding of the highway maintenance sector. This included holding working meetings with authorities to discuss current activities, processes, and strategies. Additionally, industry reports, academic papers, and government guidelines were analysed to map existing practices within highway maintenance.

    b. **Identifying relevant themes:** The research then focused on determining which of the social and ecological themes of Doughnut Economics were most relevant to the highway sector. This involved cross-referencing ongoing activities and existing strategies within each authority with Doughnut dimensions such as health, education, energy, and climate change. Dimensions that had a significant impact or relevance to highway maintenance, such as air pollution, biodiversity and health, were selected. Areas that had little or very indirect relevance to the highway sector, such as food and internet connectivity, were disregarded. A number of themes with particular relevance for the highway sector and in line with circular economic principles were also added, including Accessibility, Low carbon mobility, Waste and Material Footprint.

    c. **The language and content of the Doughnut themes** were then modified, merged and adapted to align with highway sector terminology and avoid redundancy. For instance, 'Chemical pollution', 'ozone layer depletion' and 'excessive fertiliser use' were merged into two broader, more relevant themes addressing 'soil and land health' and 'hazardous materials. Similarly, 'social equity' and 'equality and diversity' were combined to focus on equality aspects of highway maintenance activities across the counties. Any ambiguities were addressed to ensure the language was clear, concise, and accessible to all users. This led to establishing the first concrete set of thematic dimensions for applying Doughnut Economics to the highway sector. Based on the defined themes, we then developed sub-themes, further defining the dimensions of each Highway Doughnut theme.

    d. **Stakeholder review and finalisation:** This version of the toolkit was validated with the core team consisting of Highway maintenance professionals from the three counties. Rounds of reviews and workshops were conducted to gather feedback on the relevance, clarity, and comprehensiveness of the toolkit. Based on the feedback from the stakeholders, the content of the toolkit was further refined. Terminologies were aligned with existing definitions in national legislation and existing assessments addressing each of the impact categories.

2. **Developed the conceptual framework of the toolkit** to successfully assess the impact of the adapted themes of the highway sector:

   a. **Unrolling the Doughnut and applying the Four Lenses tool:** With the themes clearly defined, the next step involved unrolling the Doughnut model and applying the Four Lenses tool to evaluate the impact of highway maintenance activities on the four lenses: local-social, local-ecological, global-ecological, and global-social. For instance, it evaluated how maintenance practices influence both local and global health (social foundation) and contribute to carbon emissions and air pollution at both scales (ecological ceiling). Through this exercise, we realised that the key lever to influence both social and ecological aspects on a global scale is by setting requirements on the purchase of materials in the supply chain. The global and local lenses have therefore been combined in the toolkit with local influence on global impacts through contractual agreements in procurement and supply chain processes.

   b. **Separating strategic and project levels:** The local-global lens cannot be fully captured within the frameworks alone, particularly due to the complex nature of supply chains in the sector. Supply chain decisions, such as the sourcing of critical materials or adherence to ethical labour practices, often extend beyond the local scope of a project or sector. For example, while a project may focus on local needs, the materials used could have global origins, making supply chain decisions crucial to integrating the local and global perspectives. This understanding helped weave the local-global lens into the tools.

      When highway maintenance processes and decisions were analysed through this lens, it became evident that supply chain choices occur on both strategic and project levels. At the project level, a decision might involve choosing a sustainable material, while at the strategic level, procurement policies and contractual obligations are determined. Thus, the local and global dimensions were combined and doughnut was rerolled, resulting in a two-tier decision-making approach—1) strategic and 2) project—was central to shaping the toolkit. Each approach integrates insights from the local-global lens analysis through supply chain decisions. The following chapters will delve deeper into the strategic and project-level dimensions.

   c. **Designing the Assessment Framework:** In this step, the focus was on determining how to assess the strategies and projects across the social and ecological themes of the Doughnut. Drawing from the City Portrait Methodology, the 'Doughnut state' for each theme was defined, setting the ideal future for each topic in line with the distributive and regenerative principles of Doughnut Economics. Inspired by the City Portrait methodology, specific questions were developed for the strategic tool to evaluate the availability of targets and monitoring frameworks that meet the Doughnut State for each theme, but with an added layer to also evaluate how these are translated into systematic implementation procedures. For the project tool, sub-theme questions were developed to break down and assess the detailed application of each theme. A scoring framework was created to support the evaluations using qualitative and, where possible, quantitative metrics.

ADAPTING THE DOUGHNUT THEMES TO HIGHWAYS

Following the basic visual principle of the Doughnut model, the Highway Doughnut consists of two concentric rings, with the inner ring representing the social themes relevant to highway maintenance activities, and the outer ring representing the ecological ceiling that the highway maintenance activities are impacting. The area between these two rings, referred to as the 'doughnut space', symbolises the safe and just space for the sector, and a desired Doughnut state where the Highways sector would operate in a socially just and ecologically safe way.

Ecological ceiling: This outer ring comprises nine ecological impact categories, many of which are adapted from the Earth's planetary boundaries, as outlined in the original Doughnut model. For highway maintenance, additional material-related impact categories—such as hazardous materials, material footprint, and waste—have been incorporated to highlight the critical importance of material choices and the full lifecycle impact of those materials on the environment. These considerations align closely with the principles of the circular economy. A summary of all themes is available in Appendix one.

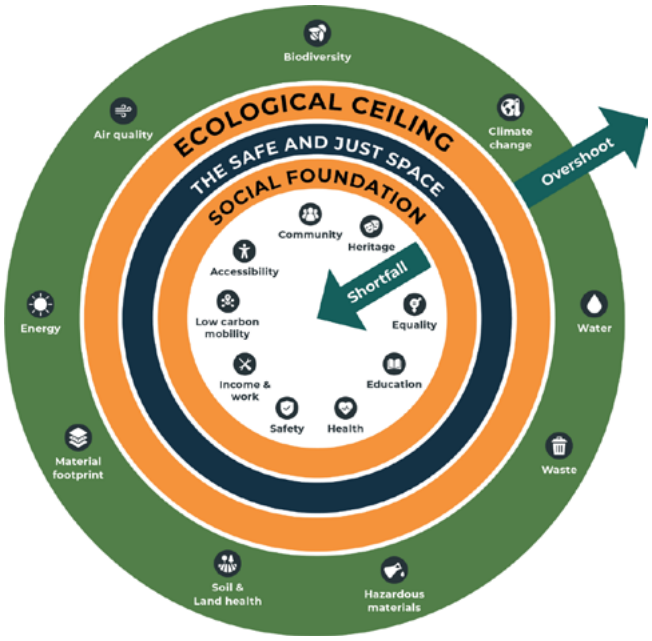


Figure three: The Doughnut Model for Highway maintenance

Social foundation: This inner ring consists of nine social impact categories, adapted from the original Doughnut model and aligned with the SDGs. For highway maintenance, additional categories—such as accessibility, safety and low-carbon mobility—have been included to address the need for inclusive infrastructure and low-carbon transport options. These categories ensure that road networks contribute to social well-being while supporting environmental goals. A summary of all themes is available in Appendix one.

TOOLKIT'S LOGIC

As outlined in earlier sections, the **Highways Doughnut Toolkit** consists of two interrelated tools: 1) the Strategic Tool and 2) the Project Tool. These tools were designed to support decision-making happening on different levels and moments in time within the authorities. The differentiation between these two levels is essential: strategy and policy typically establish longer-term objectives and have far-reaching impacts on not only the management of services, but also procurement and the day-to-day delivery at both service and project levels. At a project level, decisions execute strategy and policy and focus on the delivery of immediate and shorter-term actions.

For example, at the **strategic level**, a local authority may adopt a carbon reduction policy and respective targets that apply to all future road maintenance projects. This decision shapes the long-term vision of the sector. In contrast, at the **project level**, decisions focus on executing this strategy. For instance, selecting low-carbon materials or energy-efficient plant and machinery for a particular road resurfacing project, which translates the strategic goals into practical, on-the-ground actions, contributing directly to reducing carbon emissions and improving environmental and social outcomes.

As a guiding framework across the two levels, each theme within the toolkit has a clearly defined **Doughnut State**, representing the ideal future for that specific topic. This Doughnut State acts as a compass, steering strategic and project-level evaluations towards the most desirable outcomes. It establishes the social and ecological boundaries that must be respected to ensure that the highway maintenance activities contribute to a regenerative and distributive economy. Each Doughnut State helps focus both strategic and project-level decisions on achieving a balanced future, where societal needs are met without exceeding the planet's ecological limits.

Figure four: Example of a Doughnut State for the theme Material Footprint.

The Strategic tool is largely qualitative, relying on key assessment questions to guide decision-making. This includes questions such as: Do the targets in place align with the defined doughnut state? And are there systematic processes in place by the service provider to consistently translate the targets into daily practices?

However, the Project tool integrates both qualitative and quantitative approaches, using specific data-driven indicators where possible. This includes, for example, the quantitative indicator of the percentage of carbon reductions and the more qualitative evaluation of the integration of accessibility measures in maintenance designs.

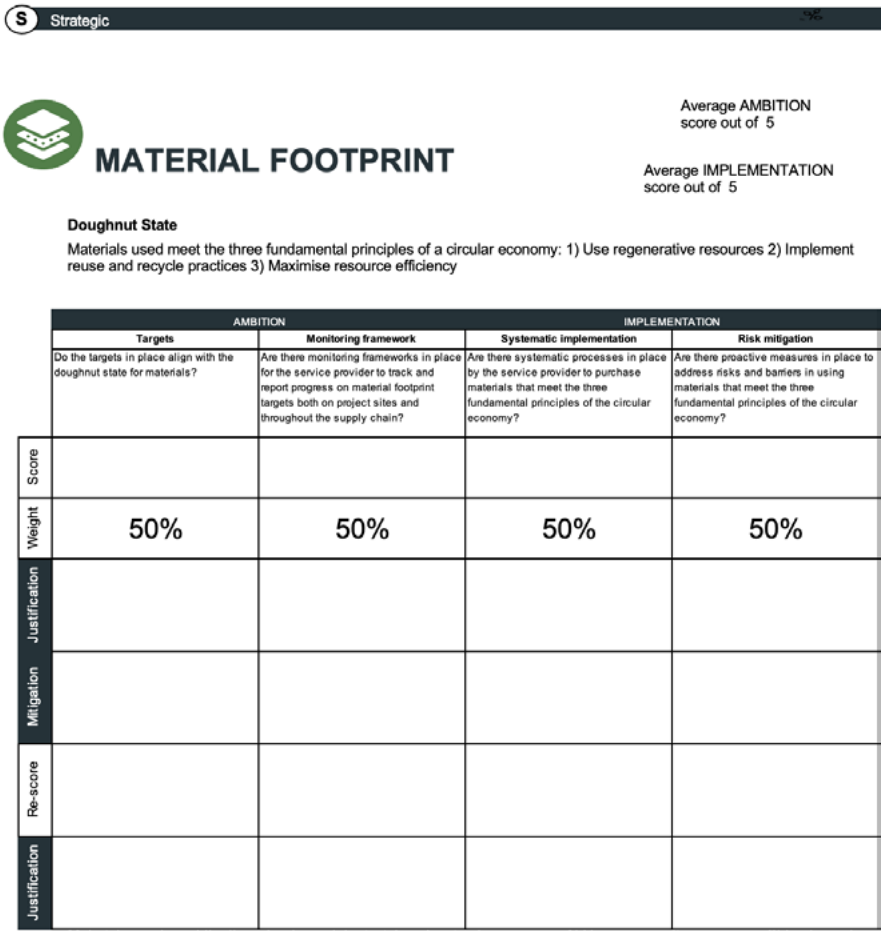
While these tools can function independently, they are deeply interconnected. Strategic-level decisions directly shape project-level actions, and outcomes at the project level can, in turn, inform and refine the strategic direction. By aligning decision-making across both strategic and project levels, the toolkit fosters coherent and effective impacts, translating Doughnut Economics principles into tangible changes on the ground.

The upcoming Chapters three and four will provide a detailed walkthrough of both tools with examples to demonstrate how they can be applied to meet social and ecological considerations in highway maintenance.

1. Strategic Tool

This tool is designed to assess policies and strategies at the county or regional scale, with long-term impacts across multiple projects. It focuses on broad, high-impact decisions that establish the direction for future initiatives in strategic documents such as the Local Transportation Plan. These decisions take place usually every five years and include setting targets and monitoring frameworks for areas such as carbon neutrality or ensuring fair and safe working conditions for all highway workers.

Beyond target setting and monitoring measures, the strategic tool also asks guiding questions on how the targets are translated into systematic working processes and risk monitoring measures, ensuring effective and streamlined implementation across all highway activities. For example, carbon budgets can be adopted in every highway maintenance project to fulfil the carbon-neutral target, or monitoring measures on the fulfilment of fair and safe working conditions for all workers involved in Highway maintenance projects. The scoring framework for the strategic tool is generalised, providing the same framework across all themes.



S Strategic

MATERIAL FOOTPRINT

Average AMBITION score out of 5

Average IMPLEMENTATION score out of 5

Doughnut State

Materials used meet the three fundamental principles of a circular economy: 1) Use regenerative resources 2) Implement reuse and recycle practices 3) Maximise resource efficiency

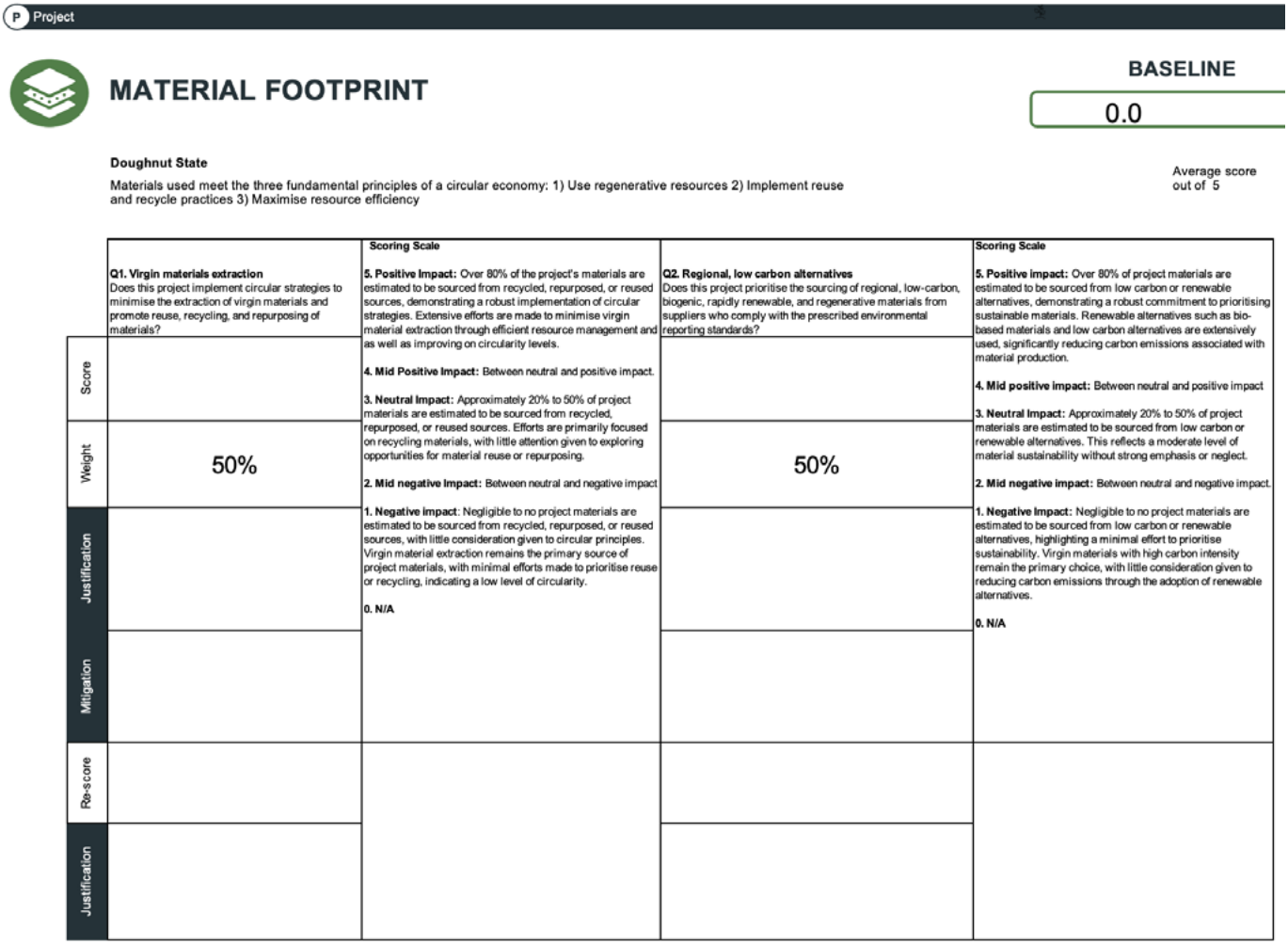
	AMBITION		IMPLEMENTATION	
	Targets	**Monitoring framework**	**Systematic implementation**	**Risk mitigation**
	Do the targets in place align with the doughnut state for materials?	Are there monitoring frameworks in place for the service provider to track and report progress on material footprint targets both on project sites and throughout the supply chain?	Are there systematic processes in place by the service provider to purchase materials that meet the three fundamental principles of the circular economy?	Are there proactive measures in place to address risks and barriers in using materials that meet the three fundamental principles of the circular economy?
Score				
Weight	50%	50%	50%	50%
Justification				
Mitigation				
Re-score				
Justification				

Figure five: Strategic tool example from the theme Material Footprint.

2. Project Tool

This tool focuses on decisions and activities within individual projects, typically short-term and specific. It allows for detailed analysis and decision-making, such as choosing circular road surfacing materials that meet defined ecological and social criteria. These choices ensure that each project contributes to the broader goals set at the strategic level.

The project tool further refines and details the developed themes by asking sub-theme questions specifically relevant for project implementation. As an example, for the theme Waste, sub-theme questions are included regarding efforts on waste minimisation, waste diversion and waste sorting. Similarly, for Accessibility, we ask sub-theme questions regarding accessibility measures integrated in the project design, as well as ensuring accessibility during the construction phase. The scoring framework for the Project tool is customised for each sub-theme question, providing more detailed guidance on how to score each question.



P Project

MATERIAL FOOTPRINT

BASELINE 0.0

Doughnut State

Materials used meet the three fundamental principles of a circular economy: 1) Use regenerative resources 2) Implement reuse and recycle practices 3) Maximise resource efficiency

Average score out of 5

	Q1. Virgin materials extraction Does this project implement circular strategies to minimise the extraction of virgin materials and promote reuse, recycling, and repurposing of materials?	**Scoring Scale** **5. Positive Impact:** Over 80% of the project's materials are estimated to be sourced from recycled, repurposed, or reused sources, demonstrating a robust implementation of circular strategies. Extensive efforts are made to minimise virgin material extraction through efficient resource management and as well as improving on circularity levels. **4. Mid Positive Impact:** Between neutral and positive impact. **3. Neutral Impact:** Approximately 20% to 50% of project materials are estimated to be sourced from recycled, repurposed, or reused sources. Efforts are primarily focused on recycling materials, with little attention given to exploring opportunities for material reuse or repurposing. **2. Mid negative Impact:** Between neutral and negative impact **1. Negative Impact:** Negligible to no project materials are estimated to be sourced from recycled, repurposed, or reused sources, with little consideration given to circular principles. Virgin material extraction remains the primary source of project materials, with minimal efforts made to prioritise reuse or recycling, indicating a low level of circularity. **0. N/A**	**Q2. Regional, low carbon alternatives** Does this project prioritise the sourcing of regional, low-carbon, biogenic, rapidly renewable, and regenerative materials from suppliers who comply with the prescribed environmental reporting standards?	**Scoring Scale** **5. Positive impact:** Over 80% of project materials are estimated to be sourced from low carbon or renewable alternatives, demonstrating a robust commitment to prioritising sustainable materials. Renewable alternatives such as bio-based materials and low carbon alternatives are extensively used, significantly reducing carbon emissions associated with material production. **4. Mid positive impact:** Between neutral and positive impact **3. Neutral Impact:** Approximately 20% to 50% of project materials are estimated to be sourced from low carbon or renewable alternatives. This reflects a moderate level of material sustainability without strong emphasis or neglect. **2. Mid negative impact:** Between neutral and negative impact. **1. Negative Impact:** Negligible to no project materials are estimated to be sourced from low carbon or renewable alternatives, highlighting a minimal effort to prioritise sustainability. Virgin materials with high carbon intensity remain the primary choice, with little consideration given to reducing carbon emissions through the adoption of renewable alternatives. **0. N/A**
Score				
Weight	50%		50%	
Justification				
Mitigation				
Re-score				
Justification				

Figure six: Project tool example from the theme Material Footprint.

3. Visualised scores

Based on the scores entered for each Doughnut theme, the toolkit automatically generates a Doughnut Visual that provides a clear snapshot of both the baseline project or programme's performance across the social and ecological lenses, as well as an updated Doughnut based on mitigation measures. These visual representations help teams quickly identify areas where the intervention aligns well with the Doughnut States, as well as where further attention or improvement is needed, supporting more informed and balanced decision-making.

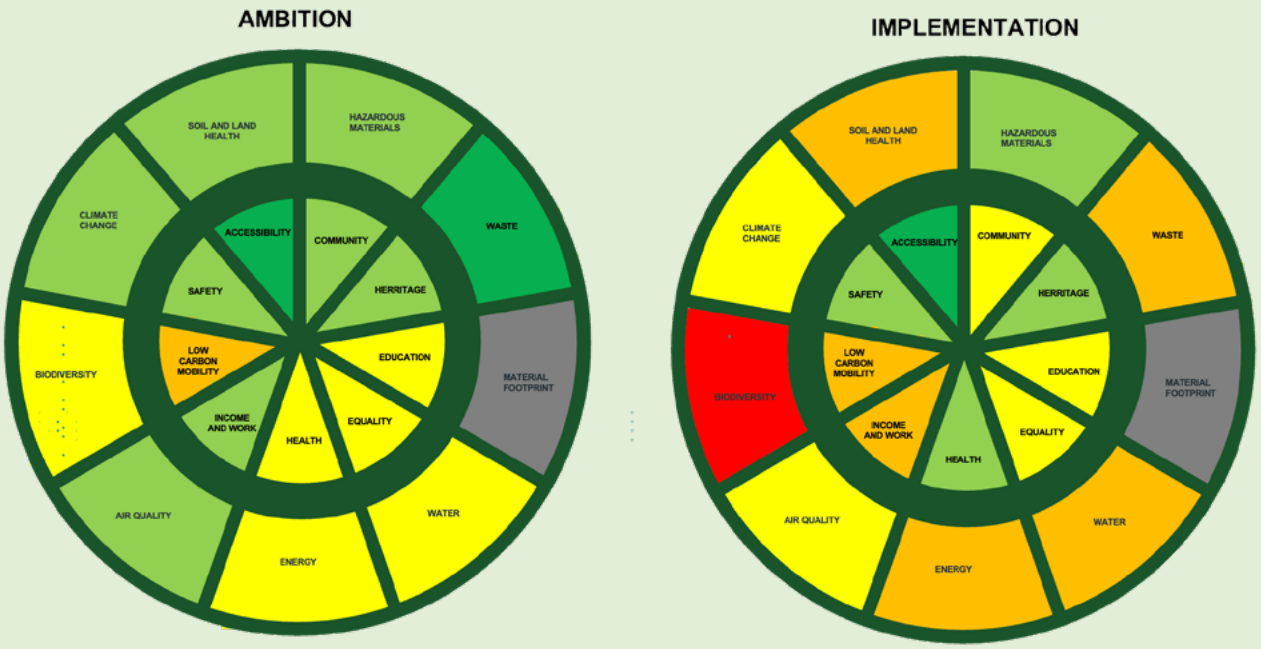


Figure seven: Strategic level Doughnut visualisations.

APPENDIX ONE:
DOUGHNUT HIGHWAY THEMES

SOCIAL THEMES AND DOUGHNUT STATE

ACCESSIBILITY	COMMUNITY	HERITAGE
The delivery of highway maintenance service enables road networks to be accessible and usable by all intended users, considering their diverse capabilities and needs.	All community members are provided with equal oppaortunities to be engaged in and well-informed about highway activities.	Highway maintenance activities are conducted in a manner that protects and safeguards cultural and natural heritage from negative impacts.

EDUCATION	EQUALITY	HEALTH
All staff involved in the delivery of highways maintenance services acquire the knowledge and skills needed to promote and deliver regenerative practices.	Road networks are maintained with equal quality and fair distribution of resources across the county, ensuring that all areas receive the same level of care and attention.	The delivery of highway maintenance service and its supply chains contribute to mental or physical health and wellbeing by improving ecological conditions, specifically targeting ambient air quality, noise levels, light pollution, and odour sources.

INCOME AND WORK	LOW-CARBON MOBILITY	SAFETY
The highway maintenance staff, volunteers and associated supply chain workers are provided with employment security and fair compensation while upholding workers' rights and promoting local employment opporunities.	The delivery of highway maintenance service ensures that low-carbon modes of transport (such as active mobility, shared mobility, public transport) are available for all and the infrastructure that supports them is enhanced.	The quality of air is always maintained, preserved and restored when necessary by eliminating the generation of pollutants at the source. Regenerative measures are actively promoted to restore and maintain clean air.

ECOLOGICAL THEMES AND DOUGHNUT STATE

ENERGY

Energy comes predominantly from renewable energy sources, while energy consumption is minimised and energy efficiency is maximised.

HAZARDOUS MATERIALS

Hazardous materials, substances, and mixtures in local operations are carefully managed, thereby eliminating impacts on human health, natural ecosystems, and biodiversity.

CLIMATE CHANGE

Climate change is mitigated by limiting the global temperature increase to well below 1.5 degrees Celsius above pre-industrial levels, by drastically reducing greenhouse gas emissions (CO_2, CH_4, N_2O, HFCs), achieving carbon neutrality, and actively striving towards carbon positivity through carbon sequestration methods.

SOIL AND LAND HEALTH

Soil and land health is preserved and enhanced by minimising soil disturbance, mitigating man-made or natural geohazards in local operations and avoiding land degradation (such as loss of productive lands, deforestation and desertification) in the supply chain.

WASTE

Waste management follows the Waste Hierarchy principles, which give top priority to waste prevention, followed by reuse, recycling, recovery and final disposal.

BIODIVERSITY

Highway maintenance activities ensure that biodiversity is maintained and enhanced, ensuring healthy ecosystems and resilient habitats.

MATERIAL FOOTPRINT

Materials used meet the three fundamental principles of a circular economy: 1) Use regenerative resources, 2) Implement reuse and recycle practices, and 3) Maximise resource efficiency

WATER

Water consumption is minimised through increased water use efficiency, recycling, and reuse. The rate of water extraction never exceeds the natural replenishment rate of aquifers and surface water sources.

AIR QUALITY

Highway maintenance activities ensure that biodiversity is maintained and enhanced, ensuring healthy ecosystems and resilient habitats.

APPENDIX TWO: GLOSSARY

Doughnut Economics: A transformative economic framework that redefines the goal of economic systems from relentless GDP growth to thriving within the ecological and social boundaries of the 'Doughnut'. It encourages a holistic understanding of economic health, highlighting that sustainable success involves knowing when to shift from growth to flourishing within planetary limits.

Circular economy: The circular economy is a system where materials never become waste, and nature is regenerated. It is based on three principles, driven by design: 1) Eliminate waste and pollution, 2) Circulate products and materials (at their highest value), and 3) Regenerate nature.

Doughnut Unrolled into four lenses: A concept developed for cities that takes us from the Doughnut to four 'lenses' that invite you to look at the interplay between local aspirations and global responsibilities in your place—both socially and ecologically—and identify possible entry-points for transformative action.

Sustainable Development Goals (SDGs): A global agenda of 17 goals developed by the United Nations in 2015 to address global sustainability challenges across social, economic, and environmental domains.

Planetary boundaries: Scientific thresholds within which humanity can operate safely to prevent substantial environmental harm and ensure ecological stability. These boundaries underpin the ecological ceiling.

Regenerative development: In the context of Doughnut Economics, 'regenerative' refers to economic practices and systems that restore and enhance the health of the planet and its ecosystems. This approach prioritises sustainability by promoting the replenishment of natural resources, fostering biodiversity, and ensuring that human activities contribute positively to the environment. Regenerative systems aim to create a balance where the economy works in harmony with nature, supporting both ecological and social well-being.

Distributive development: 'Distributive' in Doughnut Economics emphasises the equitable allocation of resources and wealth within society. This principle advocates for systems that reduce inequality and ensure that all individuals have access to the resources necessary for a good quality of life. Distributive economies focus on creating fair opportunities for all, enhancing social justice, and promoting collaborative approaches that benefit the broader community rather than concentrating wealth and power in the hands of a few.

Service provider: Refers to both internal teams within the Highway Authority and external organisations or contractors responsible for delivering specific maintenance services. These services cover a range of activities, including feasibility designs, routine inspections, repairs, winter maintenance (such as gritting and snow removal), vegetation management, pothole repairs, resurfacing, and other tasks essential for maintaining the safety, functionality, and longevity of the highway network.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