

Deloitte.

A blueprint

for green workforce transformation

TOOLKIT

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Contents

Maturity matrix	03
Blueprint of a model organisation	08
Private sector model organisation	10
Public sector model organisation	24
Organisational blockers and enablers	38
Contact the team	42

To complement our report [‘A blueprint for green workforce transformation’](#) we have built a standalone toolkit for leaders to mobilise green skills across their workforce.

The toolkit was developed and enriched by insights gathered from roundtables, interviews and surveys provided by a wide range of sustainability professionals across public and private sectors. Our intention, through the toolkit, is to give organisations practical ideas, tools and options to explore further in their organisational context, which could inspire and drive a green skills transition.

The following are our working assumptions and definitions:

Green skills

An umbrella term for the technical skills, knowledge, behaviours and capabilities required to tackle the environmental challenges we face and to unlock new opportunities for growth. Our definition for environmental challenges goes beyond achieving the UK government net zero decarbonisation ambitions to include a more holistic view. The three core environmental challenges that green skills span are:

- Nature and biodiversity
- Climate change and decarbonisation
- Waste and pollution reduction

Green jobs

Specialist roles that focus on specific domains or initiatives dedicated to improving environmental outcomes for an organisation or for the economy.

Green economy

A potential future state of the whole UK economy in which fundamental change in the way the economy functions, not unlike the first industrial revolution has taken place. Growth will continue to be the essential motif of our economy but its measurement will be more holistic, more consistently factoring in people and planet alongside profit. For example, we will quantify and value biodiversity as we quantify and value domestic production.



Maturity matrix

The maturity matrix is an indicative tool, designed for organisations to identify potential gaps and possible next steps across two areas:

1. their ability to address green challenges (e.g. climate change, biodiversity loss, pollution and waste)
2. their green capability of internal functions (e.g. HR, IT, finance)

Read across the maturity example indicators to map where your organisation sits. Some organisations may align to multiple maturity levels across the range of themes. Weigh up each theme based on its significance to your organisation's sector, business model, assets and workforce.

>>1.

Maturity matrix

- Map your organisation's maturity in relation to its ability to address green challenges and its green capability of internal functions
- Use the maturity matrix to highlight areas for improvement and explore new ways to transition your organisation towards a green future

2.

Blueprint of a model organisation








- See how green skills can be embedded into job families across a 'model organisation'
- Identify green skills gaps across job families and use this simplistic model as a conversation starter with relevant teams

3.








Blockers and enablers

- Explore the common blockers and enablers discussed at interviews and roundtables with sustainability professionals
- Consider whether these apply to your organisation and how they could be used to facilitate the transition towards green skills for your workforce

An organisation's propensity to address 'green' challenges may influence the skills and jobs required.

Maturity example indicators:				
Theme:	 Understanding	 Developing	 Performing	 Leading
 <p>Climate change</p>	<ul style="list-style-type: none"> • Baselines scope 1 and 2 greenhouse gas (GHG) emissions and includes these in annual public reports • Engages with suppliers / landlords to assess feasibility and cost of purchasing renewable energy at owned / leased sites • Develops understanding of cross-organisation mobility and where the greatest opportunities are 	<ul style="list-style-type: none"> • Sets up contracts to purchase 100% renewable energy where available • Identifies potential for on-site renewables e.g. solar panels • Develops a roadmap to reach net zero emissions in own operations • Creates low-to-zero carbon mobility strategy • Introduces requirement that suppliers share their emissions data 	<ul style="list-style-type: none"> • Measures scope 1, 2 and 3 greenhouse gas emissions and reports on this regularly • Sets up 100% renewable energy across key sites and operations (regional offices, stores/sites, distribution centres etc.) • Operates a 100% hybrid / electric fleet • Tracks strategic suppliers' emissions targets and progress • Invests in technology and innovations to reduce emissions from hard-to-abate processes 	<ul style="list-style-type: none"> • Acquires contracts for 100% renewable energy across all sites and operations (regionally and globally) • Explores feasibility and cost for green gas • Works with strategic suppliers on their net zero target • Transparent on emissions of all purchased goods and services • Purchases 100% carbon removal offsets, covering operations and value chain
 <p>Nature and natural resources</p>	<ul style="list-style-type: none"> • Complies with biodiversity laws and regulations • Documents the direct and indirect impacts each site / location has on surrounding nature and environment 	<ul style="list-style-type: none"> • Creates an action plan including targets to protect and enhance surrounding biodiversity • Develops innovation portfolio of processes and technology to reduce impact on natural resources, e.g. materials science, remanufacturing 	<ul style="list-style-type: none"> • Meets biodiversity targets by restoring nature that has been impacted by organisational operations • Assigns accurate value to natural services used by the organisation and factors this into investment decisions • Develops metrics to measure the impact of the organisation's services on the natural environment 	<ul style="list-style-type: none"> • Creates an ecosystem to accelerate the enhancement of biodiversity via alliances with partner organisations, suppliers and customers • Actively implements actions to minimise value chain impact on the natural environment • Tracks and reports on a number of key performance indicators that demonstrate the impact of the organisation and its goods / services on the natural environment
 <p>Pollution and waste</p>	<ul style="list-style-type: none"> • Sets up governance, procedures and appropriate infrastructure to drive resource efficiency 	<ul style="list-style-type: none"> • Produces resource efficiency plan to tackle significant sources of waste; recycle >50% of waste; and diverts 100% of total waste from landfill 	<ul style="list-style-type: none"> • Creates a circular economy strategy to enable a reduction in total waste production of 50% per employee; recycling rates >75%; and eliminates avoidable single-use plastic from workplaces 	<ul style="list-style-type: none"> • Maximises circular economy-related opportunities to deliver waste reduction of 75% per employee; and eliminates all single-use plastic and all avoidable waste from workplaces

An organisation's maturity of enabling capabilities may influence the green skills and jobs required.

Maturity example indicators:				
Theme:	 Understanding	 Developing	 Performing	 Leading
 Management	<ul style="list-style-type: none"> • Sets a commitment to reduce carbon emissions in line with 1.5°C pathway and identifies wider sustainability goals • Identifies executive sponsor to be accountable for delivery of firmwide strategy 	<ul style="list-style-type: none"> • Categorises climate-related risks over short, medium and long term • Embeds risk management processes into business operations and creates a governance structure to oversee it • Mobilises teams to identify and prioritise sustainability initiatives 	<ul style="list-style-type: none"> • Utilises performance management systems to incentivise actions in support of sustainability commitments • Certifies internal procedures against relevant local and international standards • Continuously plans and tracks sustainability actions 	<ul style="list-style-type: none"> • Outlines ambitious environmental targets that go beyond net zero, that put back more value into the environment than they take e.g. reaching carbon positive, Biodiversity Net Gain • Is recognised as a leading organisation for championing acceleration towards a low-carbon sustainable future
 Procurement	<ul style="list-style-type: none"> • Identifies sustainability requirements, Key Performance Indicators (KPIs) and risks associated with each procurement category 	<ul style="list-style-type: none"> • Requires that suppliers share their emissions data • Establishes and implements process to ensure minimum sustainable and ethical standards are met in procurement and contracts 	<ul style="list-style-type: none"> • Includes supplier requirements to set net zero and sustainability strategy commitment as part of contracts • Develops and tracks supplier sustainability key performance indicators for further monitoring and analytics 	<ul style="list-style-type: none"> • Builds capacity for training suppliers to further enhance their sustainable supply chains
 IT	<ul style="list-style-type: none"> • Understands negative environmental impacts of IT across end-to-end use • Educates employees on digital pollution and mitigation 	<ul style="list-style-type: none"> • Develops procedures to manage carbon footprint across the IT estate • Develops long-term data storage and legacy hardware/software policies and sustainable decommission 	<ul style="list-style-type: none"> • Inserts sustainability requirements into all major IT contracts • Promotes circulatory of IT equipment and ensures that 100% of e-waste has been re-used or recycled 	<ul style="list-style-type: none"> • Migrates on-site storage and services to a cloud-based solution that has set net zero commitments • Builds eminence and alliances by sharing best practices across the industry

An organisation's maturity of enabling capabilities may influence the green skills and jobs required.

Maturity example indicators:				
Theme:	 Understanding	 Developing	 Performing	 Leading
 Finance	<ul style="list-style-type: none"> Reviews sustainability credentials of pension fund providers and ensures these are clear to employees Understands the role Environmental & Social Governance (ESG) plays in investment decisions 	<ul style="list-style-type: none"> Creates an investment framework that integrates Environmental & Social Governance (ESG) targets into the decision-making criteria Owens and leads the climate related financial disclosure reporting and requirements 	<ul style="list-style-type: none"> Ensures that Environmental & Social Governance (ESG) specialist funds are available as default options to all employees Assesses and measures against the investment framework that integrates ESG targets into the decision-making criteria 	<ul style="list-style-type: none"> Divests employee pension fund fully from fossil fuel extraction Further enhances and refines the Environmental & Social Governance (ESG) investment framework, including best practices and learnings
 HR/people	<ul style="list-style-type: none"> Understands where sustainability / green skills capability gaps exist in the workforce 	<ul style="list-style-type: none"> Ensures that employees are offered training to develop understanding of sustainability risks and opportunities relating to their industry and organisation Builds a plan for developing future green skills aligned to the needs and strategy of the organisation and external macro trends 	<ul style="list-style-type: none"> Uses incentives against sustainability metrics for performance management of leadership and some management roles Embeds technical sustainability training in learning and development plans and career pathways for specific job roles 	<ul style="list-style-type: none"> Leverages incentives and messaging at all levels to fully internalise the principles of sustainability in organisational culture Offers specialist and relevant green skills training programmes tailored for employees in all job families across the organisation



Blueprint of a

model organisation

The blueprint of a 'model organisation' paints a picture of an organisation that has embedded green skills across all job families, sharing the organisation's responsibility to meet consumer, stakeholder, and regulator demands in the green economy.

The 'model organisation' supports a workforce that has the ability to utilise their green skills to unlock new opportunities and creative strategies that deliver value for people, planet and profit. Use the 'model organisation' job families as a starting point to begin to think through how green skills can enhance typical roles and functions within your organisation. Identify any green skills gaps in your organisation's workforce, in terms of technical skills, knowledge, behaviours, and competencies.

1.

Maturity matrix

- Map your organisation's maturity in relation to its ability to address green challenges and its green capability of internal functions
- Use the maturity matrix to highlight areas for improvement and explore new ways to transition your organisation towards a green future

>>2.

Blueprint of a model organisation

- See how green skills can be embedded into job families across a 'model organisation'
- Identify green skills gaps across job families and use this simplistic model as a conversation starter with relevant teams

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Blockers and enablers

- Explore the common blockers and enablers discussed at interviews and roundtables with sustainability professionals
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Private sector

'model organisation'

MODEL ORGANISATION – PRIVATE SECTOR

Our 'model organisation' has 11 job families which represent the common functions and roles within an organisation. Click on each job family to see a breakdown of the potential green skills it could have.



Front office job families



Back office job families

How to use and interpret the job family breakdowns.

On each of the following pages we describe the different job families and potential green skills and job attributes required in a green economy.

In the image on this page we explain what each element means.

JOB FAMILY

Summary of function

Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

Job family

Core competencies:	The standard abilities and characteristics required to perform the role, these are non-sustainability related.			
Key external drivers for the change:	A summary of trends that are shifting the requirements for this role and how it will be performed in the future.			

Green skills:	Knowledge	Technical skills	Behaviours	Competencies
Leadership				
Management	Describes the sustainability knowledge, awareness and understanding required to fulfil the job role based on level of seniority. E.g. awareness of the Sustainable Development Goals.	Describes the technical skills capabilities required to drive sustainability in a job role based on level of seniority. E.g. carbon footprint analysis.	Describes the behaviours, attitudes and mindset required to embed sustainability in a job role based on level of seniority. E.g. championing sustainability initiatives across the organisation.	Describes the sustainability competencies required to effectively perform a job role based on level of seniority. E.g. horizon scanning for the latest sustainability trends and solutions.
Operational				

The scale below shows the level of knowledge technical skills, behaviours and competencies required to transition from current state to future state.

States:	Low ▲ — ■ — ● High	Low ▲ — ■ — ● High	Low ▲ — ■ — ● High	Low ▲ — ■ — ● High
Variance by sector:	An indication and example of how the role of the job family may vary from sector to sector, organisation to organisation.			Experience: Low ▲ — ■ — ● High

45 CONTENTS

BACK < > NEXT








Gives customers information about products and services, takes orders, and process returns.

Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

Customer service/support

Core competencies:	Effective communication, influence and persuasion, data analysis.		
Key external drivers for the change:	<ul style="list-style-type: none"> • Consumerism and the circular economy. • Economy and universal basic income. 		<ul style="list-style-type: none"> • AI, automation, robotics and blockchain. • Purpose and value-led organisations.

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> • Understands the importance of sustainability credibility and transparency. 	<ul style="list-style-type: none"> • Ability to analyse customer feedback to identify sustainability-related product/organisational opportunities. 	<ul style="list-style-type: none"> • Mindset shift from transactional to experiential customer service (enhancing service and advice across whole product/service lifecycle). 	<ul style="list-style-type: none"> • Inspires customers to lead more sustainable lifestyles.
 Management	<ul style="list-style-type: none"> • Deep understanding of low carbon product ranges and alternatives. • Understands product lifecycle, supply chain impacts and carbon labelling. 	<ul style="list-style-type: none"> • Ability to diagnose fixes, offer sustainable alternatives and offer advice on products from cradle to grave. 	<ul style="list-style-type: none"> • Highly collaborative across internal teams, driving toward climate positive solutions for customers. 	<ul style="list-style-type: none"> • Combines problem-solving, and commercial awareness to work with adjacent teams to address customer sustainability concerns.
 Operational	<ul style="list-style-type: none"> • Knowledge of company sustainability vision, credentials and sustainability related product information. 	<ul style="list-style-type: none"> • Ability to fix and repair modular parts and show customers how to keep/maintain products for longer. 	<ul style="list-style-type: none"> • Engages and supports customers to fulfil their sustainable lifestyle needs. 	<ul style="list-style-type: none"> • Strong communicative skills and empathy to engage with customers on sustainability queries or issues.

States:				
Variance by sector:	<p>The knowledge and support customer service teams provide to their customers will vary based on the product and customer base. For example, in a B2B transaction, showcasing standardised sustainability metrics, KPIs and certificates will be vital for sales. Whereas in a B2C transaction, more storytelling and customer friendly metrics (e.g. carbon labelling) will be used to sell to customers. The type of product will also dictate the level of sustainability knowledge and advice teams will need to provide e.g. across food, fashion, tech, travel etc.</p>			<p>Experience:</p> 








Researches and shapes customer demand, analyses sales, communicates the company brand.

Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

Marketing and sales

Core competencies:	Influence and persuasion, effective communication, data analysis, negotiation and contracting.		
Key external drivers for the change:	<ul style="list-style-type: none"> • Consumerism and the circular economy. • Purpose and value-led organisations. 	<ul style="list-style-type: none"> • AI, automation, robotics and blockchain. • Post-COVID recovery and levelling up. 	

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> • Strong knowledge of sustainability trends, customer needs and motivations and circular economy models for consumption. 	<ul style="list-style-type: none"> • Ability to develop long term customer engagement strategies harnessing data on sustainability, customer needs and new business models. • Ability to build campaigns using sustainable activities and materials. 	<ul style="list-style-type: none"> • Views sustainability as a comparative advantage and key route to deliver value for customers and the organisation. 	<ul style="list-style-type: none"> • Builds collaborative relationships with customers to achieve sustainability goals and drive innovation.
 Management	<ul style="list-style-type: none"> • Well-informed about latest sustainability trends impacting their customer base. 	<ul style="list-style-type: none"> • Competitor analysis of sustainable products and services, benchmarking their sustainability credentials. 	<ul style="list-style-type: none"> • Experimental in how sustainability can provide mutual opportunities for the organisation and its customers. 	<ul style="list-style-type: none"> • Storytelling and engaging communications on benefits of sustainable products while avoiding greenwashing.
 Operational	<ul style="list-style-type: none"> • Knowledge of company sustainability vision, credentials and sustainability related product information. • Awareness of product and impact to consumers to encourage sustainable consumption. 	<ul style="list-style-type: none"> • Ability to communicate effectively and match sustainable products to targeted customer segments. 	<ul style="list-style-type: none"> • Open-minded and curious about the role of sustainability in driving commercial growth. 	<ul style="list-style-type: none"> • Uses sustainability credentials to support marketing/selling of products.

States:				
Variance by sector:	<p>In retail and consumer businesses, sustainable consumerism will increasingly need to be carefully managed by adopting new (circular) business models, sustainable alternatives and thoughtful marketing that speaks to customer values. Marketing professionals will need to expand their sustainability knowledge in order to be credible and effective communicators. The level of knowledge will depend on the product or service offering.</p>			<p>Experience:</p>








Processes raw materials, manages activities to produce and deliver products and services.


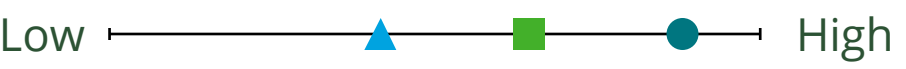


Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

Operations, distribution and manufacturing

Core competencies:	Complex planning, attention to detail, engineering, technical machinery/equipment operation.		
Key external drivers for the change:	<ul style="list-style-type: none"> Gig economy and universal basic income. Globalisation, nationalisation and 'mutualisation'. 	<ul style="list-style-type: none"> AI, automation, robotics and blockchain. Ageing workforce and pensions. 	

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> Awareness of upcoming sustainability standards and how they might pose as risks or opportunities for business. 	<ul style="list-style-type: none"> Utilises real-time data for scenario planning and modelling to inform decisions on operations and production. 	<ul style="list-style-type: none"> Leads a continuous improvement culture that minimises impact on the environment from project delivery. 	<ul style="list-style-type: none"> Drives their teams and organisation to capitalise on opportunities to operate in an innovative and sustainable way.
 Management	<ul style="list-style-type: none"> Knowledge of health, safety and sustainable standards. 	<ul style="list-style-type: none"> Sustainable project management, ability to track and report on sustainability risks and opportunities in real-time. 	<ul style="list-style-type: none"> Engages with internal and external teams and champions sustainable change management. 	<ul style="list-style-type: none"> Identifies opportunities to conduct operations more sustainably, highly adaptable to change.
 Operational	<ul style="list-style-type: none"> Knowledge of new materials, techniques, tools and standards to deliver sustainable solutions according to their specialism. 	<ul style="list-style-type: none"> Retro fitting. Re-engineering. Use of digital or operational tools. 	<ul style="list-style-type: none"> Compliant with best practice and is responsive to new sustainable ways of working. 	<ul style="list-style-type: none"> Builds in efficiency and minimises waste. Able to deliver sustainable solutions.

States:				
Variance by sector:	<p>Within the logistics and operations sector, management and leadership will require strong data and analytics capabilities. Whereas in engineering and manufacturing, managers will need more technical ability to work with innovative materials and new equipment/tools. At the operational level the technical skills required will be significant and vary drastically between roles (e.g. heat pump engineer vs recycling truck driver) and sector (e.g. energy and utilities vs consumer goods). Specialist training for these skills will be significant.</p>			<p>Experience:</p> 








Generates competitive advantage by developing new/improved products, services, processes.

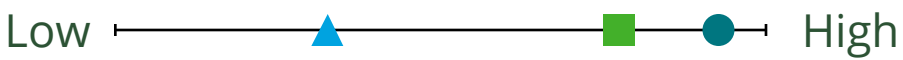
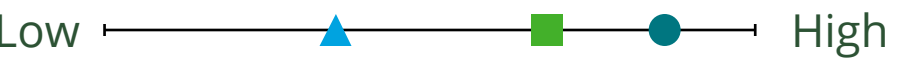

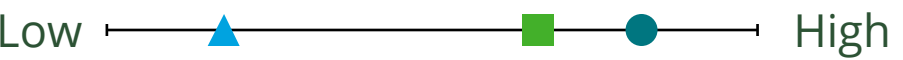

Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

R&D and innovation

Core competencies:	Creativity and design, problem solving, entrepreneurship, continuous improvement.		
Key external drivers for the change:	<ul style="list-style-type: none"> • Consumerism and the circular economy. • Diversity and Inclusion. 	<ul style="list-style-type: none"> • AI, automation, robotics and blockchain. • Gig economy and universal basic income. 	

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> • Awareness of sustainability trends, products, services and innovations (competitors and new to market). 	<ul style="list-style-type: none"> • Ability to co-create ideas and concepts with engineers, scientists and data scientists to utilise novel materials and manufacturing processes to create sustainable solutions. 	<ul style="list-style-type: none"> • Influences and enables colleagues and teams to integrate sustainability into process/product design, sees sustainability as core to design. 	<ul style="list-style-type: none"> • Collaborates internally and externally to share knowledge and drive systemic and environmentally-impactful innovation.
 Management	<ul style="list-style-type: none"> • Knowledge of innovation relating to sustainable design and circular economy principles (e.g. remanufacturing and materials science). 	<ul style="list-style-type: none"> • Planning, analysis and execution of circularity principles in design. 	<ul style="list-style-type: none"> • Leads a continuous improvement culture that minimises waste, GHGs and delivers high spec products. 	<ul style="list-style-type: none"> • Utilises leading technologies and design theory to develop products that generate positive planetary and commercial outcomes.
 Operational	<ul style="list-style-type: none"> • Aware of key sustainability certifications, regulation and sustainable. 	<ul style="list-style-type: none"> • Uses modelling tools to assess the impact of product design. 	<ul style="list-style-type: none"> • Collaborative, explorative, experimental. 	<ul style="list-style-type: none"> • Designs products to have minimal impact on the environment, within environmental regulations.

States:				
Variance by sector:	<p>In retail, manufacturing and construction where physical products/assets are sold, deep subject matter expertise on materials science, retrofitting and remanufacturing, will become increasingly significant. In asset heavy sectors, new business models such as product as a service systems will be explored, which will need economics and modellers. In Finance and Digital sectors, where non-physical services are sold, innovation will focus on sustainable service design, customer experience and shifting behaviours towards lower carbon alternatives.</p>			<p>Experience:</p> 




Manages the procurement of resources, storage of inventory and value generation.

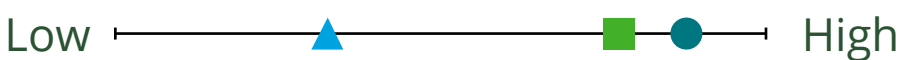


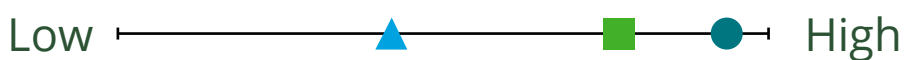
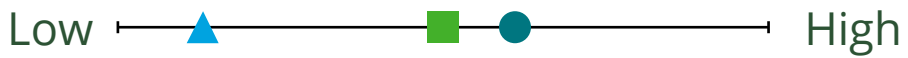
Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

Supply Chain (internal and external)

Core competencies:	Strategic sourcing/category management, negotiating, ethical sourcing, supplier engagement.		
Key external drivers for the change:	<ul style="list-style-type: none"> • Post-COVID recovery and levelling up. • Consumerism and the circular economy. 	<ul style="list-style-type: none"> • AI, automation, robotics and blockchain. • Globalisation, nationalisation and 'mutualisation'. 	

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> • Aware of upcoming regulations and standards for sustainable procurement. 	<ul style="list-style-type: none"> • Use tools for contract management, tracking scope 3 emissions and KPI setting, aligned to organisational social value ambitions. 	<ul style="list-style-type: none"> • Market scanning, shaping and engagement with suppliers to innovate toward climate positive solutions. 	<ul style="list-style-type: none"> • Net zero supply chain management and ethical sourcing that generates value for the organisation.
 Management	<ul style="list-style-type: none"> • Deep understanding of environmental issues and their impact on the value chain. • Aware of carbon footprints, traceability and ethical standards. 	<ul style="list-style-type: none"> • Supplier analysis for new sustainable products and services on the market. 	<ul style="list-style-type: none"> • Highly collaborative across internal and external teams, maximises social value and supply chain transparency. 	<ul style="list-style-type: none"> • Relationship building and collaboration that drives innovation internally and with suppliers that maximises social.
 Operational	<ul style="list-style-type: none"> • Understands organisational sustainability vision, plans and targets. 	<ul style="list-style-type: none"> • Data analysis on total carbon and impact on nature from supply chain activity. 	<ul style="list-style-type: none"> • Compliant with best practice and is able to adopt new ways of working. 	<ul style="list-style-type: none"> • Effective reporting and traceability of products and services.

States:				
Variance by sector:	<p>Construction, manufacturing and tech (hardware) have a critical reliance on specialist products or products that have limited sustainable alternatives (e.g. steel, concrete, precious metals), will have a slower transition to a net zero supply chain. For these sectors working closely with suppliers to shape requirements and drive innovation to wards sustainable solutions will be key. In retail, global supply chain management will require increasingly complex data analysis, tracking and reporting of carbon and biodiversity impacts at every stage.</p>			<p>Experience:</p> 


Management of cash flow, forecasting and mobilising investment in clean and resilient growth.

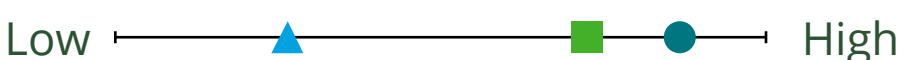
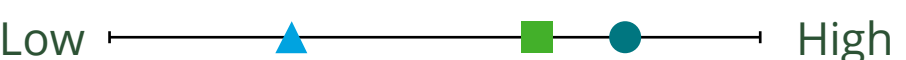



Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

 Finance

Core competencies:	Finance reporting, Leadership and management, Audit and Assurance, Taxation.		
Key external drivers for the change:	<ul style="list-style-type: none"> • TCFD and TNFD. • Green taxonomy for investments. 		<ul style="list-style-type: none"> • AI, automation, robotics and blockchain. • Post-COVID recovery and levelling up.

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> • Awareness of TCFD and TNFD, and the material financial impacts of climate change on the organisation. 	<ul style="list-style-type: none"> • Sustainable investment management • Internal green innovation fund management. 	<ul style="list-style-type: none"> • Value creation mindset across social, economic and environmental. • Future proofing, forward thinking. 	<ul style="list-style-type: none"> • Develops investment business cases that meet the needs of today without impacting the needs of the future.
 Management	<ul style="list-style-type: none"> • Awareness of green financial products such as bonds, investments and pensions. 	<ul style="list-style-type: none"> • Sustainable accounting and reporting. • Sustainable pension planning. 	<ul style="list-style-type: none"> • Highly collaborative across internal teams, driving toward climate positive solutions. 	<ul style="list-style-type: none"> • Risk management across all financial products and services in the face of climate change risk.
 Operational	<ul style="list-style-type: none"> • Understands the impacts of climate change pose a risk to long term financial investments. 	<ul style="list-style-type: none"> • Data analysis for sustainable reporting. • Climate scenario analysis. 	<ul style="list-style-type: none"> • Compliant with environmental best practice and is able to adopt new ways of working. 	<ul style="list-style-type: none"> • Sustainable financial reporting encompassing climate, nature and biodiversity.

States:				
Variance by sector:	<p>For sectors such as construction, investment decisions for infrastructure, buildings and physical assets will need to factor in risks associated with climate change (e.g. increased risk of flooding) and biodiversity gain. Other sectors with significant physical asset portfolios such as Retail, Hospitality and Travel should consider building technical skills and competencies in financial modelling and forecasting for better climate change resilience.</p>			<p>Experience:</p> 

Proactively reduces legal liability, enforces compliance with regulation, standards and policies.

Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

Legal				
Core competencies:	Legal proficiency, negotiation, risk management.			
Key external drivers for the change:	<ul style="list-style-type: none"> TCFD and TNFD. Green taxonomy for investments. 		<ul style="list-style-type: none"> AI, automation, robotics and blockchain. Post-COVID recovery and levelling up. 	
Green skills:	Knowledge	Technical skills	Behaviours	Competencies
Leadership	<ul style="list-style-type: none"> Awareness of TCFD and TNFD and impacts to organisation. 	<ul style="list-style-type: none"> Application of TNFD framework to inform organisational decision making. 	<ul style="list-style-type: none"> Highly adaptable to changes in policy, seizing sustainability incentives or offering alternatives. 	<ul style="list-style-type: none"> Horizon scanning for new environmental regulation, anticipating impacts and advising on mitigations and new ways of working.
Management	<ul style="list-style-type: none"> Deep understanding of environmental regulation and the impact policy. 	<ul style="list-style-type: none"> Audit and compliance checks with sustainability policy and regulation. 	<ul style="list-style-type: none"> Advises and coaches teams on forthcoming environmental regulation and the impact that this has on the organisation. 	<ul style="list-style-type: none"> 'Green' risk management across all legal portfolio.
Operational	<ul style="list-style-type: none"> Understands the impacts of climate change and the role of regulation. 	<ul style="list-style-type: none"> Updates to the environmental legal register in EMS. 	<ul style="list-style-type: none"> Compliant with environmental best practice and is able to adopt new ways of working. 	<ul style="list-style-type: none"> Compliance and adaptation to legal and ethical standards in the 'green' domain/s.
States:	Low —▲—■—●— High	Low —▲—■—●— High	Low —▲—■—●— High	Low —▲—■—●— High
Variance by sector:	<p>The travel sector will see a fundamental shift in the Green Economy, legal teams in this sector will need a deeper understanding of sustainability and environmental regulation to be able to advise on new policy, grants, incentives and subsidies. The ability to horizon scan environmental regulation and interpret impacts will enable organisations to maintain comparative advantage. Nonetheless, the core competencies of interpreting law, negotiating and decision making will remain the same.</p>			<p>Experience:</p> <p>Low —▲—■—●— High</p>

Workforce planning, management, recruitment and development.

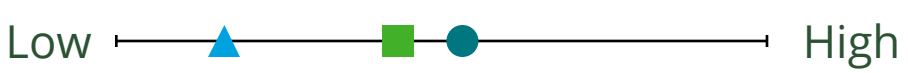

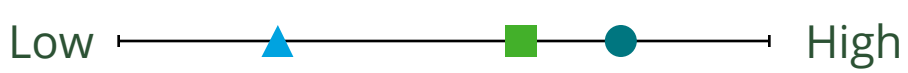
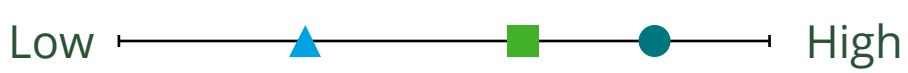

Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

 **HR/people**

Core competencies:	Leadership, change management, strategic planning, coaching, training.		
Key external drivers for the change:	<ul style="list-style-type: none"> Diversity and inclusion. Purpose and value led organisations. 	<ul style="list-style-type: none"> AI, automation, robotics and blockchain. Aging workforce and pensions. 	

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> Aware of trends towards purpose driven roles to attract and retain staff. 	<ul style="list-style-type: none"> Builds incentive structures, talent reviews and development that are aligned to sustainability strategy. 	<ul style="list-style-type: none"> Creates a culture of organisational and individual learning of green skills tailored to jobs. 	<ul style="list-style-type: none"> Builds future capability in green skills and jobs. Change management that brings the workforce on the sustainable journey.
 Management	<ul style="list-style-type: none"> Aware of green skills needs in all roles across the organisation. 	<ul style="list-style-type: none"> Develops unbiased recruitment practices to encourage diversity. Delivers training for core green skills. 	<ul style="list-style-type: none"> Coaches and mentors employees through greener sustainability careers. 	<ul style="list-style-type: none"> Attracts and retains employees in roles that deliver social value.
 Operational	<ul style="list-style-type: none"> Aware of staff motivations to lead a more sustainable lifestyle and their interest and understanding of climate change. 	<ul style="list-style-type: none"> Writes job roles, competency frameworks and learning pathways that incorporate green skills. 	<ul style="list-style-type: none"> Champions organisational sustainability initiatives to create a purpose driven organisation. 	<ul style="list-style-type: none"> Follows sustainable recruitment processes, minimising impact.

States:				
Variance by sector:	<p>Development of people and their green skills across all sectors will be crucial in realising a Green Economy. In retail and hospitality, HR leaders will need to prioritise developing 'soft' green skills for staff, focusing on green customer behaviour change. Whereas, HR leads in construction, manufacturing and energy will need to focus on developing 'hard' green skills for technical specialists (e.g. heat pump engineers, EV electricians, hydrogen technicians).</p>			<p>Experience:</p> 








Developing, securing, and storing electronic data, maintenance of software and equipment.

Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

IT, digital and data

Core competencies:	Problem solving, data science, coding, continuous improvement.		
Key external drivers for the change:	<ul style="list-style-type: none"> Diversity and inclusion. Purpose and value led organisations. 	<ul style="list-style-type: none"> AI, automation, robotics and blockchain. Aging workforce and pensions. 	

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> Awareness of the digital carbon footprint of digital portfolio. 	<ul style="list-style-type: none"> Equipment optimisation and carbon footprint analysis (energy use, waste). 	<ul style="list-style-type: none"> Mindset shift to include sustainability considerations across whole lifecycle for IT equipment, data management and infrastructure. 	<ul style="list-style-type: none"> Horizon scanning for new green technologies and their application.
 Management	<ul style="list-style-type: none"> Awareness of the role of automation, data and robotics in delivering sustainability solutions. 	<ul style="list-style-type: none"> Equipment product lifecycle analysis. 	<ul style="list-style-type: none"> Highly collaborative across internal teams, driving toward climate positive IT solutions. 	<ul style="list-style-type: none"> Relationship building and collaboration that drives green innovation.
 Operational	<ul style="list-style-type: none"> Awareness of new technologies that can enable more sustainable operations. 	<ul style="list-style-type: none"> Sustainable data management, archiving and storage. Eco coding. 	<ul style="list-style-type: none"> Coaches colleagues on sustainable use of IT (e.g. eco browsers, paperless). 	<ul style="list-style-type: none"> Problem solving and creation of digital solutions that minimise the impact on the planet.

States:				
Variance by sector:	<p>Finance, health and retail will have a higher propensity to use technology and data in the services that they deliver to customers. This will give rise to AI and automation and the need for data scientists and sustainable IT managers to look after the growing Digital carbon footprint. The technology sector in particular will need to minimise its energy use and innovate in the way it handles and stores data globally, skills on eco coding, programming and information architecture will be required.</p>			<p>Experience:</p>








Management of buildings, assets and health and safety.

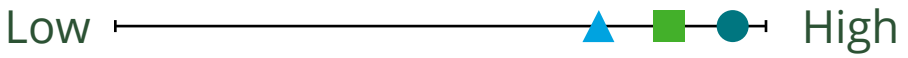
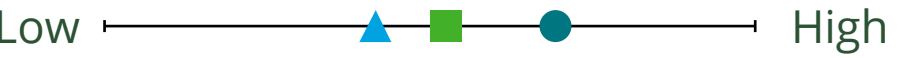
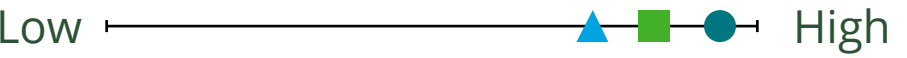
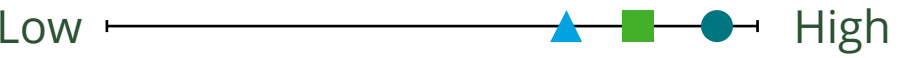
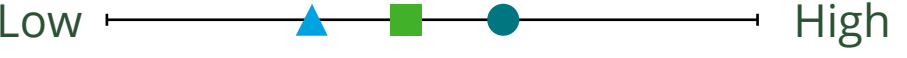
Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

Estates and physical assets

Core competencies:	Project management, engineering, contract management.		
Key external drivers for the change:	<ul style="list-style-type: none"> Sustainability regulations. Urbanisation and counter-urbanisation. 	<ul style="list-style-type: none"> AI, automation, robotics and blockchain. Post-COVID recovery and levelling up. 	

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> Understands how new technologies and data can be used to improve estate/asset sustainability. 	<ul style="list-style-type: none"> Decision making and forecasting asset depreciation and maintenance as a result of climate change. 	<ul style="list-style-type: none"> Leads by example on sustainable behaviours, inspiring others internally and externally. 	<ul style="list-style-type: none"> Innovates and develops policies and sustainability initiatives that deliver social value.
 Management	<ul style="list-style-type: none"> Awareness of sustainability standards, regulations and policies. 	<ul style="list-style-type: none"> GHG emission analysis, carbon reporting. Land use mapping/modelling. 	<ul style="list-style-type: none"> Champions sustainability initiatives, raising awareness and driving action internally. 	<ul style="list-style-type: none"> Drives operational excellence by planning, organising and leading legal and ethical standards.
 Operational	<ul style="list-style-type: none"> Understands how their role contributes to the sustainability agenda and twin challenge of climate and biodiversity. 	<ul style="list-style-type: none"> Waste stream management. Operations and engineering of net zero estate. Ecology, conservation, preservation. 	<ul style="list-style-type: none"> Follows sustainability best practice and complies with EMS policies. 	<ul style="list-style-type: none"> Seeks continuous improvement in use of resources (land, water, energy).

States:				
Variance by sector:	<p>Construction industries will need to manage natural capital, needing conservation and land management competencies compared to industries such as Finance which have largely office based property portfolio.</p> <p>The Professional Service sector (e.g. accounting, law) will need to consider how they track and manage their carbon footprint based on a largely remote workforce (e.g. working from home or field based workers).</p>			<p>Experience:</p> 

Shaping mission, vision, and future of the organisation.

Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

Executive board and non executive

Core competencies:	Leadership, horizon scanning, developing individuals and organisations.		
Key external drivers for the change:	<ul style="list-style-type: none"> Diversity and inclusion. Purpose and value led organisations. 	<ul style="list-style-type: none"> AI, automation, robotics and blockchain. Aging workforce. 	

Green skills:	Knowledge	Technical skills	Behaviours	Competencies
Leadership	<ul style="list-style-type: none"> Awareness of climate change strategic risks and opportunities and how they relate to the organisation. 	<ul style="list-style-type: none"> Effective communications on sustainability goals, influencing workforce and the public. 	<ul style="list-style-type: none"> Mindset shift to include sustainability considerations across organisation. 	<ul style="list-style-type: none"> Leading and inspiring internal and external teams, showcasing how sustainability can be a benefit.
Management	<ul style="list-style-type: none"> Understanding of sustainability trends, regulations and policy. 	<ul style="list-style-type: none"> Monitor strategy implementation that maximises social value. 	<ul style="list-style-type: none"> Highly collaborative across internal and external teams, driving toward climate positive business solutions. 	<ul style="list-style-type: none"> Embedding sustainability in strategic planning.
Operational	<ul style="list-style-type: none"> Awareness of green skills needs for the future workforce. 	<ul style="list-style-type: none"> Create, implement and track metrics for sustainability. 	<ul style="list-style-type: none"> Coaches colleagues on sustainable trends, strategic priorities and goals. 	<ul style="list-style-type: none"> Relationship building and collaboration that drives innovation.

States:				
Variance by sector:	<p>In the finance service sector, executives will be required to consider rapidly changing environmental regulations and continually review and meet investor expectations. In retail, executives will need to shift mindsets on growth in terms of sales, as business employ new sustainable business models. In the Professional Service sector, leaders will need to be aware of how sustainability impacts the whole economy and the challenges faced by other sectors in order to advise, coaching, and build credible relationships.</p>			<p>Experience:</p>



Public sector

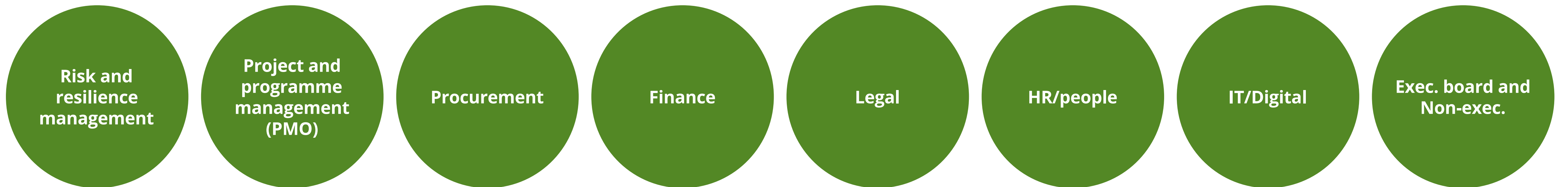
'model organisation'

MODEL ORGANISATION – PUBLIC SECTOR

Every organisation's green skills and jobs future can be described through its job families. Job families are categories of jobs defined independently of the structure they sit in.



Front office job families



Back office job families








Management of buildings, assets and health and safety.

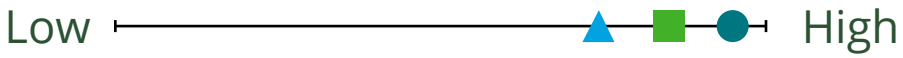

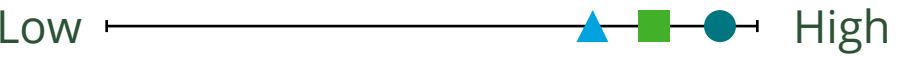
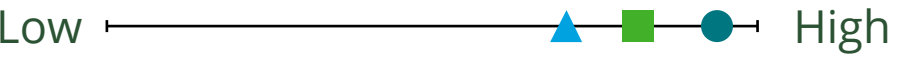
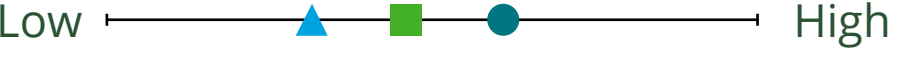
Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

Property and estates

Core competencies:	Project management, engineering, contract management.		
Key external drivers for the change:	<ul style="list-style-type: none"> Sustainability regulations. Urbanisation and counter-urbanisation. 		<ul style="list-style-type: none"> AI, automation, robotics and blockchain. Post-COVID recovery and levelling up.

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> Understands how new technologies and data can be used to improve estate/asset sustainability. 	<ul style="list-style-type: none"> Decision making and forecasting asset depreciation and maintenance as a result of climate change. 	<ul style="list-style-type: none"> Leads by example on sustainable behaviours, inspiring others internally and externally. 	<ul style="list-style-type: none"> Innovates and develops policies and sustainability initiatives that deliver social value.
 Management	<ul style="list-style-type: none"> Awareness of sustainability standards, regulations and policies. 	<ul style="list-style-type: none"> Greenhouse gas emission analysis, carbon reporting. Land use mapping/modelling. 	<ul style="list-style-type: none"> Champions sustainability initiatives, raising awareness and driving action internally. 	<ul style="list-style-type: none"> Drives operational excellence by planning, organising and leading legal and ethical standards.
 Operational	<ul style="list-style-type: none"> Understands how their role contributes to the sustainability agenda and twin challenge of climate and biodiversity. 	<ul style="list-style-type: none"> Waste stream management. Operations and engineering of net zero estate. 	<ul style="list-style-type: none"> Follows sustainability best practice and complies with EMS policies. 	<ul style="list-style-type: none"> Seeks continuous improvement in use of resources (land, water, energy).

States:				
Variance by sector:	<p>Estates management in a natural capital business will require significant conservation and land management competencies compared to an estates/buildings heavy property portfolio.</p> <p>Organisations will need to consider how they track and manage their carbon footprint derived where they have a largely remote workforce (e.g. working from home or field based workers).</p>			<p>Experience:</p> 

Establishes rules and procedures that guide the actions of citizens within their jurisdiction.

Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050



Policy and research

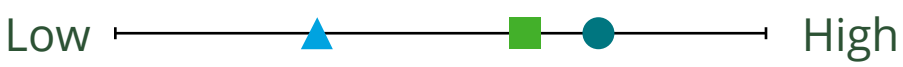

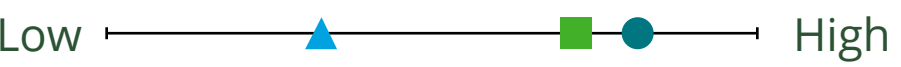

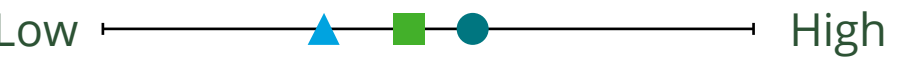
Core competencies:

Knowledge of legislative processes, effective policy communication, quantitative and qualitative research.

Key external drivers for the change:

- Post-COVID recovery and levelling up.
- Globalisation, nationalisation and 'mutualisation'.
- AI, automation, robotics and blockchain.
- Ageing workforce and pensions.

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> • Deep knowledge of the political system, the sustainability agenda nationally and internationally. 	<ul style="list-style-type: none"> • Ability to make decisions on policy based on sustainability enabled decision making frameworks/tools. 	<ul style="list-style-type: none"> • Drives transparency and social value creation in policy and decision making, across multiple stakeholders. 	<ul style="list-style-type: none"> • Relationship building and collaboration that drives international environmental cooperation.
 Management	<ul style="list-style-type: none"> • Knowledge of environmental legislation, regulations and policies. 	<ul style="list-style-type: none"> • Ability to assess and model social, environmental and economic impacts of policies and measures. 	<ul style="list-style-type: none"> • Optimises the policy making process to enable timely action on pressing sustainability issues. 	<ul style="list-style-type: none"> • Effective implementation, enforcement and monitoring of environmental policies.
 Operational	<ul style="list-style-type: none"> • Understands how sustainability considerations plays a key part in policy and regulation setting. 	<ul style="list-style-type: none"> • Designs social research that takes into account the effect of climate change on every day life. 	<ul style="list-style-type: none"> • Is inquisitive about how sustainability can be built into effective policy. 	<ul style="list-style-type: none"> • Supports the development of policies with embedded social value.

States:				
Variance by sector:	<p>Some government departments will inherently have a deeper understanding and expertise in environmental issues (e.g. DEFRA and BEIS) and will be researching and setting the policy direction for others to align with. For these government departments the green skills base should be higher to begin with therefore making the transition to 'all jobs greener' easier.</p>			<p>Experience:</p> 

Keeps the public informed, changes behaviours at scale, promotes local and international initiatives.

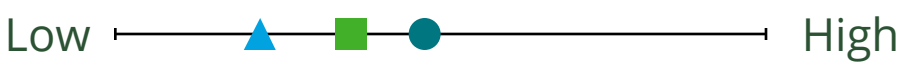
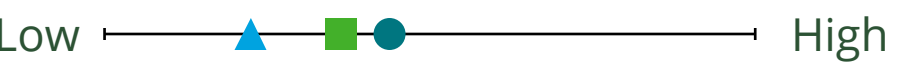

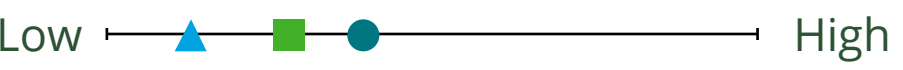
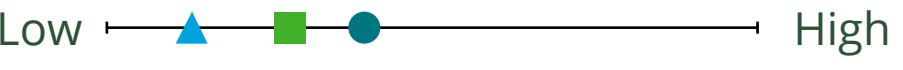
Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

External communication, PR and media

Core competencies:	Effective communication, influence and persuasion, data analysis.		
Key external drivers for the change:	<ul style="list-style-type: none"> Post-COVID recovery and levelling up. Globalisation, nationalisation and 'mutualisation'. 		<ul style="list-style-type: none"> AI, automation, robotics and blockchain. Ageing workforce and pensions.

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> Informed about latest sustainability trends. 	<ul style="list-style-type: none"> Ability to coordinate sustainability public campaigns. Ability to build campaigns using sustainable methods and materials. 	<ul style="list-style-type: none"> Highly collaborative across teams, fostering transparent comms on sustainability initiatives and issues. 	<ul style="list-style-type: none"> Relationship building and collaboration that raises the profile and action on climate change with the public.
 Management	<ul style="list-style-type: none"> Knowledge of government sustainability vision, plan and upcoming policies and initiatives that affect the public. 	<ul style="list-style-type: none"> Ability to analyse and tweak sustainability messaging for different audiences to drive behaviour change. 	<ul style="list-style-type: none"> Enables the public to shift their mindset on sustainability through effective and meaningful comms. 	<ul style="list-style-type: none"> Storytelling and engaging communications on sustainability.
 Operational	<ul style="list-style-type: none"> Understands key sustainability messages, language and terminology. 	<ul style="list-style-type: none"> Ability to write effective sustainability messages to the public (use of green language and terminology). 	<ul style="list-style-type: none"> Is inquisitive about how sustainability can be built into comms. 	<ul style="list-style-type: none"> Effective communication on sustainability and climate related issues.

States:				
Variance by sector:	<p>In order to land messages effectively and inspire positive behaviour change, simple sustainability language/terminology, facts and personal stories will be important. Therefore this job family will have a high sustainability knowledge requirement, while the core competencies of storytelling, relationship building and effective communication will remain largely the same.</p>			<p>Experience:</p> 








Protects the Government’s public interest and ensures its fit for the future.

Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

! Risk and resilience management

Core competencies:	Data analysis, attention to detail, scenario planning, options analysis.		
Key external drivers for the change:	<ul style="list-style-type: none"> • Post-COVID recovery and levelling up. • Globalisation, nationalisation and ‘mutualisation’. 	<ul style="list-style-type: none"> • AI, automation, robotics and blockchain. • Ageing workforce and pensions. 	

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> • Deep knowledge of environmental laws, regulations, standards and how they relate in a dynamic world. 	<ul style="list-style-type: none"> • Identifies challenges to sustainability and reframes them as opportunities. 	<ul style="list-style-type: none"> • Drives change and influences decision making based on complex risk assessment. • Builds organisational resilience. 	<ul style="list-style-type: none"> • Informs organisational strategy by embedding sustainability at the core.
 Management	<ul style="list-style-type: none"> • Understands how climate change can pose a risk to operations and awareness of preventative measures. 	<ul style="list-style-type: none"> • Proficient in use of tools, techniques and systems to manage multiple climate risk and provide mitigations options. 	<ul style="list-style-type: none"> • Motivates compliance and puts contingency plans in place. 	<ul style="list-style-type: none"> • Builds relationships with internal stakeholders that enable better risk management and mitigation.
 Operational	<ul style="list-style-type: none"> • Awareness of the need to manage risk related to climate change. 	<ul style="list-style-type: none"> • Draws on and analyses climate data sets for risk and resilience modelling. 	<ul style="list-style-type: none"> • Continuously learning on the job to keep up with trends/impacts. 	<ul style="list-style-type: none"> • Thinks creatively about risk and supports mitigation planning.

States:				
Variance by sector:	<p>Climate change is a global issue with widespread impacts therefore for some government departments (e.g. FCDO, MOD and Home Office) an international outlook and awareness will be required to better manage prevailing risks and issues e.g. climate refugees. While more inward focused departments (e.g. DLUHC, DfT, DfE) may look to mitigate against national and local level risks.</p>			<p>Experience:</p>








Leading a team by achieving project goals, responsible for scope, schedule and budget.

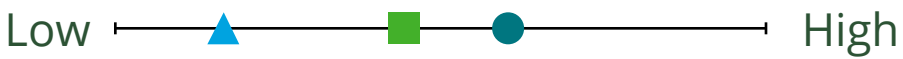

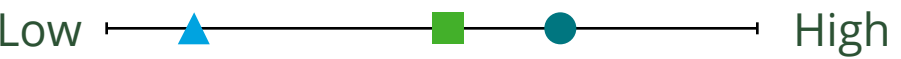


Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

Project and programme management (PMO)

Core competencies:	Team leadership, risk management, reporting, problem solving, effective communication.		
Key external drivers for the change:	<ul style="list-style-type: none"> • Post-COVID recovery and levelling up. • Purpose and value-led organisations. 	<ul style="list-style-type: none"> • AI, automation, robotics and blockchain. • Ageing workforce and pensions. 	

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> • Understands social value and how it can deliver wider programme benefits. 	<ul style="list-style-type: none"> • Programme management that focuses on realising social value. • Benefit realisation across people, planet, profit. 	<ul style="list-style-type: none"> • Leads a continuous improvement culture that minimises impact on the environment from project delivery. 	<ul style="list-style-type: none"> • Openly challenges unsustainable business behaviours and celebrates green wins. • Effective remote team management.
 Management	<ul style="list-style-type: none"> • Deep understanding of environmental issues and how they relate to their specific project. 	<ul style="list-style-type: none"> • Agile project management that considers sustainability and delivers net zero project outputs. 	<ul style="list-style-type: none"> • Engages with internal and external teams and champions sustainable, user-centric change management. 	<ul style="list-style-type: none"> • Relationship building and collaboration that drives innovation.
 Operational	<ul style="list-style-type: none"> • Understands key sustainability risks related to their project. 	<ul style="list-style-type: none"> • Uses project management tools to capture sustainability metrics. 	<ul style="list-style-type: none"> • Compliant with best practice and is able to adopt new ways of working. 	<ul style="list-style-type: none"> • Effective comms on sustainability and climate related issues.

States:				
Variance by sector:	<p>Project and programme managers will increasingly need to be key integrators and collaborators across teams and organisations, assembling, often remote, mission focused teams that deliver benefits for people, planet and profit. Leadership behaviours, like systems thinking, inspiring, challenging old ways of working and adapting to change quickly will be crucial across all sectors.</p>			<p>Experience:</p> 







Encourages open market competition, delivers value for money for UK government and the taxpayer.

Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

Procurement

Core competencies:	Strategic sourcing/category management, negotiating, ethical sourcing, supplier engagement.		
Key external drivers for the change:	<ul style="list-style-type: none"> • Post-COVID recovery and levelling up. • Consumerism and the circular economy. 		<ul style="list-style-type: none"> • AI, automation, robotics and blockchain. • Ageing workforce and pensions.

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> • Product lifecycle and supply chain. • Low carbon alternatives and product ranges. 	<ul style="list-style-type: none"> • Use tools for contract management and KPI setting, aligned to organisational social value ambitions. 	<ul style="list-style-type: none"> • Market scanning, shaping and engagement with suppliers to innovate toward climate positive solutions. 	<ul style="list-style-type: none"> • Net zero supply chain management and ethical sourcing.
 Management	<ul style="list-style-type: none"> • Deep understanding of environmental issues and how they relate to value chain. 	<ul style="list-style-type: none"> • Supplier analysis for new sustainable products and services on the market. 	<ul style="list-style-type: none"> • Highly collaborative across internal and external teams, maximises social value and supply chain transparency. 	<ul style="list-style-type: none"> • Relationship building and collaboration that drives innovation internally and with suppliers that maximises social value.
 Operational	<ul style="list-style-type: none"> • Understands government sustainability plans and targets. 	<ul style="list-style-type: none"> • Data analysis on total carbon and impact on nature from supply chain activity. 	<ul style="list-style-type: none"> • Compliant with best practice and is able to adopt new ways of working. 	<ul style="list-style-type: none"> • Effective reporting and traceability of products and services.

States:				
Variance by sector:	<p>Departments such as the NHS, who have a critical reliance on specialist products and their potential lack of alternatives will have an impact on their ability to transition to a net zero supply chain quickly. Procurement departments will need a deep understanding of the sustainable solutions on the market and work closely with suppliers to innovate.</p>			<p>Experience:</p>

Management of cash flow, forecasting and mobilising investment in clean and resilient growth.

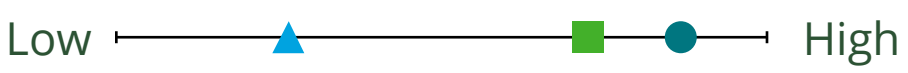
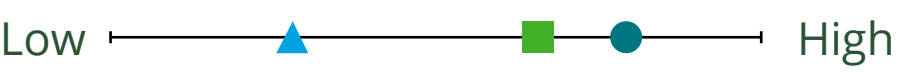
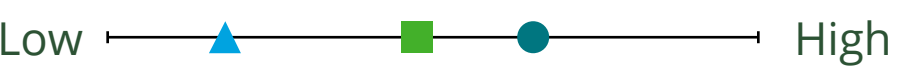


Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

 Finance

Core competencies:	Finance reporting, Leadership and management, Audit and Assurance, Taxation.		
Key external drivers for the change:	<ul style="list-style-type: none"> • TCFD and TNFD. • Green taxonomy for investments. 		<ul style="list-style-type: none"> • AI, automation, robotics and blockchain. • Post-COVID recovery and levelling up.




Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> • Awareness of TCFD and TNFD, and the material financial impacts of climate change on the organisation. 	<ul style="list-style-type: none"> • Sustainable investment management. • Internal green innovation fund management. • Sustainable accounting and reporting. 	<ul style="list-style-type: none"> • Value creation mindset across social, economic and environmental. 	<ul style="list-style-type: none"> • Developing investment business cases that meet the needs of today without impacting the needs of the future.
 Management	<ul style="list-style-type: none"> • Awareness of green financial products such as bonds, investments and pensions. 	<ul style="list-style-type: none"> • Sustainable pension planning. 	<ul style="list-style-type: none"> • Highly collaborative across internal teams, driving toward climate positive solutions. 	<ul style="list-style-type: none"> • Risk management across all financial products and services in the face of climate change risk.
 Operational	<ul style="list-style-type: none"> • Understands the impacts of climate change pose a risk to long term financial investments. 	<ul style="list-style-type: none"> • Data analysis for sustainable reporting. 	<ul style="list-style-type: none"> • Compliant with environmental best practice and is able to adopt new ways of working. 	<ul style="list-style-type: none"> • Sustainable financial reporting.

States:				
Variance by sector:	<p>Investment decisions for infrastructure, buildings and physical assets will need to factor in risks associated with climate change e.g. increased risk of flooding. Government departments with a significant estates and physical assets portfolio such as MOD and MOJ should consider building technical skills and competencies in financial modelling/forecasting for climate change resilience.</p>			<p>Experience:</p> 

Proactively reducing legal liability, enforcing regulation, administering the justice system.

Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

Legal					
Core competencies:		Legal proficiency, negotiation, risk management.			
Key external drivers for the change:		<ul style="list-style-type: none"> TCFD and TNFD. Green taxonomy for investments. 	<ul style="list-style-type: none"> AI, automation, robotics and blockchain. Post-COVID recovery and levelling up. 		
Green skills:		Knowledge	Technical skills	Behaviours	Competencies
 Leadership	<ul style="list-style-type: none"> Awareness of TCFD and TNFD and impacts to organisation. 	<ul style="list-style-type: none"> Application of TNFD framework to inform organisational decision making. 	<ul style="list-style-type: none"> Highly adaptable to changes in policy, seizing sustainability incentives or offering alternatives. 	<ul style="list-style-type: none"> Horizon scanning for new environmental regulation, anticipating impacts and advising on mitigations and new ways of working. 	
 Management	<ul style="list-style-type: none"> Deep understanding of environmental regulation and the impact policy. 	<ul style="list-style-type: none"> Audit and compliance checks with sustainability policy and regulation. 	<ul style="list-style-type: none"> Advises and coaches teams on forthcoming environmental regulation and the impact that this has on the organisation. 	<ul style="list-style-type: none"> Risk management across all legal portfolio. 	
 Operational	<ul style="list-style-type: none"> Understands the impacts of climate change and the role of regulation. 	<ul style="list-style-type: none"> Updates to the environmental legal register in EMS. 	<ul style="list-style-type: none"> Compliant with environmental best practice and is able to adopt new ways of working. 	<ul style="list-style-type: none"> Compliance and adaptation to legal and ethical standards. 	
States:		Low —▲—■—●— High	Low —▲—■—●— High	Low —▲—■—●— High	Low —▲—■—●— High
Variance by sector:		Some government organisations will be inherently more involved in driving forward the government’s green agenda, through policy and investment. Legal teams supporting these organisations (e.g. DfT, Defra and BEIS) will need a deeper understanding of sustainability and environmental regulation in specific topics (e.g. net-zero transport), in comparison to other job families who may need a broad base level understanding of sustainability e.g. real estate/construction.			<p>Experience:</p> <p>Low —▲—■—●— High</p>

Workforce planning, management, recruitment and development.



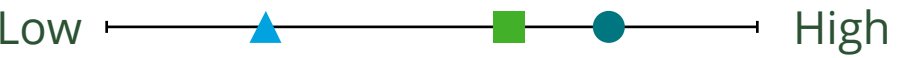
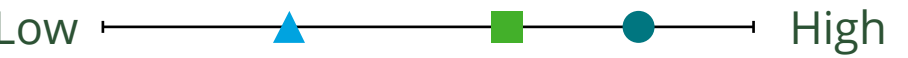
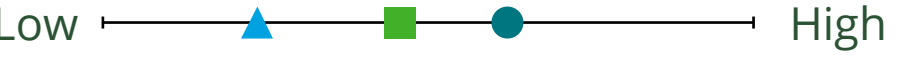
Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

 HR/people

Core competencies:	Leadership, change management, strategic planning, coaching, training.		
Key external drivers for the change:	<ul style="list-style-type: none"> Diversity and inclusion. Purpose and value led organisations. 	<ul style="list-style-type: none"> AI, automation, robotics and blockchain. Aging workforce and pensions. 	

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> Aware of trends towards purpose driven roles to attract and retain staff. 	<ul style="list-style-type: none"> Builds incentive structures, talent reviews and development that are aligned to sustainability strategy. 	<ul style="list-style-type: none"> Creates a culture of organisational and individual learning of green skills tailored to jobs. 	<ul style="list-style-type: none"> Builds future capability in green skills and jobs. Change management that brings the workforce on the sustainable journey.
 Management	<ul style="list-style-type: none"> Aware of green skills needs in all roles across the organisation. 	<ul style="list-style-type: none"> Develops unbiased recruitment practices to encourage diversity. Delivers training for core green skills. 	<ul style="list-style-type: none"> Coaches and mentors employees through greener sustainability careers. 	<ul style="list-style-type: none"> Attracts and retains employees in roles that deliver social value.
 Operational	<ul style="list-style-type: none"> Awareness of staff motivations and their understanding of climate change. 	<ul style="list-style-type: none"> Writes job roles, competency frameworks and learning pathways that incorporate green skills. 	<ul style="list-style-type: none"> Champions organisational sustainability initiatives to create a purpose driven organisation. 	<ul style="list-style-type: none"> Follows sustainable recruitment processes, minimising impact.

States:				
Variance by sector:	<p>Development of people and their green skills will be crucial in realising a Green Economy by 2050. HR leaders will need to undertake training needs analysis across job families to understand the specific organisational requirements. These will vary significantly, with some able to leverage existing sustainability knowledge (e.g. DEFRA) while others may need a more concerted green knowledge and skills boost.</p>			<p>Experience:</p> 








Developing, securing, and storing electronic data, maintenance of software and equipment.


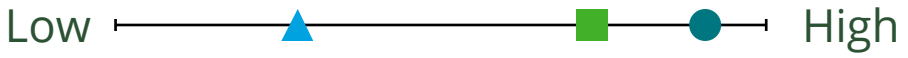



Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

IT, digital and data

Core competencies:	Problem solving, data science, coding, continuous improvement.		
Key external drivers for the change:	<ul style="list-style-type: none"> Diversity and inclusion. Purpose and value led organisations. 		<ul style="list-style-type: none"> AI, automation, robotics and blockchain. Aging workforce and pensions.

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> Awareness of the digital carbon footprint of digital portfolio. 	<ul style="list-style-type: none"> Equipment optimisation and carbon footprint analysis (energy use, waste). 	<ul style="list-style-type: none"> Mindset shift to include sustainability considerations across whole lifecycle for IT equipment, data management and infrastructure. 	<ul style="list-style-type: none"> Horizon scanning for new green technologies and their application.
 Management	<ul style="list-style-type: none"> Awareness of the role of automation, data and robotics in delivering sustainability solutions. 	<ul style="list-style-type: none"> Equipment product lifecycle analysis. 	<ul style="list-style-type: none"> Highly collaborative across internal teams, driving toward climate positive IT solutions. 	<ul style="list-style-type: none"> Relationship building and collaboration that drives green innovation.
 Operational	<ul style="list-style-type: none"> Awareness of new technologies that can enable more sustainable operations. 	<ul style="list-style-type: none"> Sustainable data management, archiving and storage. Eco coding. 	<ul style="list-style-type: none"> Coaches colleagues on sustainable use of IT (e.g. eco browsers, paperless). 	<ul style="list-style-type: none"> Problem solving and creation of digital solutions that minimise the impact on the planet.

States:				
Variance by sector:	<p>Some government departments will have a higher propensity to use technology and data in the services that they deliver. This will give rise to AI and automation and the need for data scientists and sustainable IT managers to look after the growing digital carbon footprint.</p>			<p>Experience:</p> 








Shaping mission, vision, and future of the organisation.

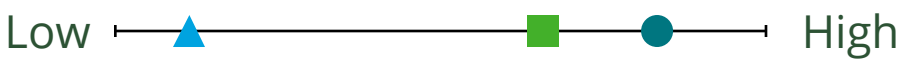
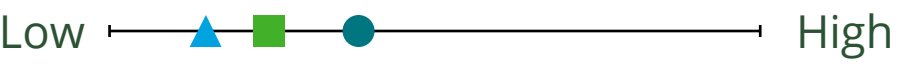
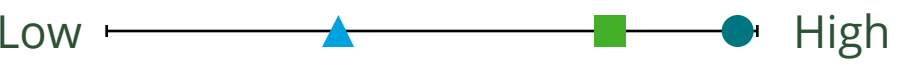
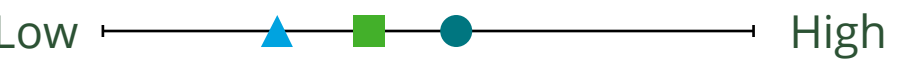

Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

Executive board and non executive

Core competencies:	Leadership, horizon scanning, developing individuals and organisations.		
Key external drivers for the change:	<ul style="list-style-type: none"> Diversity and inclusion. Purpose and value led organisations. 	<ul style="list-style-type: none"> AI, automation, robotics and blockchain. Aging workforce. 	

Green skills:	 Knowledge	 Technical skills	 Behaviours	 Competencies
 Leadership	<ul style="list-style-type: none"> Awareness of climate change strategic risks and opportunities and how they relate to the organisation. 	<ul style="list-style-type: none"> Effective communications on sustainability goals, influencing workforce and the public. 	<ul style="list-style-type: none"> Mindset shift to include sustainability considerations across organisation. 	<ul style="list-style-type: none"> Leading and inspiring internal and external teams, showcasing how sustainability can be a benefit.
 Management	<ul style="list-style-type: none"> Understanding of sustainability trends, regulations and policy. 	<ul style="list-style-type: none"> Monitor strategy implementation that maximises social value. 	<ul style="list-style-type: none"> Highly collaborative across internal and external teams, driving toward climate positive business solutions. 	<ul style="list-style-type: none"> Embedding sustainability in strategic planning.
 Operational	<ul style="list-style-type: none"> Awareness of green skills needs for the future workforce. 	<ul style="list-style-type: none"> Create, implement and track metrics for sustainability. 	<ul style="list-style-type: none"> Coaches colleagues on sustainable trends, strategic priorities and goals. 	<ul style="list-style-type: none"> Relationship building and collaboration that drives innovation.

States:				
Variance by sector:	<p>To lead and inspire an organisation fit for the Green Economy, leaders will need to have awareness and understanding of how sustainability impacts their organisation. Therefore this job family will have a high sustainability knowledge requirement, while the core competencies of leadership, coaching, relationship building and effective communication will remain the same.</p>			<p>Experience:</p> 



Organisational

blockers and enablers

This section summarises the common blockers to green skills adoption and a number of potential enablers to overcome them. These blockers and enablers outline the discussions and views of a range of sustainability professionals captured through a series of interviews and roundtables. The blockers and enablers have been mapped to the ‘green’ maturity matrix levels, to show typical challenges faced and potential opportunities at each stage of green skills transition.

Draw inspiration from these common blockers and enablers and see which may apply to your organisation. For in-depth explanations of each blocker and enabler, as well as a selection of case studies of organisations taking action, read the full report [here](#).

1.

Maturity matrix

- Map your organisation’s maturity in relation to its ability to address green challenges and its green capability of internal functions
- Use the maturity matrix to highlight areas for improvement and explore new ways to transition your organisation towards a green future

2.



Blueprint of a model organisation

- See how green skills can be embedded into job families across a ‘model organisation’
- Identify green skills gaps across job families and use this simplistic model as a conversation starter with relevant teams

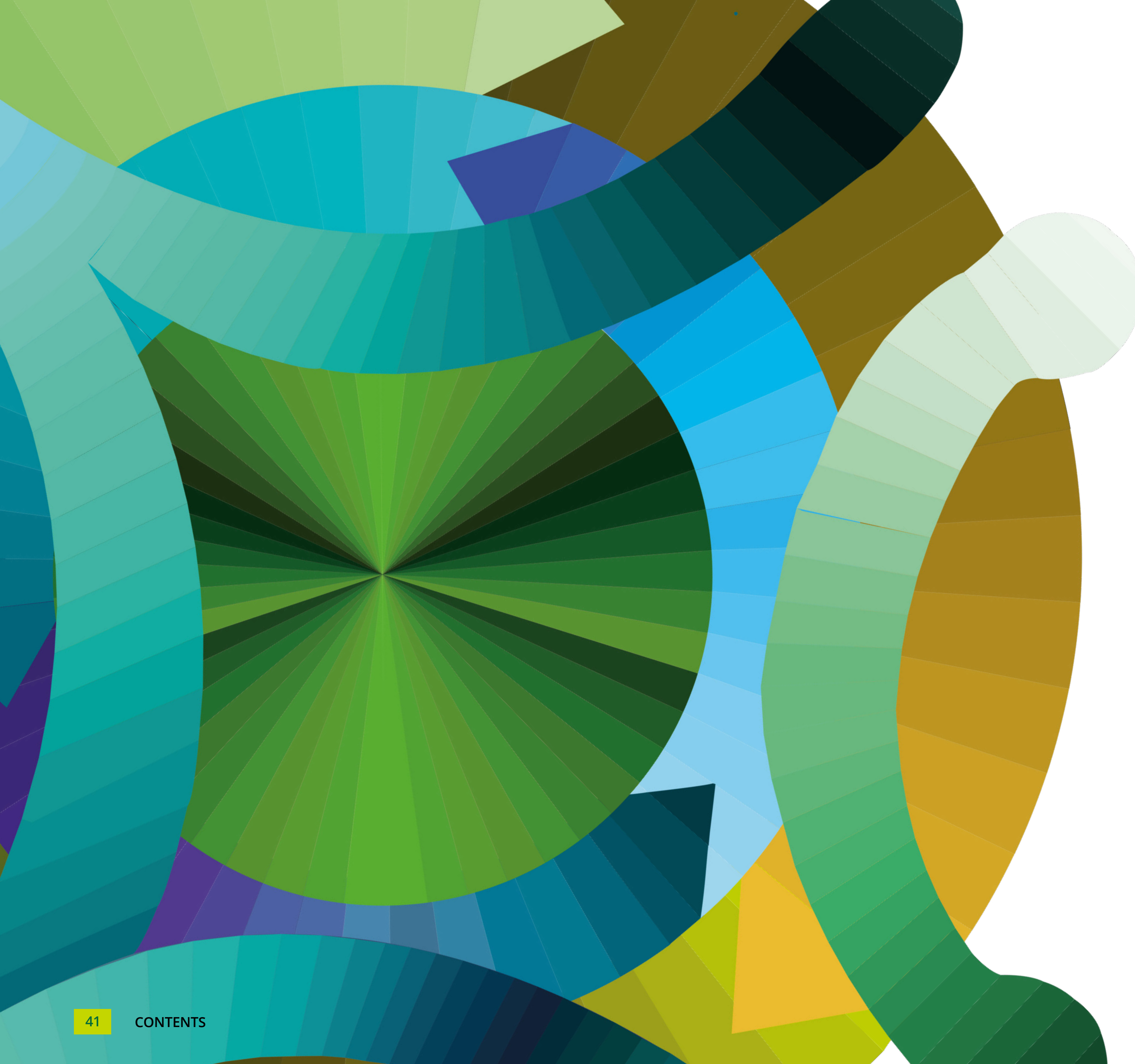
>>3.

Blockers and enablers

- Explore the common blockers and enablers discussed at interviews and roundtables with sustainability professionals
- Consider whether these apply to your organisation and how they could be used to facilitate the transition towards green skills for your workforce

Maturity	Blocker	Description	Potential Enablers
 <p>Level 1: Understanding</p>	<p>Establishing a base level of knowledge</p>	<p>Employees have limited understanding of the green transition, why sustainable practices are important, and how they will affect their day-to-day roles, business, sector, and the UK economy generally</p>	<ul style="list-style-type: none"> • Employee engagement campaigns with clear and consistent messaging on sustainability • Role-specific training • Interactive Environmental Management System (EMS) that shows environmental performance and impact
	<p>Leadership understanding of the value of green skills</p>	<p>Leaders have limited understanding of how sustainability and green skills could add value in their organisation and are unclear on the business case for change</p>	<ul style="list-style-type: none"> • Presenting the business case for green skills • Showcasing quick wins with job families that are already changing
 <p>Level 2: Developing</p>	<p>Limited strategy, planning and investment</p>	<p>Organisations are not sure where the gaps in green skills are, or how to measure and prioritise them. Lack of a clear strategy and plan of action means investment is hard to secure</p>	<ul style="list-style-type: none"> • Use the model organisation blueprint to identify green skill gaps across job families in your organisation • Work with Learning and Development functions to create development plans
	<p>Rigid processes and structures inflexible to change</p>	<p>While governance is important for supporting change, bureaucracy and red tape can hinder the ability to flex ways of working in order to adopt new green behaviours and develop a green culture</p>	<ul style="list-style-type: none"> • Forming mission-based teams to focus on outcomes • Utilise green networks which may sit across organisation structures, to share learning
	<p>Competing priorities and time management challenges</p>	<p>Green skills training is seen as time-intensive</p> <p>Competing priorities mean that sustainability practices are seen as less important or as an additional ask on top of busy schedules</p>	<ul style="list-style-type: none"> • Blended learning in the form of modular training and on the job learning • Prioritisation of work based on company values • Reorganisation of team structures to reflect priorities • Adoption of agile working

Maturity	Blocker	Description	Potential Enablers
 <p>Level 3: Performing</p>	<p>Leaders wary of acting first</p>	<p>Future uncertainty and cautious risk management mean that leadership is unwilling to pursue sustainability innovation</p>	<ul style="list-style-type: none"> • Clear policy and regulatory direction from government • Green grants and investments into early-stage innovation • Leadership peer-to-peer networks and sharing of lessons learned
	<p>Green skills are not embedded for the long term</p>	<p>Investment in green skills and initiatives consists of one-off activities, with limited focus on maintaining green capabilities and behaviours across the organisation It is difficult to track and measure the value green skills bring to job families and the organisation as a whole</p>	<ul style="list-style-type: none"> • Climate related financial disclosure, science based targets and social value objectives set at the organisational level • Role-specific incentives, performance reviews and KPIs linked to environmental and wider sustainable practices • Continuous green skills learning and development e.g. conferences, professional networks, peer-to-peer learning • Management and leadership role modelling of green behaviours to instil a positive culture
 <p>Level 4: Leading</p>	<p>Supply chain and partners maturity</p>	<p>Suppliers and partners are not so advanced in their green skills journey, causing misalignment in ways of working</p>	<ul style="list-style-type: none"> • Supplier forums and engagement to collaboratively improve, supplier upskilling, and certification • Building social value KPIs into the lifecycle of contracts to enable monitoring and measurement
	<p>Lack of specialist talent</p>	<p>Limited specialist talent with technical green skills, and the organisation struggles to attract or access specialist talent</p>	<ul style="list-style-type: none"> • Government and industry working together to develop early career learning pathways and apprenticeship routes for new talent • Government and industry run green jobs and careers fairs and school outreach programmes



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