

Green Skills for Net Zero: Mapping Workforce Needs and Opportunities

3rd September 2025



Hosts



**Marie
Godward**



**Karolina
Rucinska**

Knowledge Transfer Managers –
Net Zero, Innovate UK
Business Connect



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Housekeeping

Post your questions for our guest speakers in the Q&A section at the bottom of your screen

Slides and the session recording will be shared after the webinar



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About Us

Innovate UK Business Connect exists to connect innovators with new partners and new opportunities beyond their existing thinking – accelerating ambitious ideas into real-world solutions.



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Our Network



46,229
Unique
Organisations



72%
Small

15%
Medium

13%
Large



335,478
innovators



**Every university
in the UK**



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**Business
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Innovate UK Net Zero Living Programme



A £60 million, three-year programme that aims to help places and businesses across the UK to **accelerate** the delivery of the transition to net zero.

Two core focus areas

Providing support to 52 local authorities, their partners and communities to overcome non-technical systemic barriers to the scaling and adoption of net zero solutions.

Supporting businesses to better understand and respond to the needs, opportunities and barriers preventing the large-scale roll out of net zero solutions.



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 <https://iuk-business-connect.org.uk/programme/net-zero-living/>



Net zero is rapidly reshaping workforce demands and generating new economic opportunities.



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**Rebecca
Turner**



ISEP



**Flora
Newbigin**



Design Council



**Rachel
Hutchison**



Design Council



**Heidi
Barnard**



NHS Supply
Chain



**Liz
Gallagher**



NESTA



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The Institute of Sustainability and Environmental Professionals

Rebecca Turner

Senior Manager

Careers and Education



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Who is ISEP?

The Institute of Sustainability and Environmental Professionals (ISEP)

– formerly known as IEMA –

is the global membership body that sets the standard for anyone wanting sustainable change that delivers for the environment, society, and the economy.

Together, we are the professional voice on sustainability and the environment.



What do we do?



Advance careers and nurture talent

by offering world-class training, practical guidance, cutting-edge evidence and insights, alongside awarding professional recognition.



Create collaborations and build partnerships

to influence government policy and legislation, deliver best-practice across business, and inspire change in society.



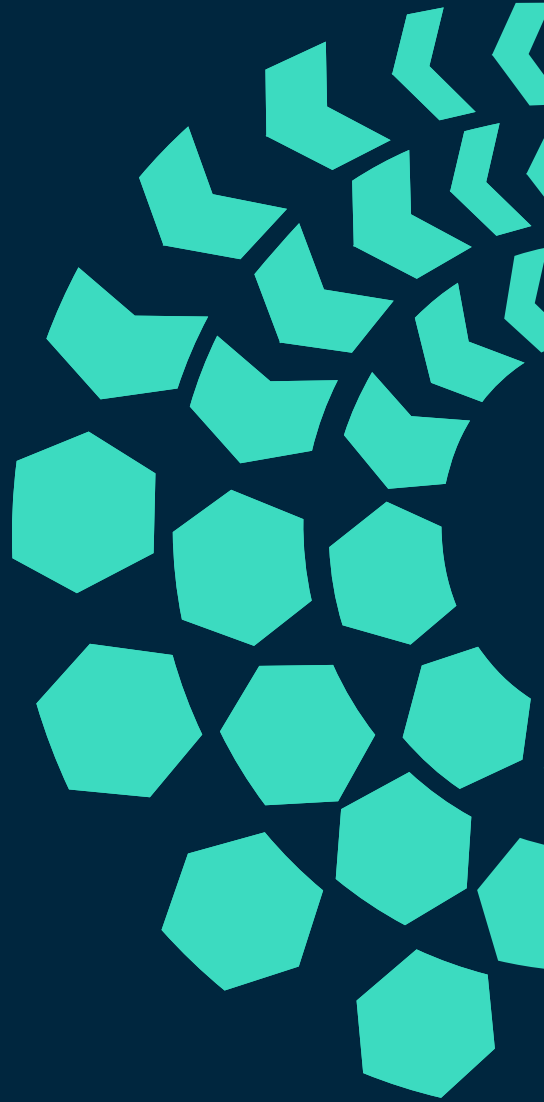
Empower you and ensure excellence

by offering training and networks, sharing best practice and knowledge, and developing world-leading professional standards.

Your development

The ISEP Sustainability Skills Map sets out the knowledge and skills required of sustainability professionals at all stages in their career.

- 13 competencies
- Membership standards by level

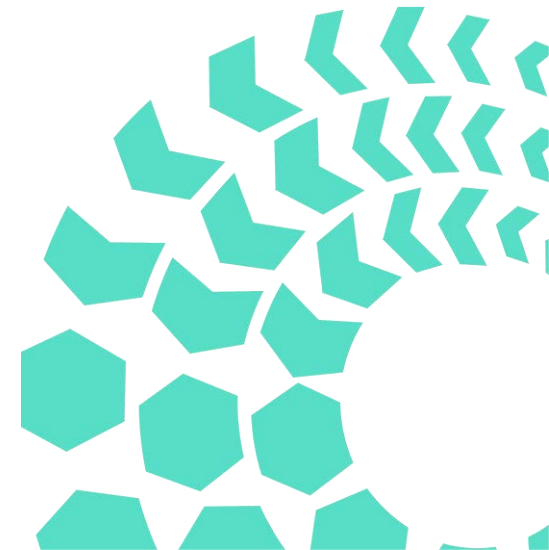


Core knowledge competencies

1. Fundamentals of Sustainability
2. Principles and Issues of Business Governance

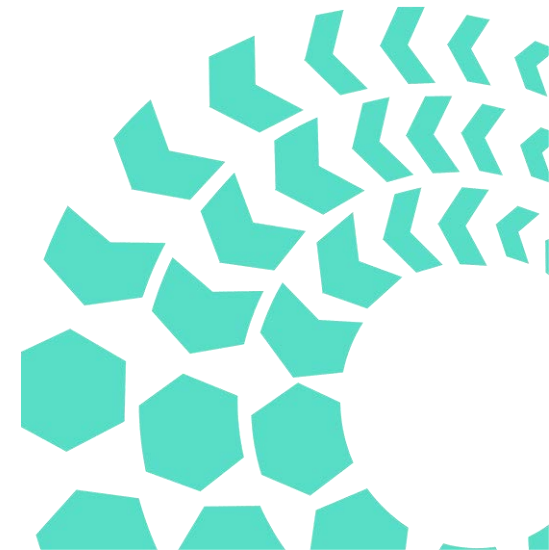
Technical knowledge competencies

3. Issues and Principles
4. Policy and Legislation
5. Management and Assessment Tools
6. Innovative and Leading Practices



Skills for sustainable leadership

7. Analytical Thinking
8. Problem Reframing and Resolution
9. Effective Communication
10. Relationship Development
11. Resilience, Risk and Continual Improvement
12. Delivering Sustainable Solutions
13. Leadership for Change



What do we mean by ‘green skills’ and ‘green jobs’?



Green skills

A broad umbrella term to refer to **the technical skills, knowledge, behaviours, and capabilities** required to directly and indirectly tackle the environmental challenges we face and unlock new opportunities for growth.



Green jobs

“A ‘green job’ is defined as:

“**Employment** in an activity that **contributes to protecting or restoring the environment**, including those that **mitigate or adapt to climate change.**”

ONS 2023



Green topics

Wider environmental challenges to be addressed:

- Nature & biodiversity
- Climate change & decarbonisation
- Waste & pollution reduction
- Water resources

ISEP's Green Careers Hub





Our mission

The mission of the Hub is to promote a more sustainable future by providing access to information and opportunity around green skills, jobs and careers. The platform is designed to be a space where anybody, from any sector or background, can go to understand how they can play a role in the wider green agenda.

Everyone has a role to play.

Growing need for green skills

**Data from the IEMA-Deloitte
report from 2022:**

1 - Expansion of skills
and scope in existing
specialist sustainability
roles

2 - Increased need for
green skills in non-
specialist roles

3 - Transition of
workforces from
unsustainable sectors to
new roles

4 - Demand for green
skills in new green
sectors and
organisations

What's on the Hub?

Video content	Watch individuals in their green jobs
Case studies	What does a green job look like?
Live jobs	Get a feel for jobs in the market
Sector pages	How does green fit into each sector?
Job profiles	Example roles such as Electrician, Forester and Sustainability Manager
Information and guidance	Topics ranging from volunteering to apprenticeships

Video case study: Canal & River Trust





Testimonials

“Green Careers Hub has been a powerful tool to not only benchmark my current skills, but to clearly demonstrate what the best steps are towards professional growth.”

“The ISEP Foundation Certificate in Environmental Management provided the entry point for starting a career in an environment and sustainability role. As I did not need any prior knowledge or educational qualifications, this course was a great place to start my journey and gain a picture of sustainability that I could potentially apply to those roles.”

Useful links

1. Information on ISEP membership levels:
www.isepglobal.org/membership/individual-membership-levels/
2. Green Careers Hub:
www.greencareershup.com
3. ISEP jobs board: www.isepjobs.org





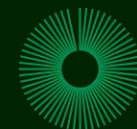
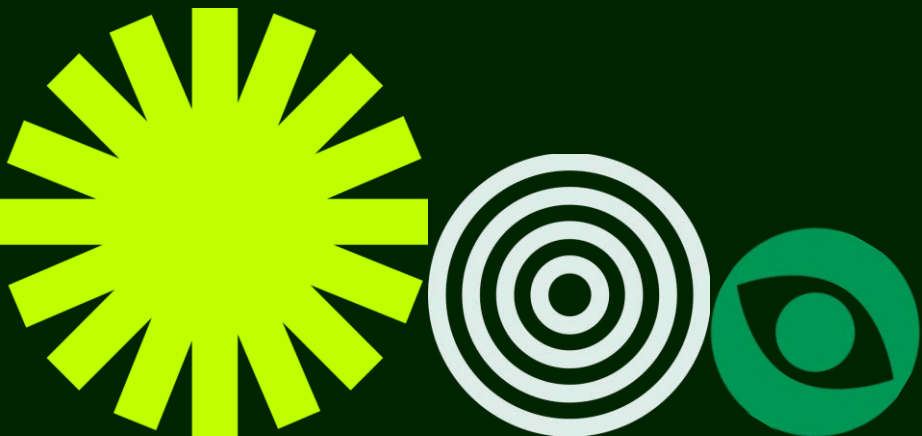
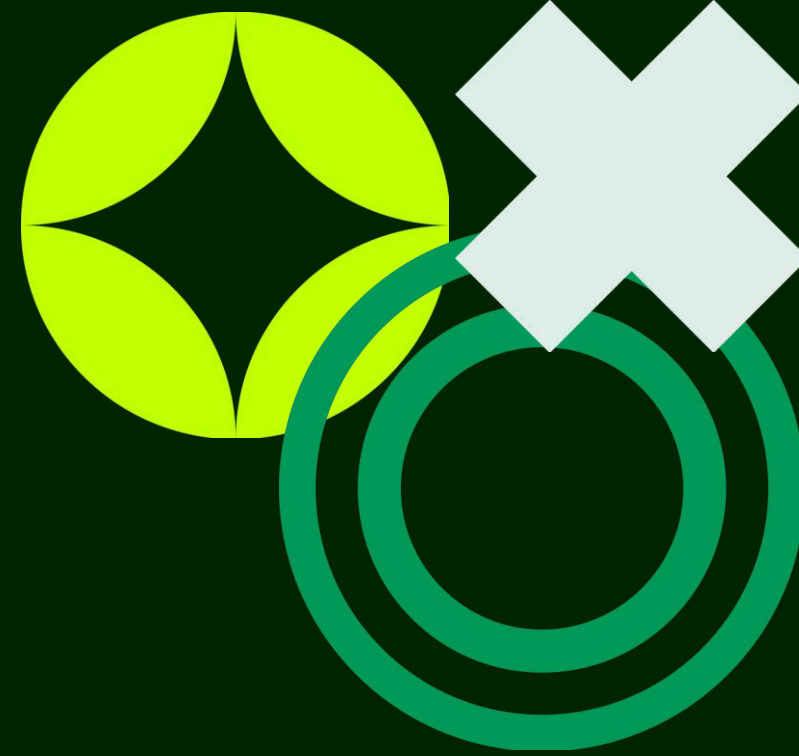
Design Council

Flora
Newbigin &
Rachel
Hutchison



Skills for Planet

The critical green skills that
all designers need



**Skills
for
Planet**

**Design
Council**



**Design
for
Planet**





Our Goal:

Upskill

1 million

designers in
Green Design skills
by 2030.

71%

of designers say
the demand for
green skills is rising.

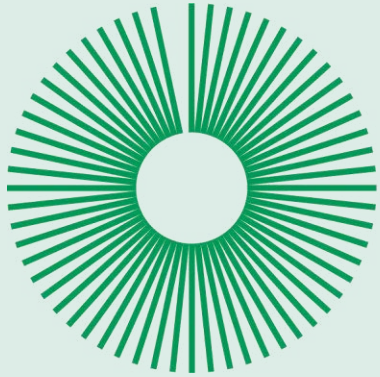
but only
43%
feel prepared.



**Skills
for
Planet**

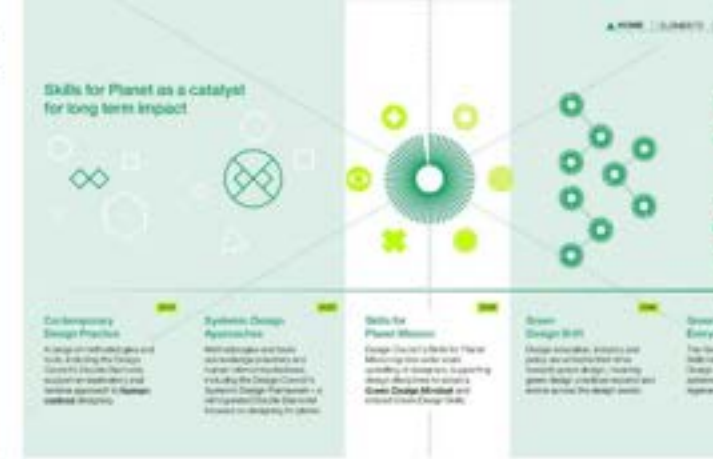
**Design
Council**

Design for Planet sits at the
heart of the **green transition**.

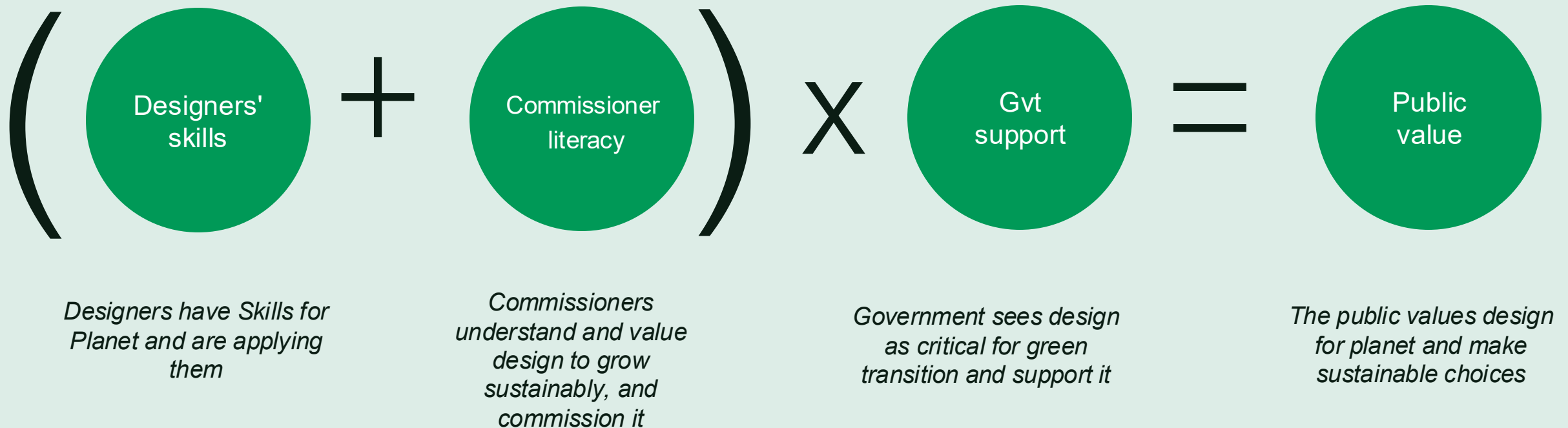


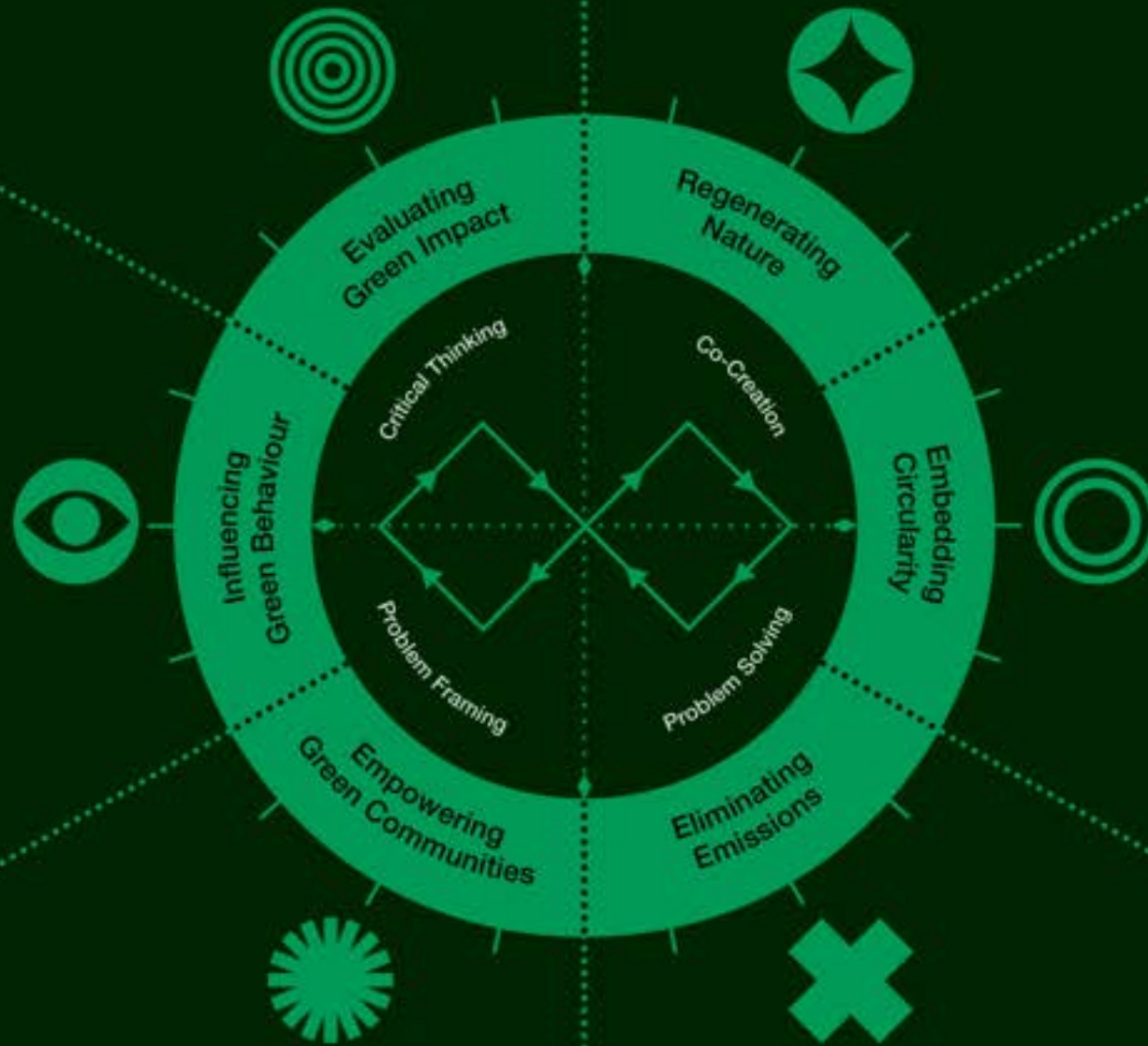
Skills for Planet

Design Council

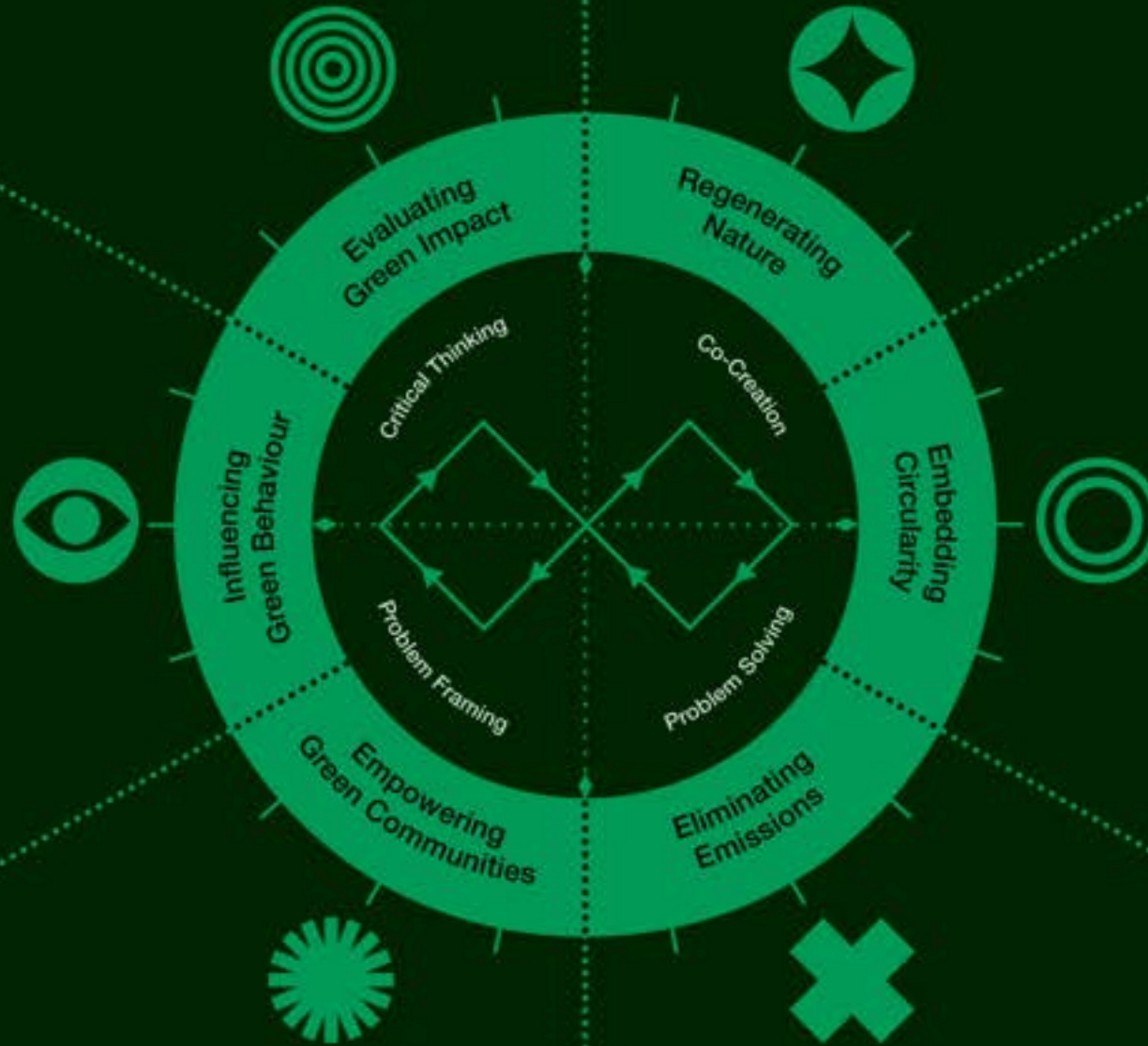


How do we ignite a movement?



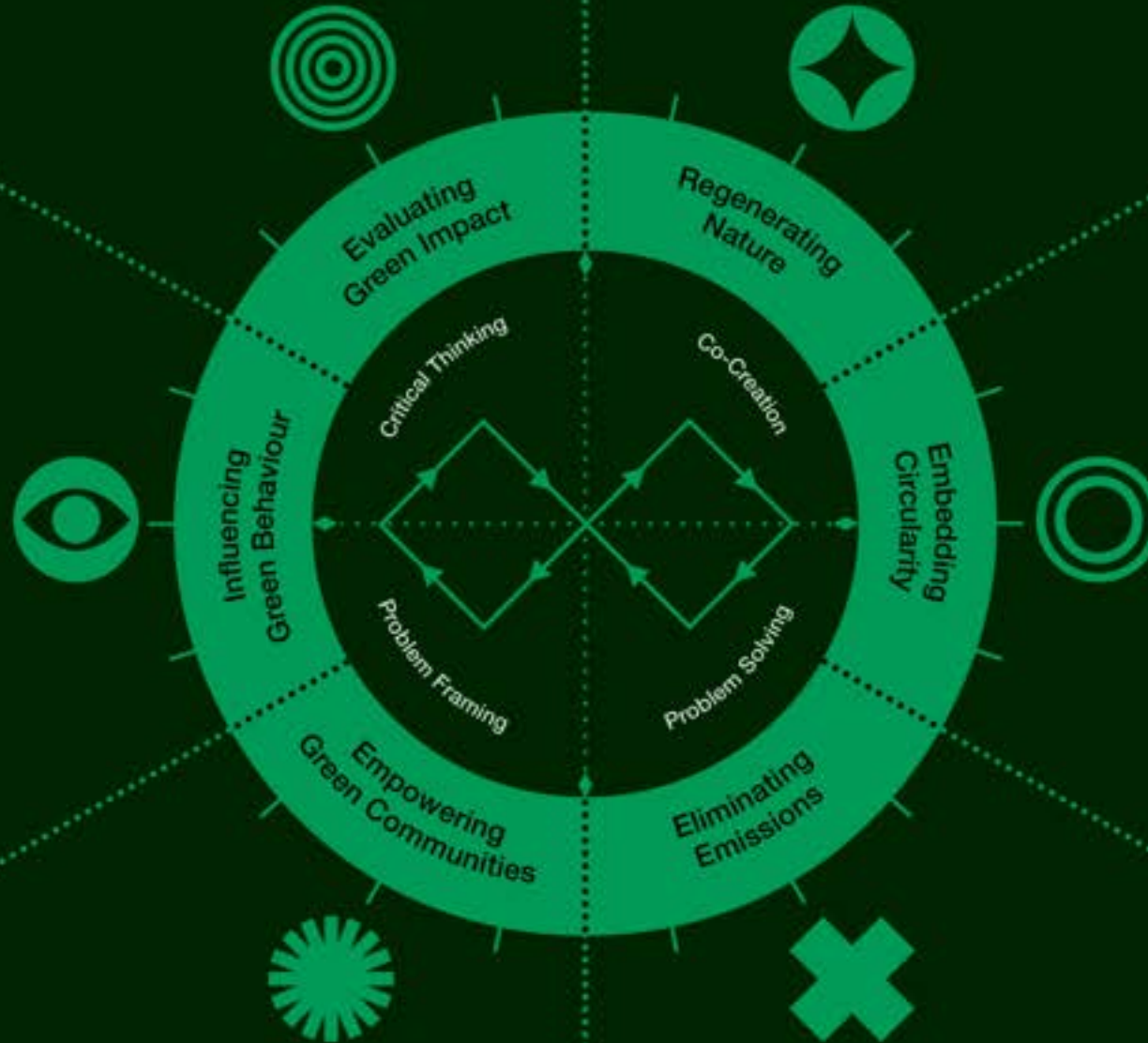


Green skills for local authorities



Green skills for local authorities

Integrating
sustainability into
procurement decisions

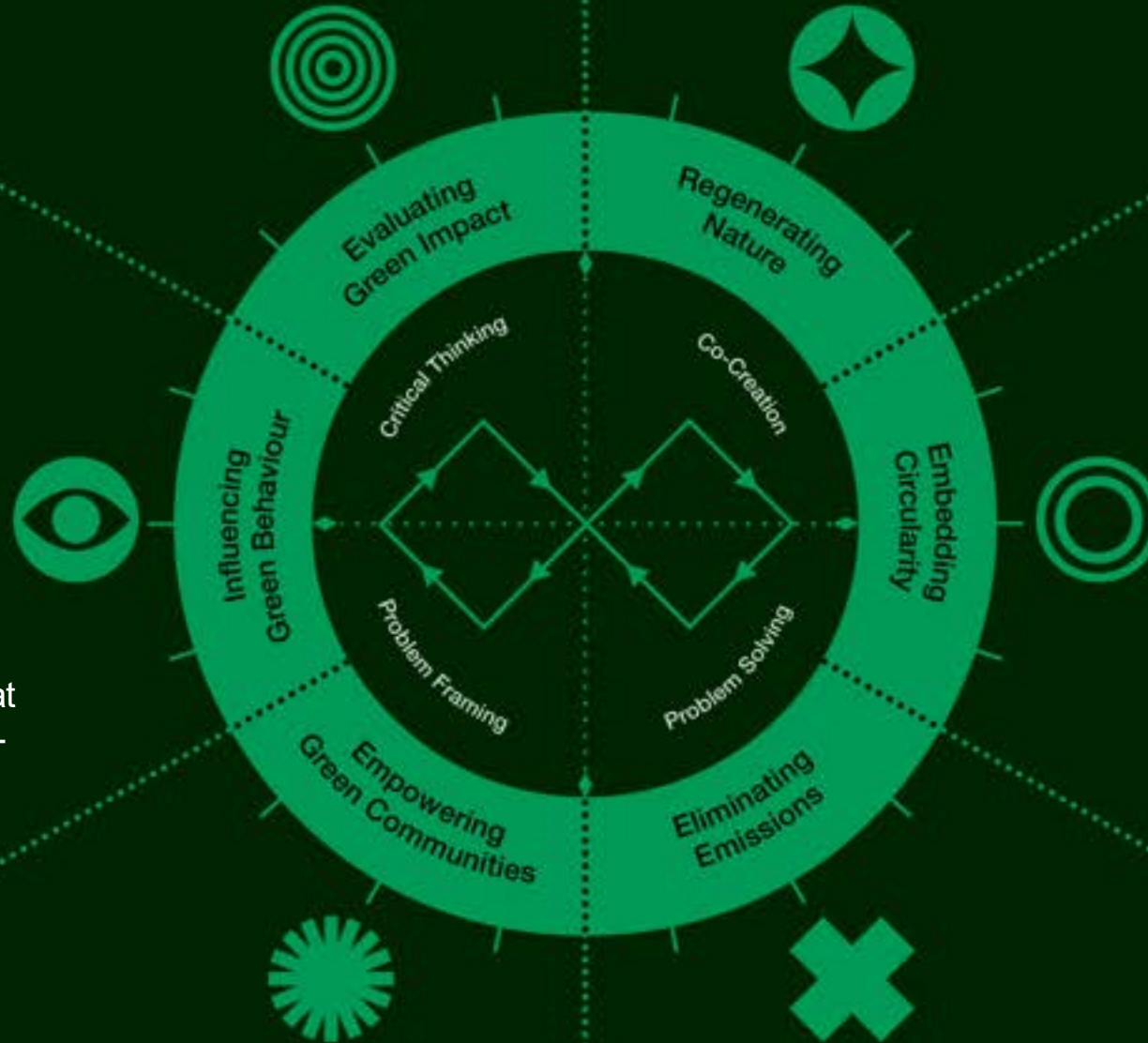


Green skills for local authorities

Integrating
sustainability into
procurement decisions



Design policies and services that
encourage citizen uptake of low-
carbon choices



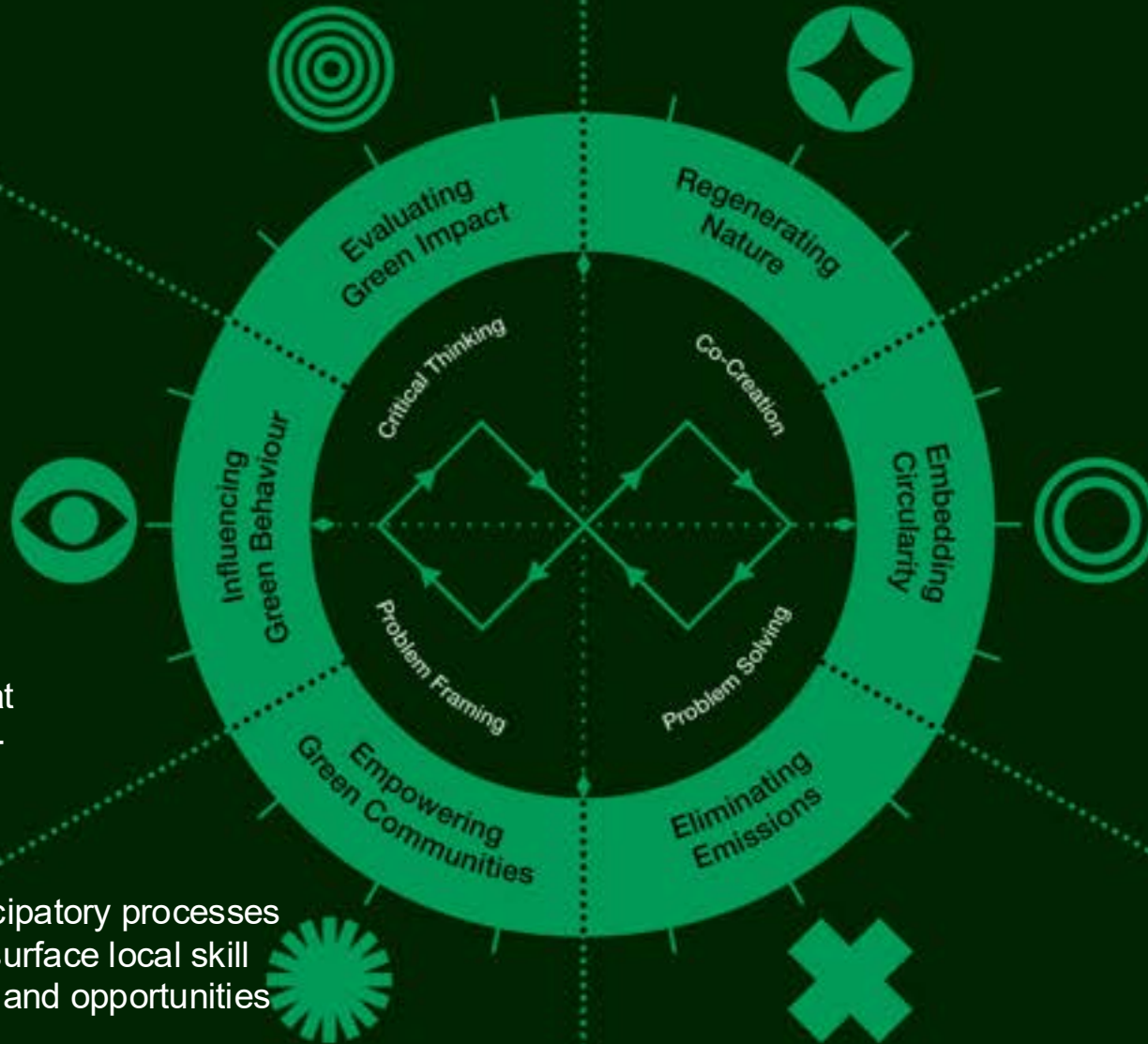
Green skills for local authorities

Integrating
sustainability into
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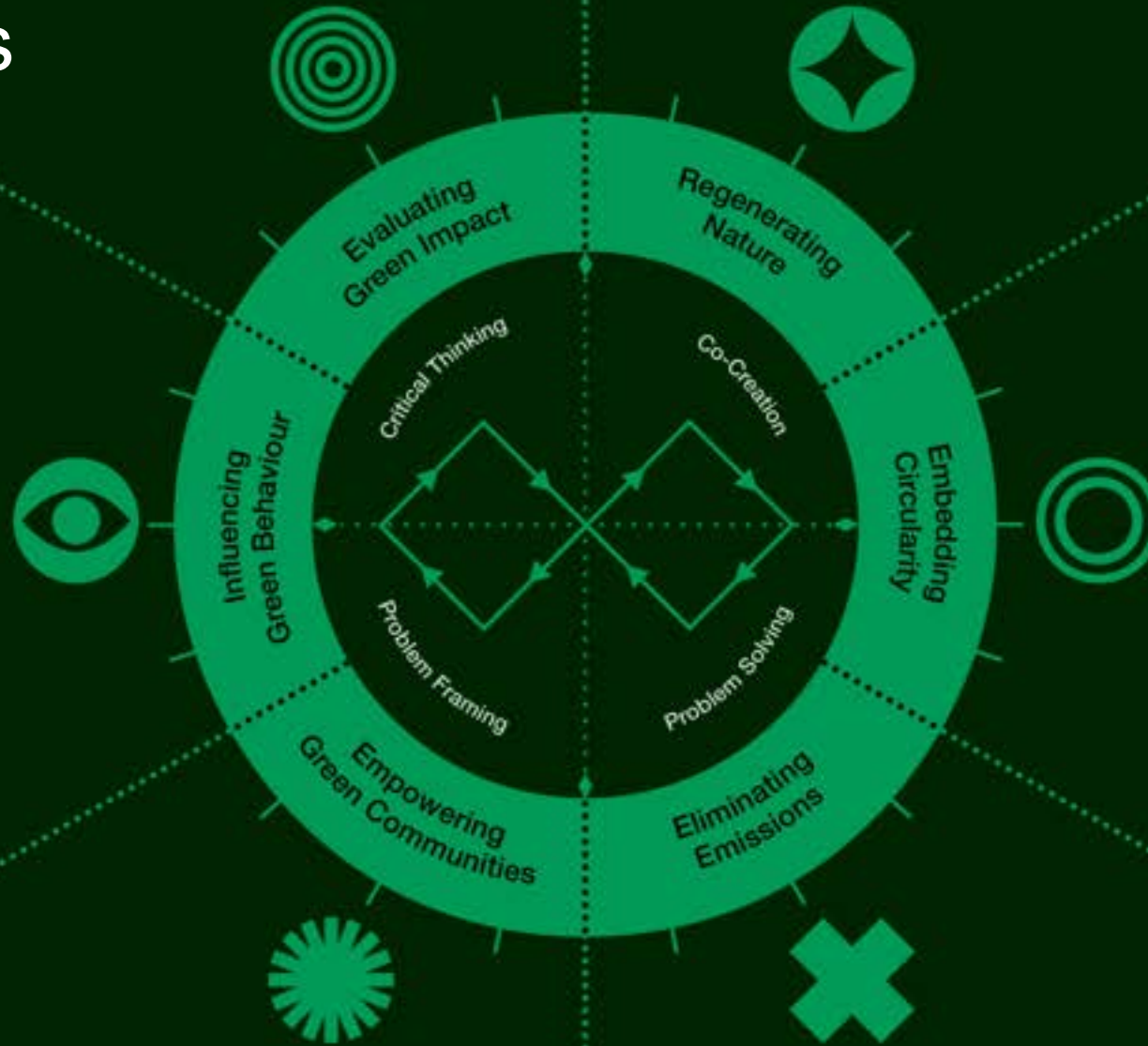


Design policies and services that
encourage citizen uptake of low-
carbon choices

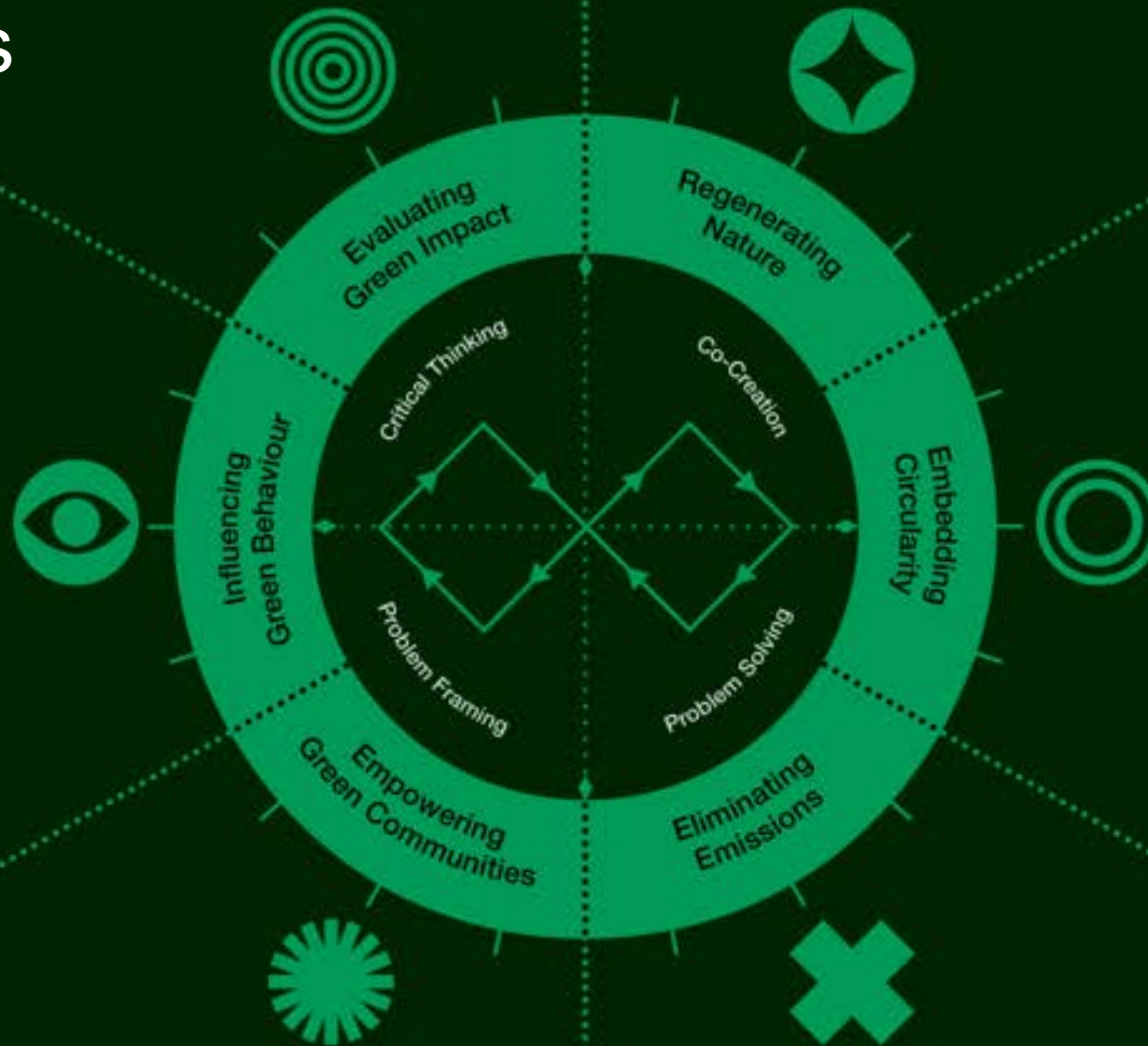
Participatory processes
that surface local skill
gaps and opportunities



Green skills for businesses

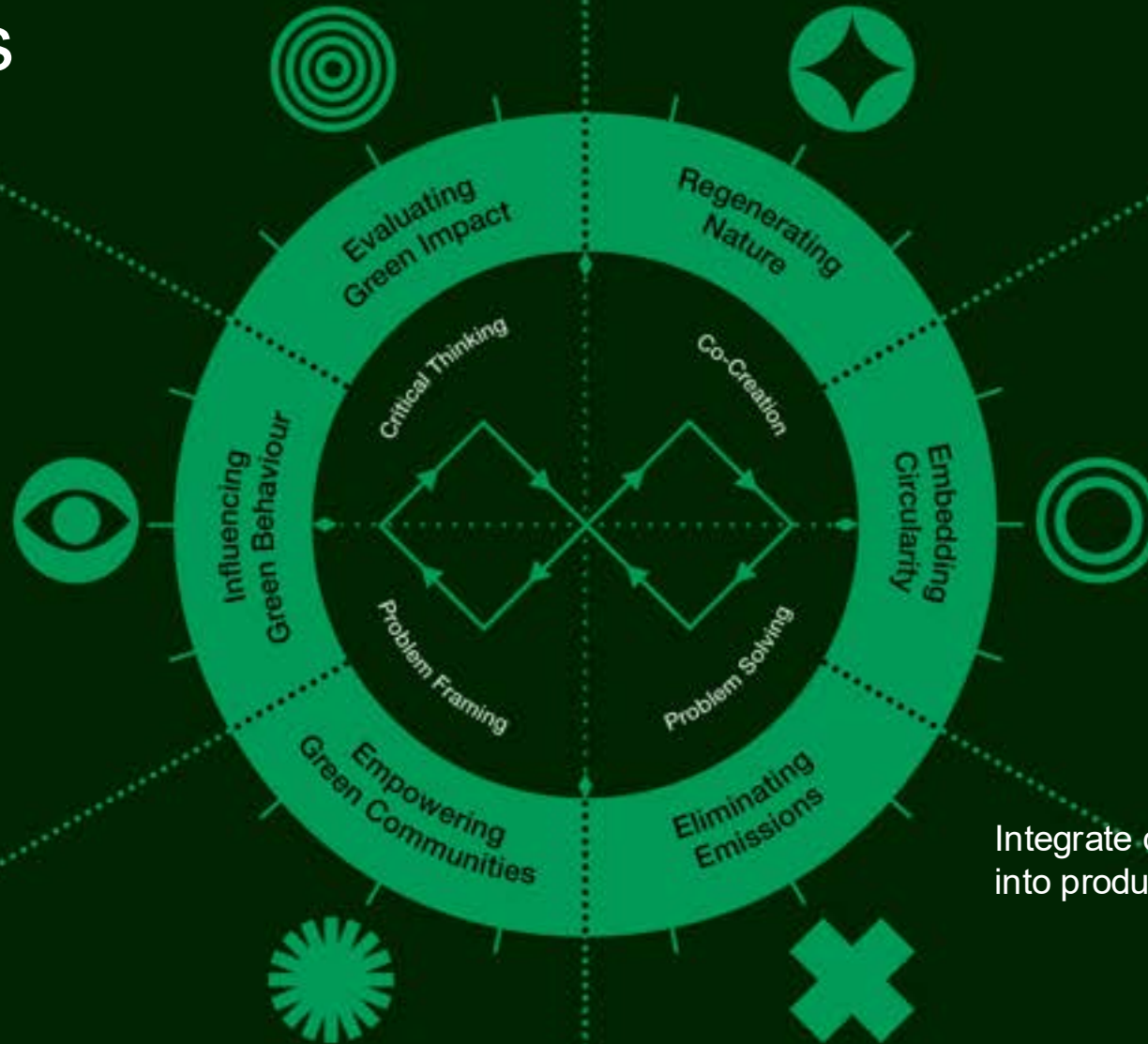


Green skills for businesses



Redesign supply chains
and material use

Green skills for businesses



Redesign supply chains
and material use

Integrate decarbonisation strategies
into product and service development

Design Academy: Building Skills for Planet

Helping organisations embed design for people & planet

Stronger economies, greener futures by:

- Meeting net zero & ESG goals
- Improving services & collaboration
- Building circular, low-carbon models
- Upskilling future-ready talent
- Gaining competitive advantage



Building Skills for Planet Pathways



1. Awareness

Short learning modules
→ build understanding
of green design mindset

2. Development

Foundational CPD - Practical
upskilling in *Green Design
Skills* (circularity, emissions,
behaviour)

3. Integration

Organisational capability
building & policies -
Embedding Design for Planet
into policies, strategies, and
workflows

4. Leadership

Enabling design leaders &
cross-sector coalitions -
Driving culture change, sharing
practice, shaping standards

APPENDIX 2: QUICK TOOLS

Green Design Skills Self-Assessment Template

Print me and
colour me in!

1. AWARENESS

I understand the theory behind this theme and the steps I need to take to apply the skills within it

2. DEVELOPMENT

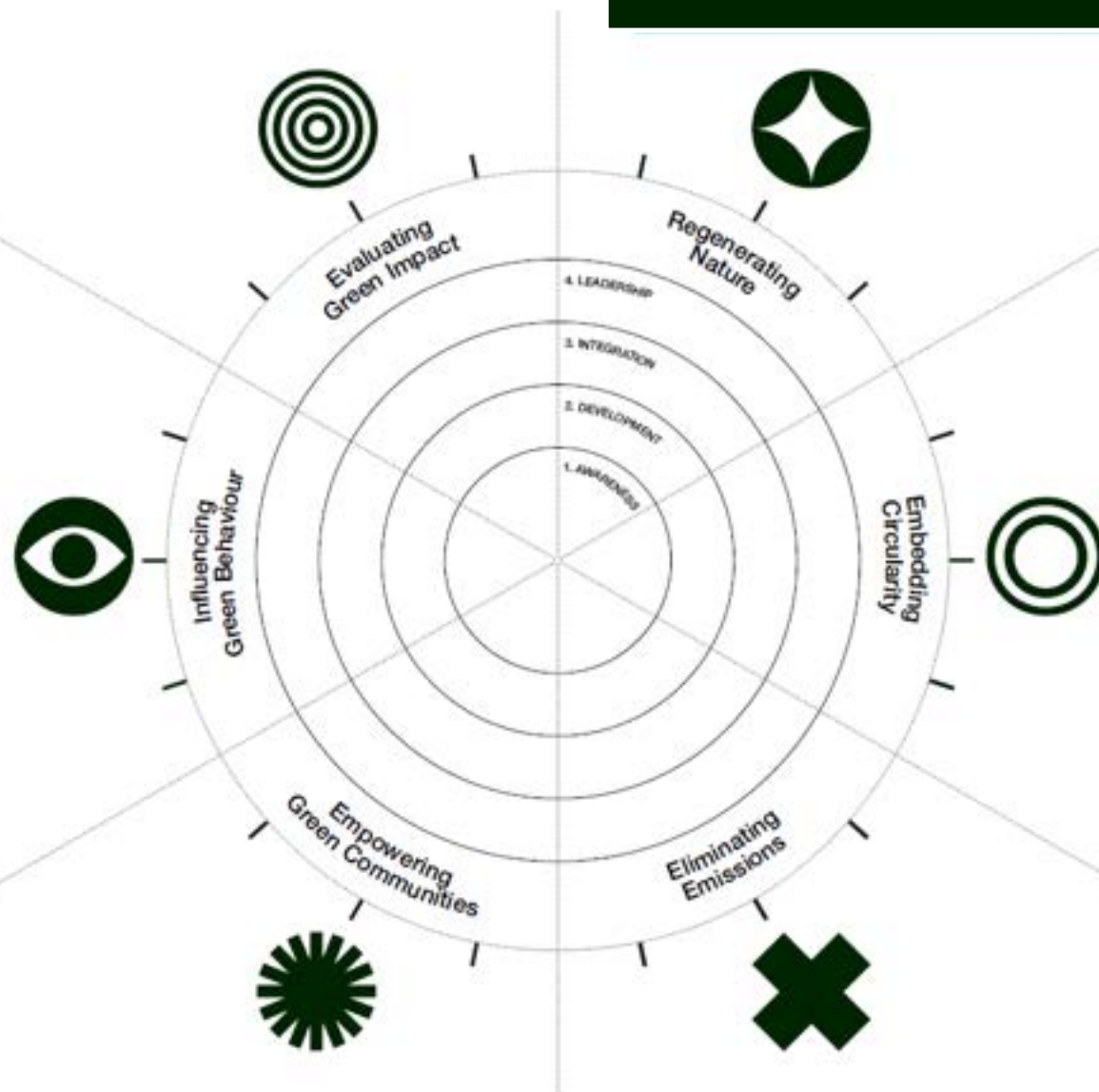
I have experimented with applying one or more of the skills in this area into my own practice, and have engaged with learning materials, i.e. short courses and practical toolkits

3. INTEGRATION

I have deepened my skills in this area through applying the skill in more complex settings or situations, and have done more formal training, i.e. longer courses or certification

4. LEADERSHIP

I have utilised these skills to lead innovation in green design, and teach others to apply these skills



Join our Skills for Planet mission and access the Blueprint here:



Thank you



NHS Supply Chain

Heidi Barnard

Head of Sustainability



We are NHS Supply Chain

Our role is to source, deliver and supply healthcare products, services and food for NHS trusts and healthcare organisations across England and Wales.

By working in collaboration with the healthcare system and suppliers, we help the NHS to put patients first.

We provide cost-efficient, resilient, clinically assured products that are responsive to frontline needs.



Scale of Our Operation

Through our scale and reach, NHS Supply Chain delivers value at a national level on behalf of the whole healthcare system. From invoice consolidation to demand planning, and the development of sustainable supply chains, saving system partners time and resource.



8 million

orders per year



600,000

products



142,000

order points



18,000

locations



30 million

lines of picked goods



seven

distribution centres
nationally

The Role We Play

We are part of the NHS and deliver a **resilient** supply chain of **clinically assured** goods and services to **health and care providers**.



Our Added Value

Consolidate Purchasing, Deliveries and Invoices

Aggregate NHS spend for a range of medical devices and clinical consumables. Provide consolidated deliveries, picked to requisition point, to agreed delivery times.

Clinical and Quality Assured

Provide clinical and quality assurance across all our frameworks.

Targeted Resilience

Provide resilience for a core list of products (stockholding, alternatives, supply chain mapping).

Safety

Work with regulators and suppliers to ensure product safety issues are dealt with swiftly.

Sustainability Strategy

Deliver sustainability solutions and social value across our global supply chain.

Innovation

Collaborate with suppliers and trusts to introduce MedTech mandated and novel innovations that deliver value-based benefits.

What Green Skills means to us

Green Skills - For everyone

Embed sustainability into daily tasks

Examples: choosing low-impact suppliers, reducing waste

Like financial literacy—everyone needs it

Green Careers - For specialists

Lead sustainability strategy and innovation

Examples: carbon analysts, energy managers

Like being an accountant—some specialise

NHS Supply Chain Commitment

- Embedding green skills across all roles
- Supporting future talent with sustainability training
- Recognising that climate action is everyone's responsibility

“We don’t all need to be sustainability experts—just like we don’t all need to be accountants.

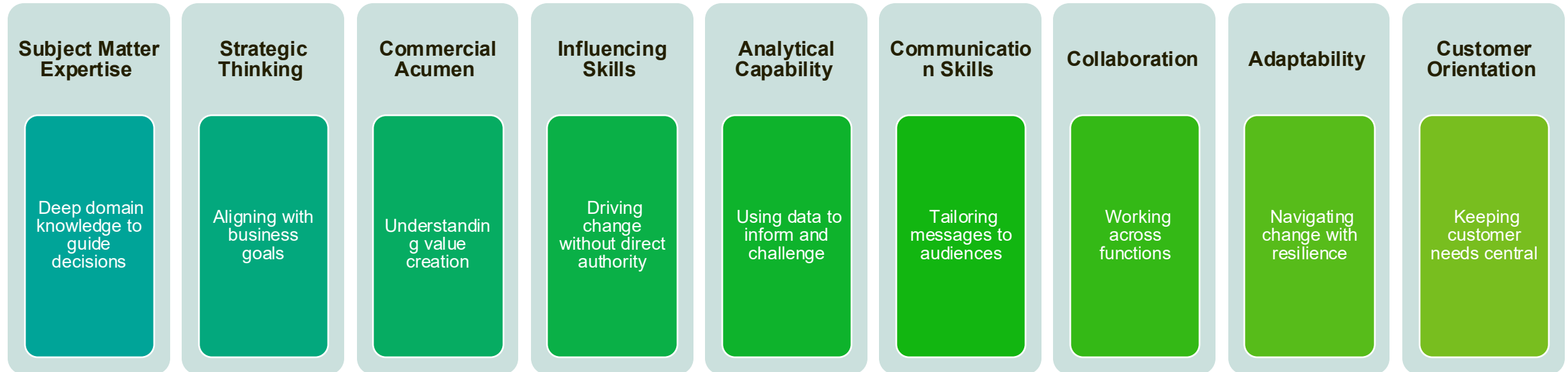
But we all need to understand how our actions affect the climate, just like we all need to manage our own money.”

The Context & Opportunity



Empowering Change Through Strategic Partnership

Sustainability Team – Partnering Model



This model ensures sustainability is everyone's business, supported by expert partners who enable action at every level.

What we did

Deloitte

A blueprint

for green workforce transformation

TOOLKIT



ITEMA

Maturity Assessment

- Understand where the organisation is -and track Progress

Mapping Job Families

- What kinds of roles do we have in common

Training Needs Analysis

- Which roles need which training

Other Institutes

- Recognising career pathways and cross overs

Theme Identification

- As well as levelling to work out how to breakdown the requirements

Curriculum Options

- Mandatory vs Voluntary
- Foundation to Advanced

A large, complex table with many columns and rows, likely representing a curriculum or training requirements matrix. The table is organized into several sections, with columns for different themes or topics and rows for specific training modules or requirements. The table is color-coded with various shades of green, blue, and orange, and includes a detailed header section at the top.

Curriculum Overview



Why Do We Need To Act Now?

The NHS was founded to provide high-quality care for all, now, and for future generations.

Understanding that climate change and human health are inextricably linked, in October 2019, it became the first in the world to commit to delivering a net zero national health system.

As the largest supply chain partner for the NHS, we have a big role to play in helping to achieve this ambitious 2045 target.

1 Sustainability Skills and Capability Guide

Why a sustainability curriculum?

An upskilled workforce will be needed to drive and implement the interventions required to deliver the NHS ambitions. They will need to be supported to learn, innovate, and embed sustainable development into everyday actions in the health service. So that everyone understands that they have a role, and the role they have to play. Meeting the growing demand for skills will require partnerships, which need to be supported.

Principles

This prospectus sets the curriculum and learning opportunities available to NHS Supply Chain colleagues. It directly aligns with NHS England and takes elements of the NHS Greening policy, building them into the specific areas in which we operate.

NHS Supply Chain

Core	Core – Mandatory Onboarding training needed roles
Foundation	Foundation – Job Specific training
Intermediate	Intermediate – Ability to provide guidance, instruction, and advice on the activity to others
Advanced	Advanced – widely recognised as an authority, both internally and externally
Specialist	Specialist – Aligned to specific Functional areas, supported by functional Institute or body

Learning Pathways

A learning pathway is a way of learning that lets you choose your own activities and pace. You can follow different routes to build your knowledge about the topic.

We have made the pathway and the elements as flexible as possible, with different modules, levels and tools for learning. You can personalise your route to suit your needs.

Listeners have different backgrounds, and skills, so they also have different ways of using and connecting the messages in interactive conversations.

The purpose of the pathway is to help you and your managers plan for the next year, as part of the business planning cycle. It also helps to plan the resources for the learning teams and the sustainability team.

1 Sustainability Skills and Capability Guide

Learning Pathways

We have identified 10 thematic areas for learning, based on the NHS resources and the tools from the Institute report "A Blueprint for green workforce transformation". These thematic areas reflect the different learning needs across the organisation.

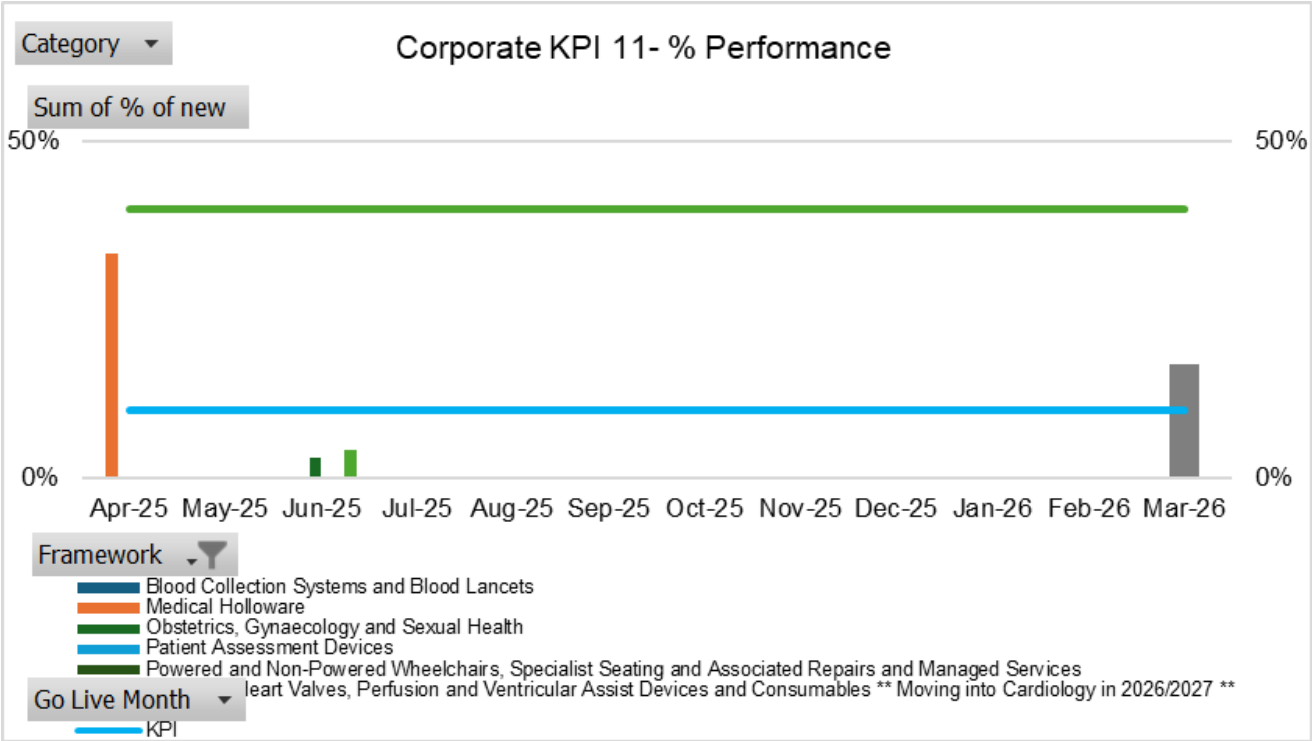
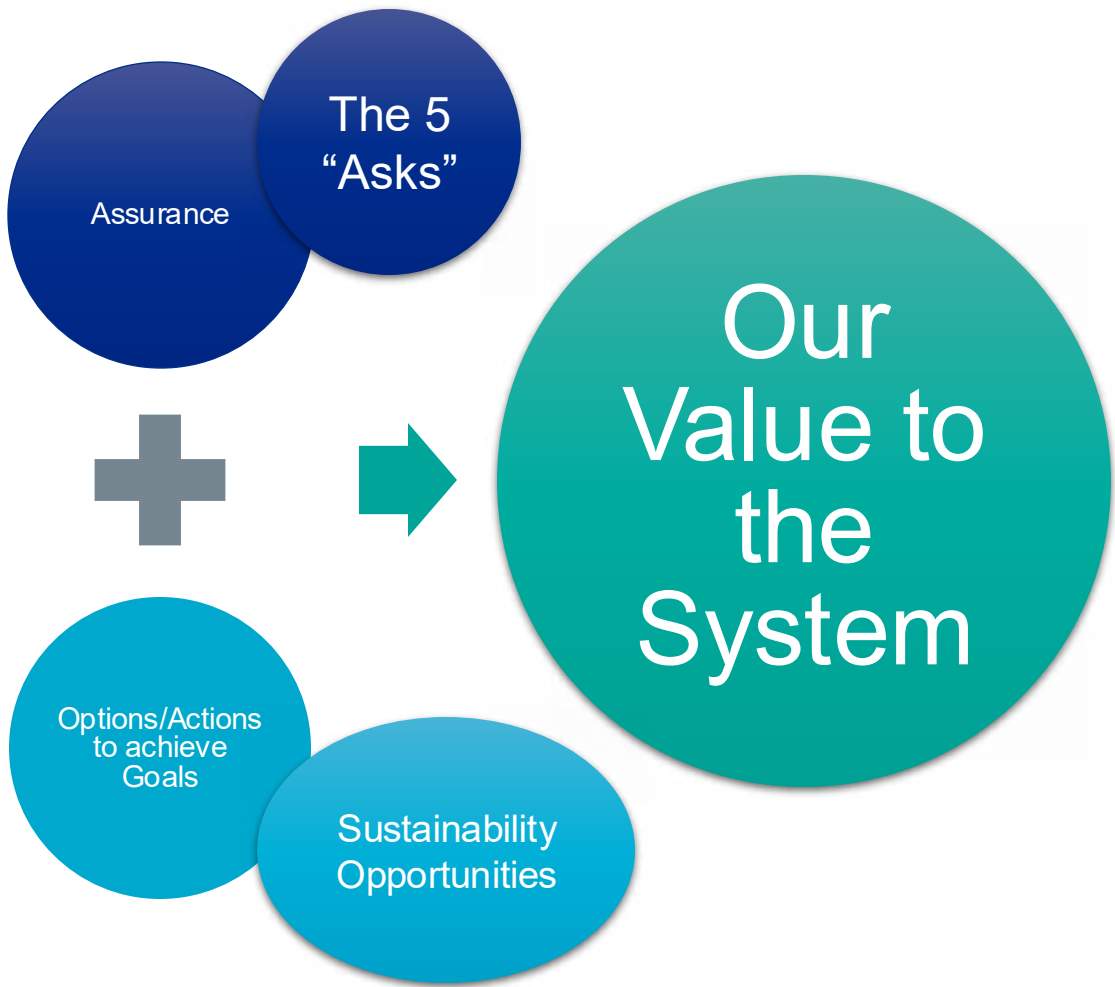
Thematic Area
1. Organisational Structure, Policy and Plan
2. What is Sustainability?
3. What is Environmental Sustainability: Nature and natural resources, Pollution and waste, Social Sustainability
4. What is the NHS - NHS Supply Chain Impact?
5. Climate Change, Net Zero, and Decarbonisation
6. Sustainable Procurement
7. Supply of Products
8. My Part in delivering a Greener NHS
9. Green, Safe and Able of the Future
10. Regulation, Government Policy, NHS, NHS Organisations
11. Green Working, Working and Community
12. Action Standards & Modern Slavery

Core Foundation Intermediate Advanced Specialist

Onboarding at NHS Supply Chain Job specific training Ability to provide guidance, instruction and advice on the activity to others Widely recognised as an authority both internally and externally For those wanting to develop a career within the Sustainability Specialty

1 Sustainability Skills and Capability Guide

Impact so Far





NESTA

Liz Gallagher

Principal Data Scientist



About Nesta

We are the UK's innovation agency for social good. We design, test and scale new solutions to society's biggest problems, changing millions of lives for the better.

For over 20 years, we have worked to support, encourage and inspire innovation that benefits society, a purpose that is more relevant now than ever.



[Read more about our history](#)

A man and a woman are working in a garden. The man, on the left, is wearing a blue cap and a plaid shirt, and is looking down at something in his hands. The woman, on the right, is wearing a white cap and an orange sweater, and is looking towards the man. They are surrounded by green plants and a wooden trellis structure in the background.

A sustainable future

Our mission is to accelerate the decarbonisation of household activities in the UK and improve levels of productivity.

At Nesta, we're focusing on one part of the net-zero challenge: rapidly reducing emissions from the UK's homes, which currently account for around 22 percent of total emissions.

We do this by designing, testing and scaling solutions that drive change: making homes more energy efficient, increasing uptake of low carbon heating, and reducing household energy use.

Last year, we developed a way to use job adverts to increase the amount of information available about green jobs...

The problem. A lack of good, bottom-up data on green jobs has led to narrow conversation about the workforce transition to Net Zero, focussing on a small number of green jobs.

Our approach. An open source tool that displays information about the greenness of a job, based on multiple dimensions.

What makes a job green or not?



Percentage of skills
that are green

The proportion of **skills** being asked for in the job advert that are green.



Time on green tasks

The average time spent on green tasks for this **occupation**.





Industry greenness

The average GHG emissions per unit of economic output for this **industry**.

The Green Jobs Explorer

[Beta](#) This is a new service - [provide feedback](#) to help us improve it.


 **Green Jobs Explorer**

[Explore](#) [Compare](#) [About](#) 

Learn about green jobs and skills

This tool harnesses job advert data to offer new insights into the green labour market. You can explore and compare the environmental aspects of different occupations to build a more nuanced picture of green jobs in the UK.

[!\[\]\(1d970b3e7cbfdacb236da6349ad0cf38_img.jpg\) Explore green jobs](#)[!\[\]\(d19d18e4523bf4c3b871235e105e23a5_img.jpg\) Compare green jobs](#)



Environmental consultants

Environmental consultants give advice on environmental matters. They work on areas such as the effects of new developments on the environment, the control of pollution and noise, the effects of agriculture or recreation on plants and wildlife, the effect of climate change and waste management and recycling.

% of skills that are green 🟢 🟢 🟢

This is based on the average proportion of skills that are green in job adverts for this occupation. "Green" skills are defined as those found in the [ESCO Green Skill list](#).

This rating is based on average per unit GHG emissions for industries job adverts for this

Based on analysing **1474** job ads this job specialises in green tasks. A job advert for this occupation mentions green skills for, of which **21.3%** are green skills. The pay is **£30,112 - £40,000**.

At the point of upload, job adverts are tagged with locations are standardised to ITL 2 (International 1 region, we divide the proportion of job adverts for

For each job advert we extract the green skills it asks for. We display the 5 most commonly asked for green skills for this occupation.

Found in 509 job ads (10.8%)

Found in 393 job ads (8.3%)

Found in 343 job ads (7.3%)

Found in 247 job ads (5.2%)

Found in 235 job ads (5.0%)

ExploreCompareAbout

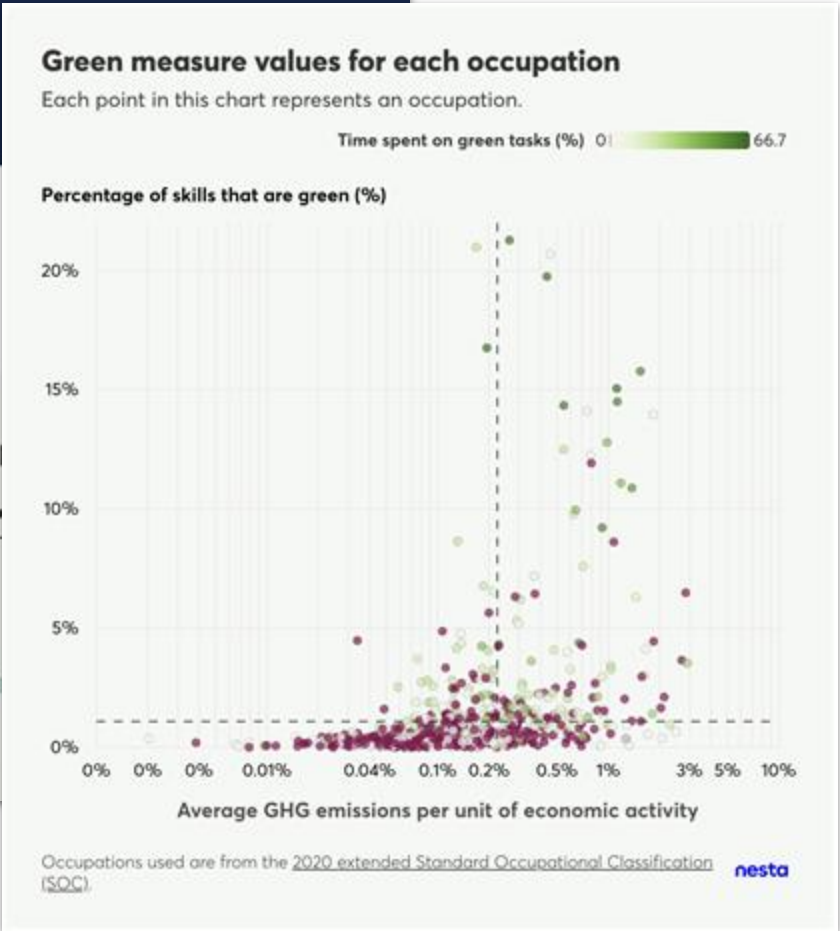
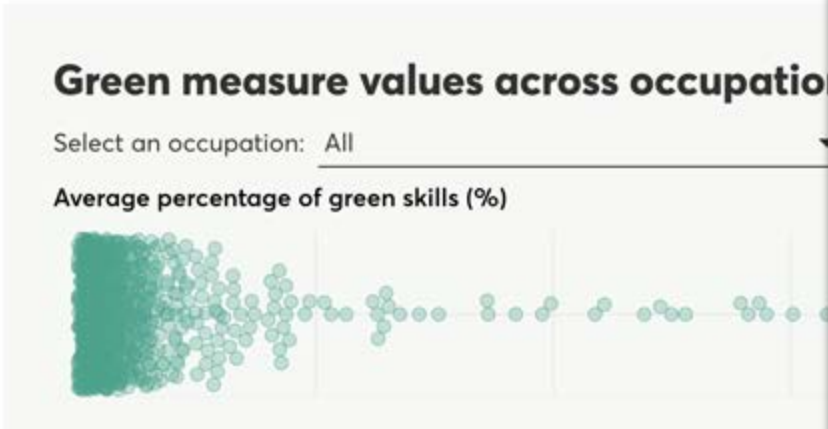
Compare

See how green jobs compare.

Measures at a glance

Most occupations engage minimally in green tasks, typically between 0%–1% of overall time spent within the role.

Occupations with a higher average proportion of green skills, exceeding the typical range of 0%–3%, are uncommon; for example, even adverts for environmental consultants ask for at most 21% green skills.



Some example use cases for our tool...



I'd like to be give my students some examples of green occupations, and be able to explain *why* they are green.



I'd like to be able to check how green a particular occupation is.

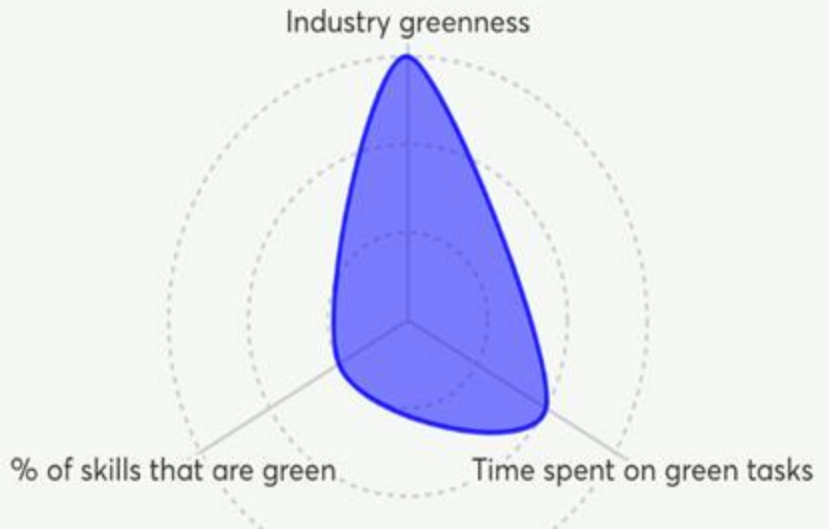


I'd like to be able to tell my students what skills they need for a particular job.

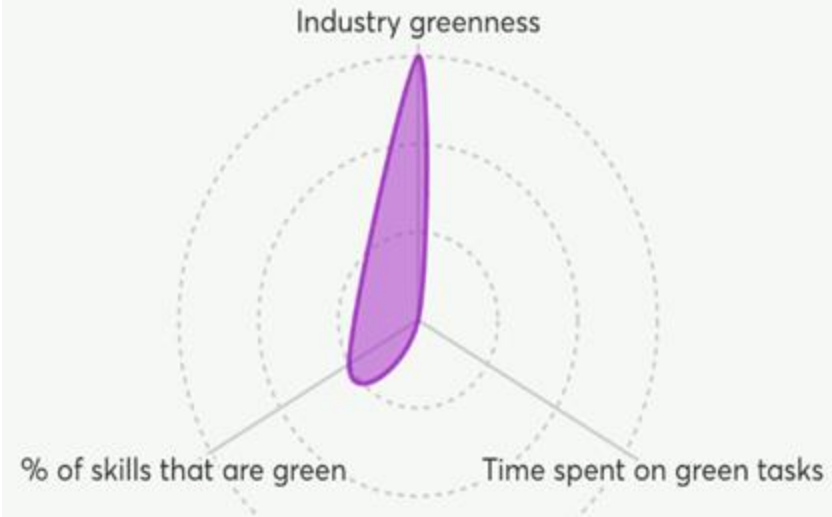
Key findings

There's no such thing as a job that is 'green' or 'not green'...

Business change managers



Primary education teaching



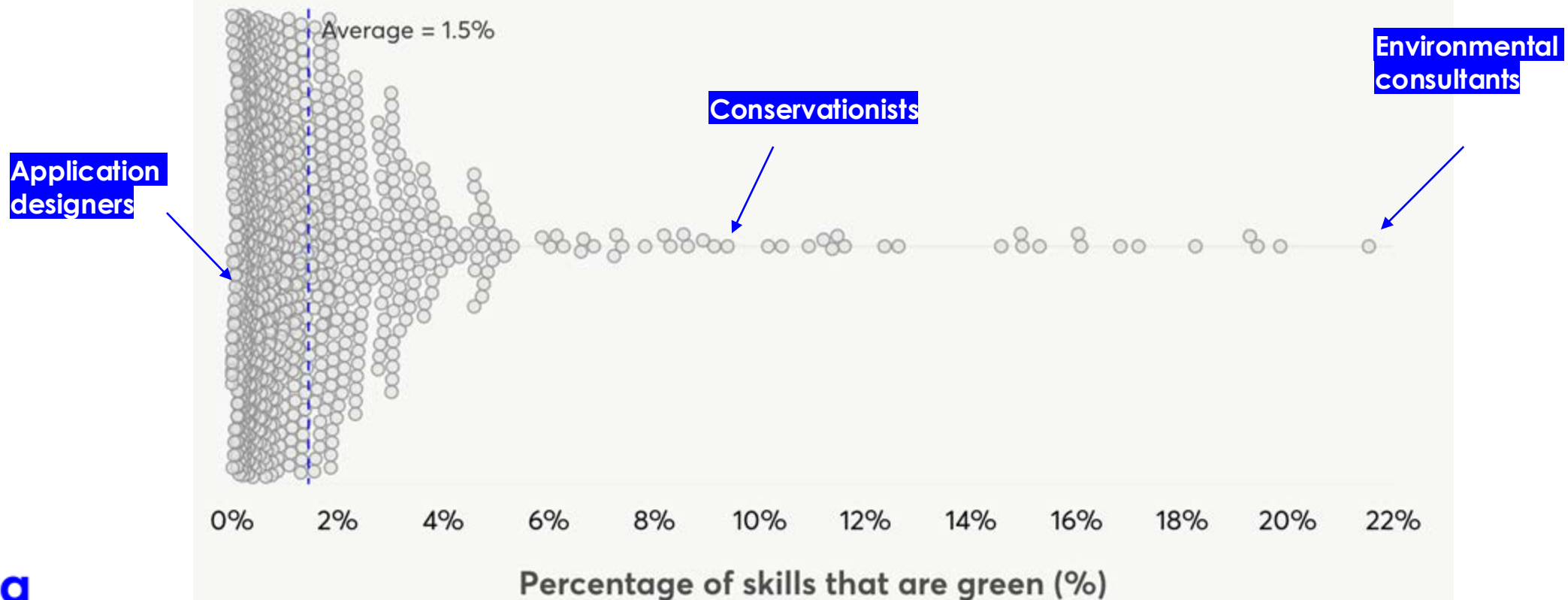
Energy advisers and assessors



Green skills are still a small part of most jobs...

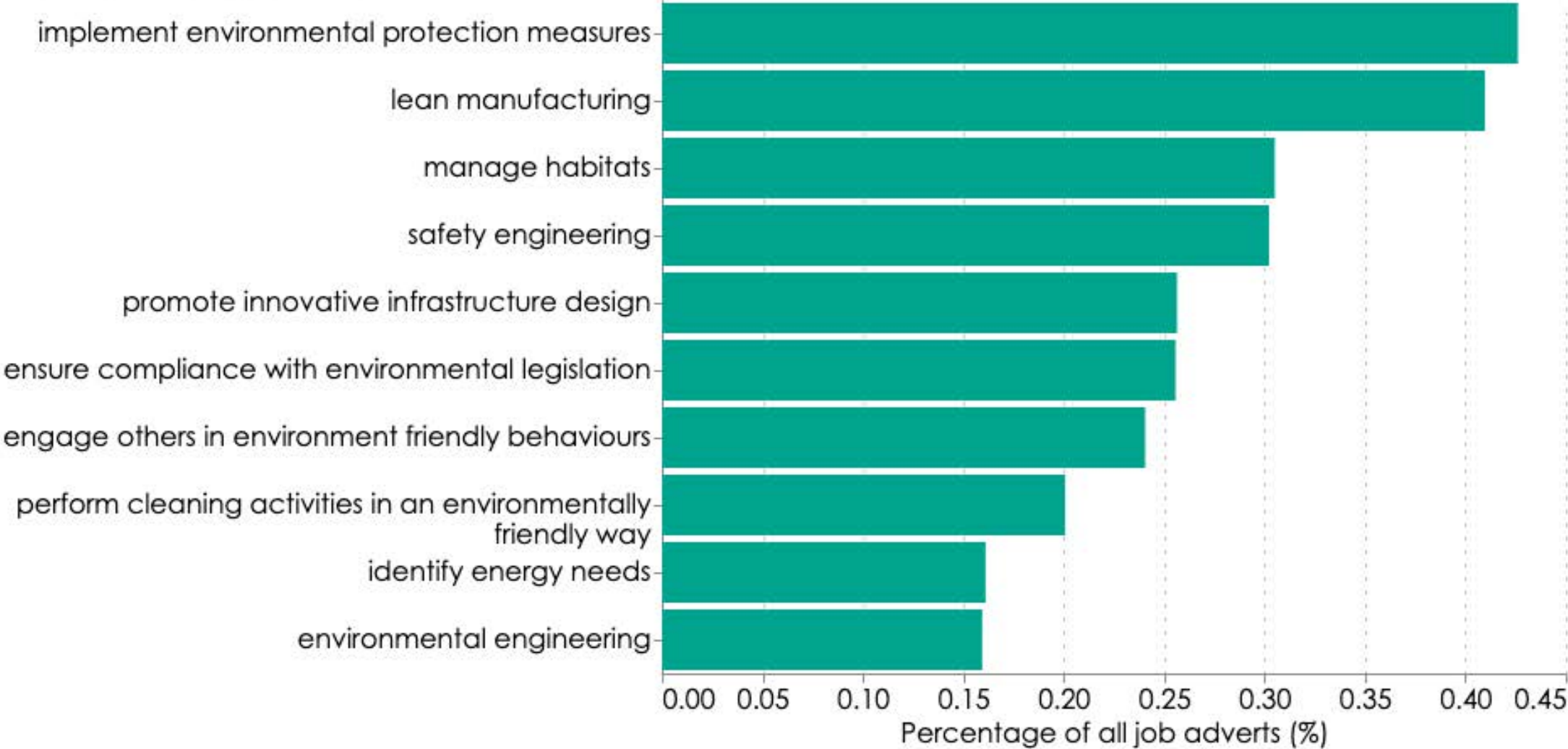
The percentage of skills that are green in job adverts rarely exceeds 3%; even environmental consultant roles require a maximum of 22% green skills

Each dot represents an occupation, hover to see the percentage of skills that are green (%)



Certain green skills are asked for more than others

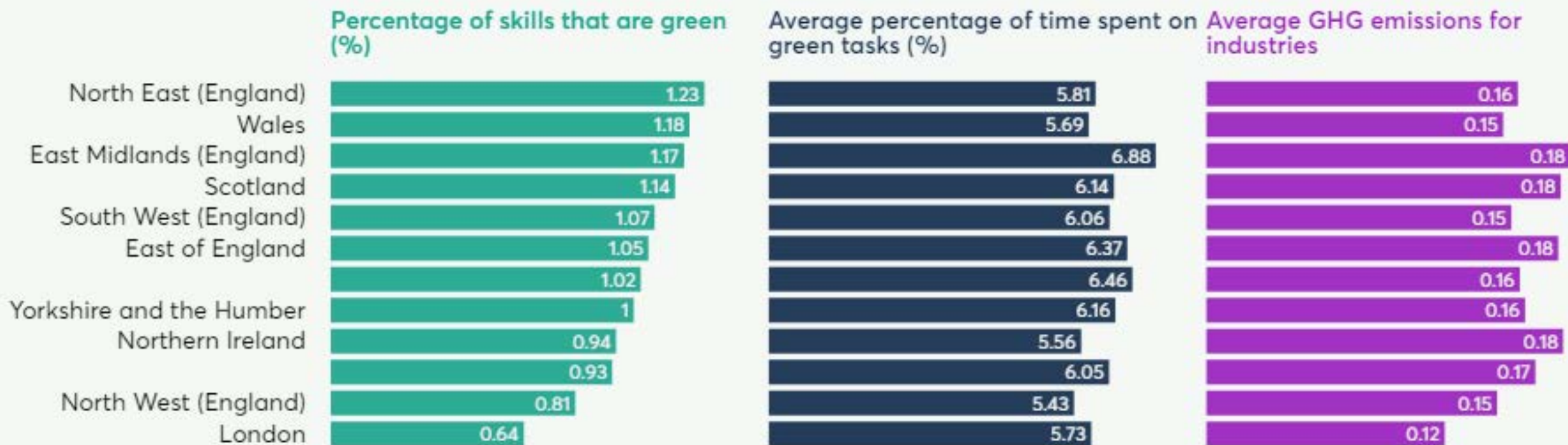
Most common green skills



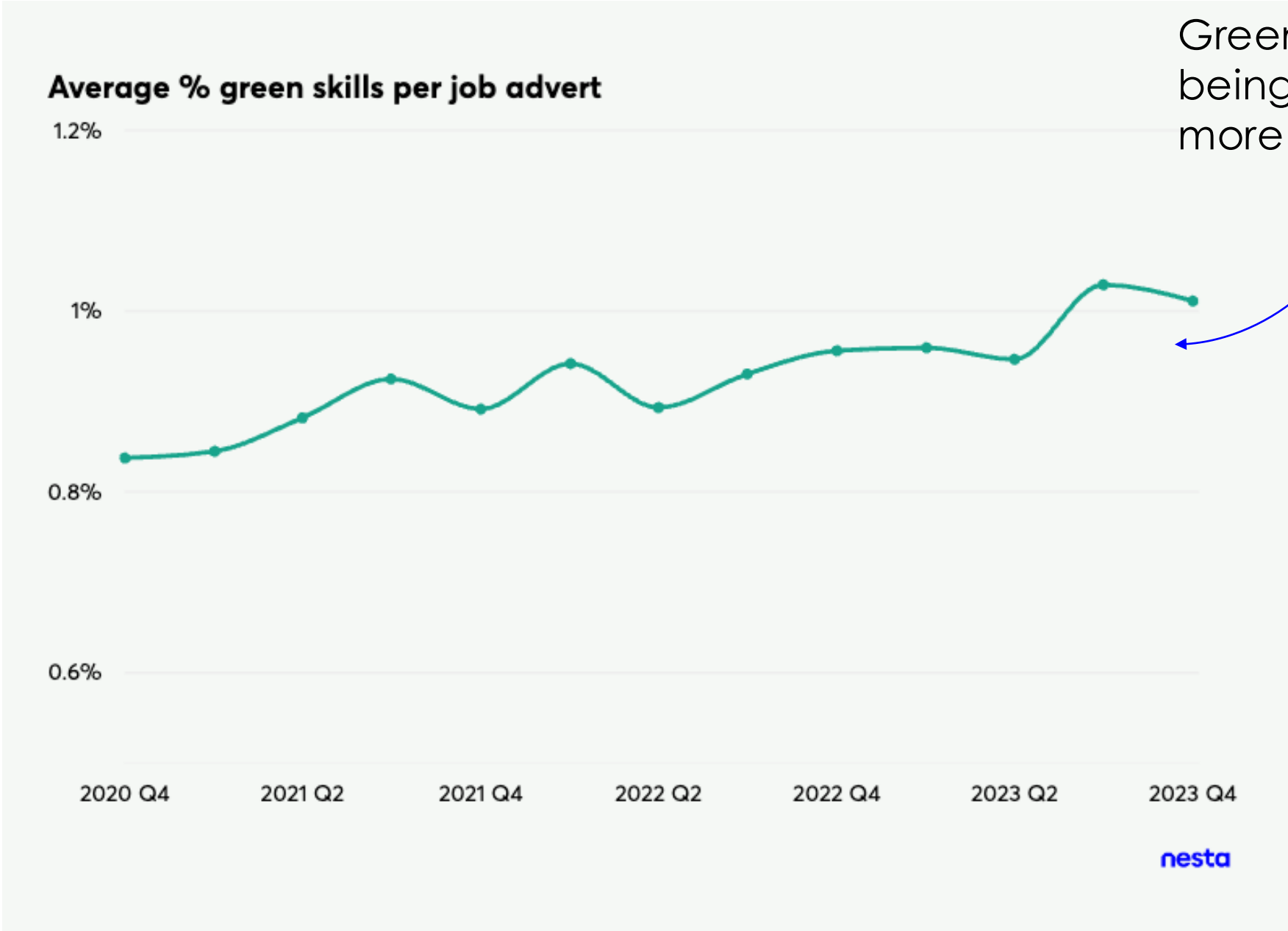
Measuring 'greenness' offers a new perspective on the regional green jobs story...

Measuring and mapping 'greenness' reveals a regional green jobs story, driven more by large manufacturing and industrial towns than by major cities.

Greenness measures by region of the UK, in order of green skills measures

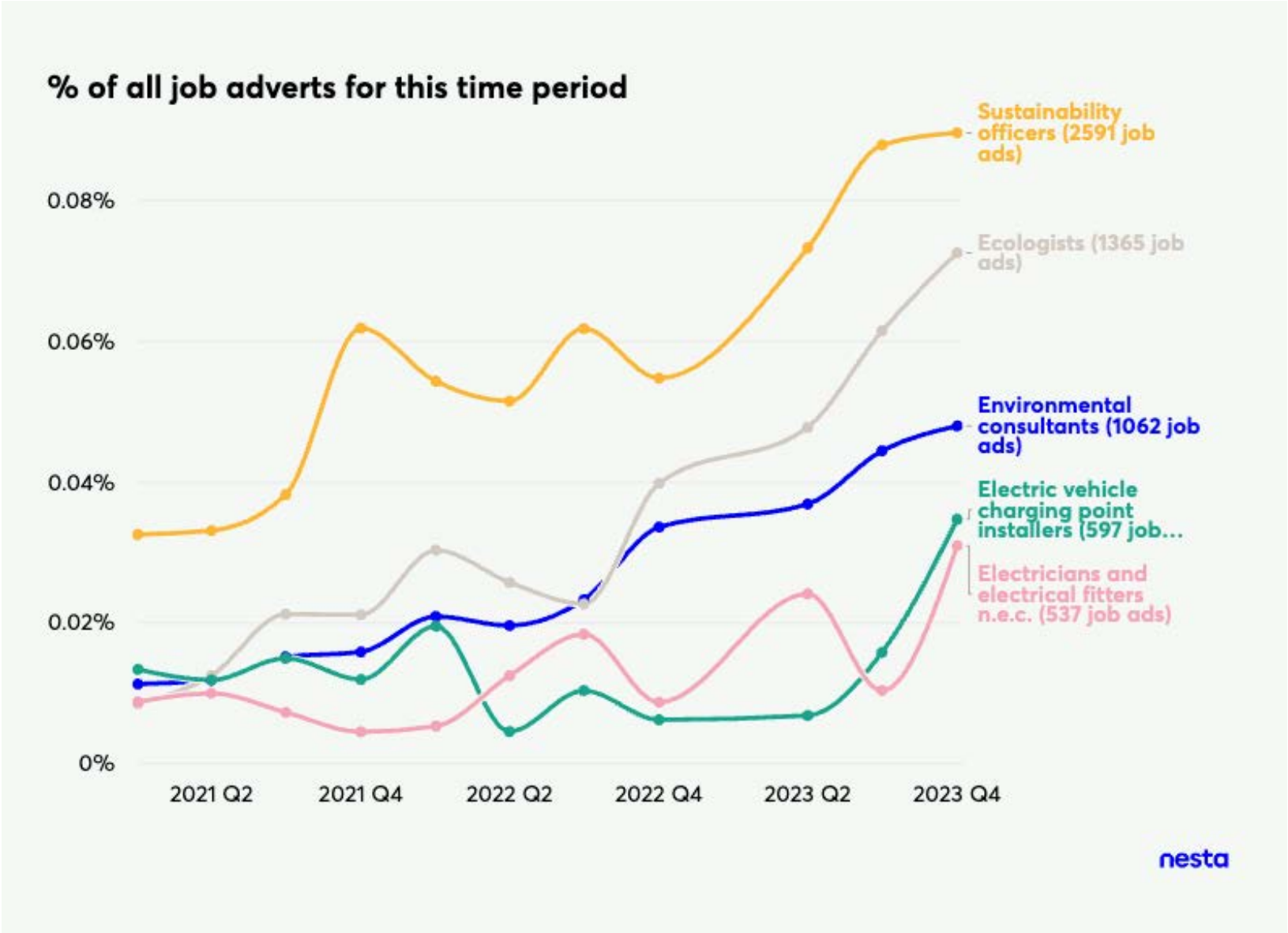


Trends over time



Green skills are being asked for more over time.

Trends over time



What's next?

Unfortunately we are shutting down this package of work as the priorities for Nesta's work change.

The website may still be hosted by elsewhere (TBA).

However, the data that powers the Green Jobs Explorer will still be available, and our code to create it is open source.

Please get in touch if you have any questions!

elizabeth.gallagher@nesta.org.uk [Before October]

genna.barnett@nesta.org.uk [After October]

Thank you for listening!

Further reading:

- [How we extracted skills from job adverts and links to the tools created](#)
- [How we assigned job adverts to different industries](#)
- [How we assigned job adverts to different occupations](#)
- [How we extracted green skills from job adverts](#)
- [The Green Jobs Explorer tool](#)

nesta



UK Research
and Innovation



Q&A



Innovate
UK

Business
Connect

Find out more

<https://iuk-business-connect.org.uk/knowledge-centre/events/>



Innovate
UK

Business
Connect

Links posted in the chat

<https://www.greencareershub.com/>

<https://www.isepglobal.org/>

<https://www.deloitte.com/uk/en/services/consulting/research/green-skills-for-green-economy.html>

<https://post.parliament.uk/green-education-training-and-employment/>

<https://www.designcouncil.org.uk/our-work/skills-for-planet/>

<https://greenjobexplorer.org/>

[A green skills framework for climate action, gender empowerment, and climate justice](#)



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