Towards a sustainable skills academy

Project update 29/06/22
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<tr>
<th>Timing</th>
<th>Topic</th>
<th>Facilitation and speakers</th>
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<tr>
<td>13:00 - 13:15</td>
<td>Welcome and introductions</td>
<td>AR, SL</td>
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<tr>
<td>13:15 - 14:15</td>
<td>Presenting our findings and experience to date</td>
<td>LJ, CB, CQ with whole group questions and contributions</td>
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<tr>
<td>14:15-14:30</td>
<td>BREAK</td>
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<tr>
<td>14:30-14:50</td>
<td>What does regional collaboration for sustainability skills success look like in 3 years' time? What are the markers of success?</td>
<td>All - whiteboard exercise</td>
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<td>14:50-15:30</td>
<td>How to increase engagement:</td>
<td>3 x breakout groups each led by facilitator</td>
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<td></td>
<td>• Good/effective practice and relatable language</td>
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<td>• Empathising with employers</td>
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<td>• Eureka moments – the journey to engagement</td>
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<td>15:30 - 15:45</td>
<td>Feedback from engagement session</td>
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<td>15:45-16:00</td>
<td>Wrap up and reflection</td>
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<td>16:00</td>
<td>Close</td>
<td>AR, SL</td>
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Where did we start? The problem:

It is difficult to recruit people with the right sustainability skills in the area.
Project aim

To understand the root causes of why recruitment or development of sustainability skills and specific roles is currently a challenge and equip regional stakeholders to improve relevant skills development and recruitment success.
The current landscape: reviewing policy and research
All jobs can be, and will be, green jobs

“Green jobs will not be niche. We anticipate that sustainability and climate change will touch every career.

Department for Education, 2022

Four shifts in the market for green jobs and green skills

Shift 1
Expansion of skills and scope in existing specialist sustainability roles
E.g. Recycling operative, sustainability manager

Shift 2
Increased need for green skills in non-specialist roles
E.g. Marketing professional, product designer

Shift 3
Transition of workforces from unsustainable sectors to new roles
E.g. Oil rig marine engineer, vehicle assembly technician

Shift 4
Demand for green skills in new green sectors and organisations
E.g. Hydrogen plant operative, carbon capture and storage engineer

TOWARDS A SUSTAINABLE SKILLS ACADEMY FOR LEICESTER, LEICESTERSHIRE AND RUTLAND UNIVERSITIES IN LEICESTER, EDUCATION AND TRAINING FOUNDATION AND CHANGE AGENTS UK
https://www.iema.net/all-jobs-greener
An awareness problem?

- 56% of the public haven’t heard of green jobs
- 62% don’t understand what ‘green skills’ means
- 65% don’t have access to relevant training

https://www.iema.net/all-jobs-greener
Challenges and demand in the job market

1.3m job vacancies in the UK (ONS)
Different types of green skills

**Skills for Green Jobs**
Skills aimed at fulfilling the requirements of green jobs and supporting the transition to a low-carbon green economy

**SPECIFIC CAPACITIES**
- Business skills
- Data analysis
- Engineering
- Entrepreneurship
- Environmental and ecosystem management
- Environmental knowledge and awareness
- Finance skills
- ICT skills
- Innovation skills
- Marketing skills
- Project management
- Research skills
- Sales skills
- Science skills
- Technological skills
- (Gender empowerment skills)

**Green Life Skills**
Cross-cutting skills that serve both technical, instrumental, and adaptive, transformative ends

**GENERIC CAPACITIES**
- Adaptability
- Collaboration
- Collaborative thinking
- Communication
- Coping with emotions
- Coping with uncertainty
- Creativity
- Critical thinking and reasoning
- Decision making
- Empathy
- Flexibility
- Growth mindset
- Higher order thinking skills
- Interpersonal competence
- Leadership
- Negotiation
- Networking
- Open-mindedness
- Participatory skills
- Problem-solving
- Resilience
- Strategic thinking
- Teamwork

**Skills for a Green Transformation**
Adaptive skills aimed at transforming unjust social and economic structures

**TRANSFORMATIVE CAPACITIES**
- Ability to analyze unequal systems of power
- Coalition building
- Collective action
- Disruptive vs. normative thinking
- Environmental stewardship
- Future and anticipatory thinking
- Integrative thinking
- Interdisciplinary and multidisciplinary thinking
- Interrelational thinking
- Political agency, activism
- Reflexivity
- Respecting diverse viewpoints
- Solidarity
- Systems Thinking
- Trans-cultural, trans-spatial, trans-temporal mindsets
- Valuing traditional and indigenous knowledge
- Working within complexity

Read more at [https://www.brookings.edu/research/a-new-green-learning-agenda-approaches-to-quality-education-for-climate-action/](https://www.brookings.edu/research/a-new-green-learning-agenda-approaches-to-quality-education-for-climate-action/)
Experiences and perceptions of ESD

74% of teaching staff feel that they haven’t received adequate training to embed sustainability in their work nor to educate learners about sustainability or climate change.

The majority of respondents (85%) agree that the FE and Training sector has a valuable role to play in the achievement of sustainability goals.

68% feel that the current UK post-16 education system does not adequately educate learners on sustainability issues.

Nearly all respondents (94%) believe that all UK learners should be taught about sustainability issues – this is often referred to as an ESD curriculum entitlement.

43% of people are familiar with the sustainable development goals (SDGs).

61% of respondents (who teach a diverse range of subject specialisms) report that they already actively incorporate sustainability themes into their teaching/work to some extent.

Only 35% of respondents agree that the curriculum requirements support delivery of sustainability issues.

24% of respondents didn’t know what their organisational approach to sustainability is.

30% of respondents feel sustainability is an issue for all parts of their organisation.
Within Leicestershire

**Green Jobs Barometer**

**42 /100**

For the purposes of aggregation of pillars across the UK, we have created an overall index. 0 denotes the worst performing region across every individual Pillar, and 100 the best.

1: Green job creation
The number of green job advertisements, expressed as a proportion of total job advertisements.

1.2% max: 1.7%

Average across all regions 1.2%. Higher numbers are better.

2: Wider benefits from green jobs
For every green job created there are an additional x jobs created elsewhere in the economy.

2.1x max: 3x

Average across all regions 2.4x. Higher numbers are better.

3: Sunset jobs to disappear
Percentage of the expected jobs lost by 2030 to the green transition concentrated in the selected region.

8.1% max: 15.6%

Average across all regions 8.3%. Smaller numbers are better.

4: Carbon intensity of employment
Carbon dioxide emissions per employee.

10.9 tonnes of CO₂ per employee

Average across all regions 10.1 tonnes of CO₂ per employee. Smaller numbers are better.

5: Green workplaces
Employee sentiment about the environmental friendliness of their jobs and workplaces.

6.6 /10

Average across all regions 6.5. Higher numbers are better.

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https://www.pwc.co.uk/who-we-are/our-purpose/building-trust-in-the-climate-transition/supporting-a-fair-transition/green-jobs-barometer.html
A changing education landscape

- Bootcamps
- HE short courses
- Higher technical qualifications (HTQs)
- Apprenticeships
- Local skills improvement plans (LSIPs)
- T Levels
- Local skills improvement plans (LSIPs)
Learner demand and interest is there…
“How should sustainability skills be developed and included in courses?”

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https://www.sos-uk.org/research/sustainability-skills-survey
Learner demand and interest is there…
“What factors are most important when considering what jobs to apply for?”

TOWARDS A SUSTAINABLE SKILLS ACADEMY FOR LEICESTER, LEICESTERSHIRE AND RUTLAND UNIVERSITIES IN LEICESTER, EDUCATION AND TRAINING FOUNDATION AND CHANGE AGENTS UK
https://www.sos-uk.org/research/sustainability-skills-survey
Research themes

How can tertiary education providers and employers strategically enhance collaboration to address sustainability skills gaps in the Leicester region?

We wanted to identify:
- perceived needs and motivations for sustainability skills and how these match
- current provision arrangements and existing collaborative arrangements
- key local economic opportunities and challenges in relation to Net Zero and sustainable business practices and skills gaps to address
- emerging policy contexts
- recommended actions for stakeholders to enhance provision and collaboration relating to sustainable skills
Project components and timeline

- Interviews and survey
  - Local employers
  - Educators
  - Students
  - Other relevant stakeholders

- Desk research
  - Policy and research context

- Student training
  - Training HE students covering sustainability, skills for the future and green careers

- Research synthesis
  - A summary of findings to date to inform action plan

- Stakeholder meeting
  - A half day event on 29 June for stakeholders to review research, further develop ideas and create action plan

- Action plan
  - Final document collating commitments and next steps from summit

May 2022

June 2022

July 2022
Stakeholders we’ve engaged with

[Logos of various institutions]
Engaging with research participants

Initial plan
Conduct series of research interviews with local employers, educators and students to build up a picture of the sustainability skills gap through these 3 lenses

Approach
Engagement through various forums including the LEP, ERG and other local networks. Adapted approach to enable survey responses to improve accessibility to research participation.

Challenges
• Limited availability/willingness/ability to participate, particularly among local employers
• Difficulty of reaching beyond large/already engaged organisations – particularly SMEs (99.6% of local employers)
• Timeframe – would-be contributors unable to participate in the timeframe available and project team diverted on to engagement
Total research participation

Via interview and survey using questionnaire for each demographic:
- 8 employers
- 12 students (of 46 who attended Sustainable Futures education workshops)
- 7 educators
- 2 LEP
"It's difficult to differentiate between 'skills' and 'awareness' or 'behaviour'. Skills would I guess include things like the ability to keep carbon consumption and the production of waste to a minimum."

"These are any skills that help an organisation to achieve their sustainability goals. This ranges from technical skills on developing electric vehicles through to forestry skills and waste management experience. It is a very broad term that lacks a firm definition."

It is the knowledge and understanding sustainability e.g. in water, waste, CO2 savings. It comes in every shape and form. Understanding the multiple processes to become sustainable.

"Skills to understand needs and deliver against them without compromising the objective of the business (or by actively promoting the objective)"
Hard skills

• Everything from developing policy and strategy and projects to front end delivery
• “Specialist skills in”… ecology, forestry, sustainable infrastructure development, embedding sustainability in the ethos of the businesses, engineering, STEM, coding, spatial analysis, sustainable procurement...
• Data analysis
• Carbon literacy including carbon footprints and how to create CO2 reduction

and soft skills for sustainability

• Research
• Communication
• Persuasion and influence
• Relationship and partnership building
• People skills and teamwork
• Training and facilitation
• Problem solving
• Resilience
• Navigating fake news and denial
• Having difficult conversations
• Project management
• Creativity
• Entrepreneurship
• Empathy and patience
• Ability to learn quickly
Which "sustainability skills" do employers find are lacking?

“Suitably experienced ecologists who understand planning system and new legislation in Env Act, and can conduct habitats surveys and interpret aerial photos”

“It's across the piece…Colleagues are struggling to get people from engineers, designers, highways designers, transport planners, waste colleagues are struggling to get people to work on strategy, management as well as getting drivers. It's widespread. There's a general shortage of staff nationally, there's a particular shortage of people within the sustainability sector and the public sector cannot compete with the salaries being offered by the private sector.”

“Knowledge and the ability to implement change”

“I would imagine all of them at the moment as it's not a theme that's become a major part of recruitment”

“People don't understand it. There is a lack of knowledge across the board. The perception from the media, one bad press and people are happy to believe it. We need to get the country to understand the importance of sustainability and what we are doing.”
What collaboration currently exists

We’re involved with other institutes and promoting courses. We’re a member of Constructing Excellence Midlands Forum.

We used to in the past take part in a programme called ‘Graduate Gateways’ with student placements. I think that’s ended now but it was brilliant.

Our tourism manager works with consultants to assist with advising local businesses on development sustainable tourism offers across our region.

Internal collaboration only

You don't usually get industry collaborating with lower levels of education, usually it's the higher levels because they want the cream of the crop - the top end that can go straight into a job. But they've collaborated at lower levels with us to feed those higher level courses because they need that talent pool. They need it from the bottom. So, they're helping us do that right from the bottom - we're paying them but it's what the funding's enabled.

Sustainability virtual internship

Bright green futures initiative

Training from suppliers and get update on their skills.

We talk about this at the Expert Reference Group
Ideas for further collaboration

- Shadowing
- Young people being recognised for their green skills as they are their digital skills
- Peer to peer support for businesses
- Colleges and training providers need access to new equipment
- Help marketing what’s already available
- High profile competitions for students
- Presentations for staff
- Work experience
- Enhanced apprenticeship provision
- Placements for learners
- Careers advice – from a younger age
- Maximise extra curricular opportunities
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Recruitment and retention challenges

- Recruitment is challenging across the board, with labour market shortages across the economy.
- There was a feeling that public sector roles were losing out to the private sector who could afford to pay more (although other factors such as social and environmental responsibility are known to be important to students/graduates when choosing an employer) - but it was felt that this affects both recruitment and retention.
- In our sample group of 12, 5 students/recent graduates were clear on their plan to stay in the region to seek work.
- Students generally had a good grasp of sustainability skills.
- Employers (in the small research sample we had) felt that their job descriptions were generally clear and well-structured. However, employers felt that their job descriptions were generally not "appealing and engaging".
We provided 1-day Sustainable Futures workshops at University of Leicester & DMU attended by 46 students.

These sessions were aimed at helping students understand more about sustainability, skills for the future, their core values and the journey from education into future-focused work.

Feedback from participants of these sessions has been excellent and demonstrates that this intervention has been really impactful in terms of engaging students and empowering them to put sustainability at the heart of their career plans.
Finding out my core values was enlightening. Also learning about systems thinking and sustainability was done in a very engaging way.

I found the range of activities was useful. They got us **actually thinking practically** and interacting with sustainability, not just listening passively.

The exercises are helpful as they **boost my confidence**.

Systems thinking, core values and how these relate to future jobs in sustainability and skills needed for sustainability jobs.

The content covering skills required to make a career in sustainability and approach.

The future Sustainability Working Skills.

Finding out my core values. The skills were awesome.

The collaborative competency and critical thinking activities.

I enjoyed every section especially, how to implement sustainability in my career path.

The insightful information.

Our values activity, and discussion.

Group work.
What could be next?

Run Sustainability Skills Programmes for graduates/young people beginning work in the region to retain/attract talent and help employers bridge training gaps

Reach larger audiences of students – especially those not undertaking sustainability-related programmes of study

School and college engagement in the region – young people make decisions that affect their future careers and education early and need to be supported
What did we learn?

- There is a great deal more work to do to understand local skills needs and the challenge is more profound than "it is difficult to recruit sustainability skills in the area".
- The biggest single issue is engagement on sustainability-related programmes – we had assumed a level of readiness for these research questions that does not yet exist.
- Preparedness (or even awareness) of the transitions needed for net zero and sustainability is perhaps much lower than anticipated.
- Sustainability language and terminology is not universally understood and can be difficult to engage with.
- The term "sustainability skills" may be viewed by some as complex, multi-faceted and important, but to others, it is ambiguous to the point of irrelevance.
- There is some selection bias in those who do participate in research and skills interventions.
- Those ready to engage with discussions on green skills aren't necessarily representative of the diversity of employers across the region.
Whiteboard exercise:

What does regional collaboration for sustainability skills success look like in 3 years' time?

What will be the markers of success?

If you look at any of points made and think, “wow, they must have a crystal ball!” or “what a great point”, add a * to the post.
How can we increase engagement? Breakout group discussions

1. Language and framing: Are we using the right words? How do we find a common language? Is "sustainability" meaningful to everyone? What effective practice are we aware of that we could learn from?

2. Empathising with employers: Have we listened to the priorities for employers? If we can understand the problems, could we collaborate to find sustainable solutions?

3. The journey to sustainability engagement: What have been the ‘tipping points’ or ‘eureka moments’ for you, or organisations you’ve worked with – what can we learn from these to help others engage?
Feedback from engagement breakouts
Wrap up and reflections

1. What should happen next?

2. What can I contribute?
Towards a sustainable skills academy

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