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# Swindon & Wiltshire LSIP Green Skills Provision Report 2024

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## Introduction

The transition to a sustainable, low-carbon economy is an imperative goal for nations worldwide, with the United Kingdom aiming to achieve net zero greenhouse gas (GHG) emissions by 2050. In alignment with this national ambition, Swindon Borough Council has committed to achieving net zero in the council's organisational GHG emissions by 2030 and pledged to support the wider community's journey to achieve net zero by 2050.<sup>1</sup> Wiltshire Council, as the accountable body for the Swindon and Wiltshire local area, has committed to helping the county of Wiltshire be carbon neutral by 2030.<sup>2</sup>

Achieving carbon neutrality requires significant reductions in GHG emissions before offsetting residual emissions. Net zero means that the amount of GHG emissions removed from the atmosphere must equal the amount emitted by human activity.<sup>3</sup> A stricter criteria then applies to offsetting residual emissions, which should be accomplished through carbon removal methods such as tree planting and carbon capture and storage technologies. However, for these offsetting methods to be sufficient, the council must have almost completely reduced emissions.<sup>4</sup>

The development and deployment of green skills across all sectors of the economy are central to meeting these targets. Green skills are recognised as a critical driver in the transition to net zero.<sup>5</sup> Wiltshire Council and Swindon Borough Council, in their Climate Strategy Delivery Plans, have highlighted the importance of retrofit and energy efficiency (including the installation of insulation and low-carbon sources of electricity and heating), as well as electric vehicles and their related infrastructure in the transition to net zero.<sup>6</sup> Wiltshire Council has also emphasised the crucial role of the natural environment and food and farming industries.<sup>7</sup>

This report investigates the following three sectors in relation to green skills and net zero, Construction and the Built Environment, Agriculture, Agri-tech and Land Management, and Advanced Manufacturing and Engineering. These sectors were selected due to a combination of

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<sup>1</sup> Swindon Borough Council, *Climate change* ([What the council is doing | Climate change | Swindon Borough Council](#))

<sup>2</sup> Wiltshire Council, *Climate Strategy 2022-2027* (February 2022) ([Wiltshire Council Climate Strategy 2022.pdf](#))

<sup>3</sup> National Grid, *Energy Explained: Carbon neutral vs net zero – understanding the difference* ([The difference between carbon neutral and net zero | National Grid Group](#))

<sup>4</sup> Wiltshire Council, *Climate Strategy 2022-2027* (February 2022) page 8 ([Wiltshire Council Climate Strategy 2022.pdf](#))

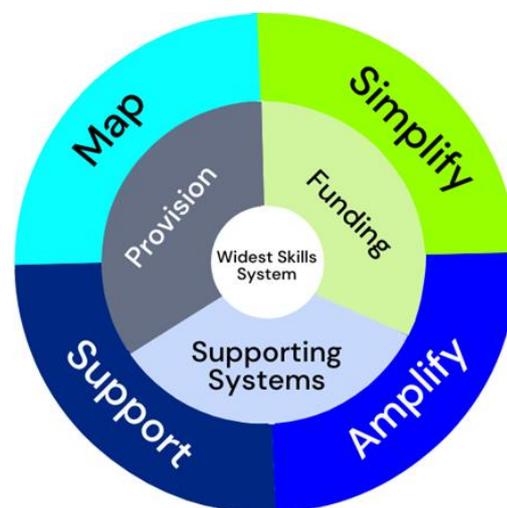
<sup>5</sup> The Economist, *Green skills: driving the transition to a more sustainable future* (2024) page 17 ([\\*Iberdrola GreenSkillsOutlook\\_report.pdf](#))

<sup>6</sup> Swindon Borough Council, *Net Zero Emissions Action Plan* (March 2023) ([Net Zero Emissions Action Plan March 2023 \(5\).pdf](#)); Wiltshire Council, *Climate Strategy 2022-2027* (February 2022) ([Wiltshire Council Climate Strategy 2022.pdf](#))

<sup>7</sup> Wiltshire Council, *Climate Strategy 2022-2027* (February 2022) page 25 ([Wiltshire Council Climate Strategy 2022.pdf](#))

factors including where there is the most need and where the Local Skills Improvement Plan (LSIP) could have the most impact.<sup>8</sup>

The research aims to gain more insight into the supply and demand for green skills in the Swindon and Wiltshire local area concerning the aforementioned sectors. It aligns with the Stage 2 LSIP objectives by mapping the post-16 green skills provision in the local area, focusing primarily on the technical green skills provision such as courses in renewable energy and retrofit (see the Green Skills Venn Diagram on page six). Additionally, the research considers the wider courses related to green pathways such as Electrical Installation, Plumbing and Heating, and other relevant areas, aiming to highlight the wider courses currently delivered in Swindon and Wiltshire. The project and subsequent report also seek to support providers and local stakeholders by identifying gaps in green skills provision within Swindon and Wiltshire. Furthermore, it offers insights into the demand for green skills from local businesses, including preferences for training times and delivery methods.



**LSIP Stage 2 Objectives**

## What are Green Skills?

*‘The lack of a standard definition makes it difficult to compare statistics on green skills and jobs. Stakeholders have suggested that a consistent definition of green skills could improve data on skills supply and demand to help forecast future needs. Some stakeholders prefer a broad definition to increase awareness that green skills are needed in every sector and to account for workforce mobility and resilience. However, others suggest that broader definitions may reduce clarity on the skills required to drive change.’<sup>9</sup>*

One challenge concerning green skills is the inconsistent definitions and understanding of what ‘green skills’ encompass.<sup>10</sup> Using a broad definition, green skills refer to the technical skills,

<sup>8</sup> For more information on why we chose the sectors we did see: *Business West, Local Skills Improvement Plans – FAQs* ([Local Skills Improvement Plans - FAQs | Business West](#))

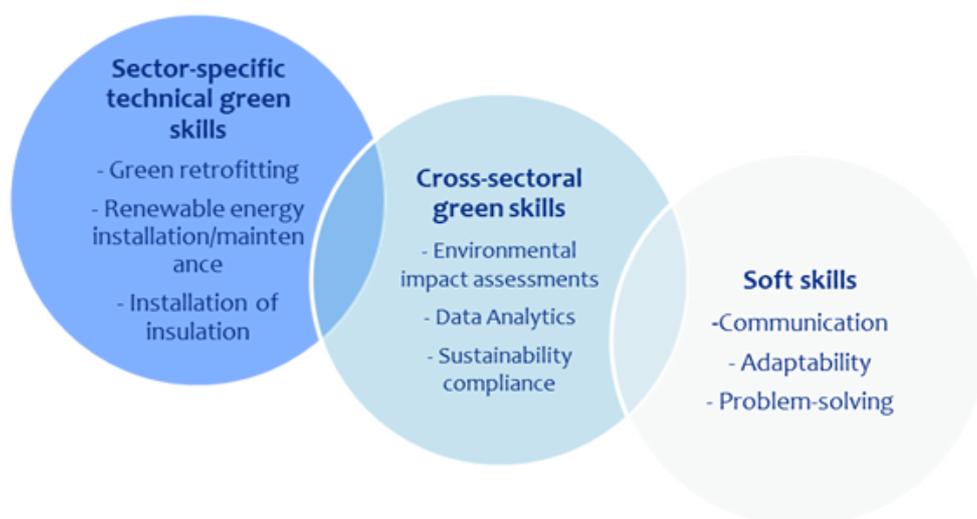
<sup>9</sup> Philippa Simmonds, Clare Lally, *Green skills in education and employment* (POSTnote 711, 18 January 2024) page 1 ([POST-PN-0711.pdf \(parliament.uk\)](#))

<sup>10</sup> Philippa Simmonds, Clare Lally, *Green skills in education and employment* (POSTnote 711, 18 January 2024) page 1 ([POST-PN-0711.pdf \(parliament.uk\)](#))

knowledge, behaviours, and capabilities required to develop and support a sustainable society.<sup>11</sup> To provide further clarity, whilst acknowledging that green skills are needed in every sector of the economy, this broad term can be broken down into three main categories:

1. **Sector-Specific Technical Green Skills:** technical skills required for using green technologies or methods focused on improving the environmental outcome of specific activities.
2. **Cross-Sectoral Green Skills:** skills that are needed to carry out environmentally friendly processes and functions that are similar across several sectors of the economy.
3. **Soft Skills:** non-vocational, non-technical skills or competencies needed to excel in green jobs and facilitate the wider green transition.<sup>12</sup>

**Venn Diagram of Green Skills.<sup>13</sup>**



<sup>11</sup> Laila Takeh, Vesselina Naskinova, *A blueprint for green workforce transformation* (Deloitte, IEMA 2022) page 6 ([A-blueprint-for-green-workforce-transformation-April-2022.pdf](#))

<sup>12</sup> The Economist, *Green skills: driving the transition to a more sustainable future* (2024) page 9 ([\\*Iberdrola\\_GreenSkillsOutlook\\_report.pdf](#))

<sup>13</sup> Venn diagram is inspired by the graphs provided by the Economist *Green skills: driving the transition to a more sustainable future* (2024) page 9 ([\\*Iberdrola\\_GreenSkillsOutlook\\_report.pdf](#)) and Philippa Simmonds, Clare Lally, *Green skills in education and employment* (POSTnote 711, 18 January 2024) page 1 ([POST-PN-0711.pdf \(parliament.uk\)](#))

The following sections provide further examples of the types of green skills broken down into the above three categories. The green skills provided are based on the Economist's research and the green skills most commonly reported by the organisations we engaged with as part of this project and the wider LSIP research.

## Sector-Specific Technical Green Skills

### Energy and Utilities

- Renewable energy system management and integration
- Heat pump, design installation and repair
- Solar photovoltaic system design, installation and repair
- District heating and cooling systems design and operation
- Green hydrogen production, storage and management
- Wind turbine design, installation and repair

### Construction

- Green retrofitting
- Sustainable building materials
- Sustainable architecture
- Life cycle assessment
- Installation of insulation, fenestration and cladding

### Transport and Logistics

- Electric vehicle design, manufacture, servicing and repairs
- Battery engineering, management and recycling
- Charge point installation and operation
- Green hydrogen production, storage and management

## Cross-Sectorial Green Skills

- Sustainability disclosure and reporting
- Environmental impact assessment
- Sustainability compliance
- Sustainable procurement
- Green/lean manufacturing

## Soft Skills

- Innovation and creativity
- Environmental awareness
- Problem-solving
- Teamwork and collaboration
- Communication and influencing
- Resilience
- Project management
- Interpersonal skill

## Sectorial Summaries

The following section examines Construction and the Built Environment, Advanced Manufacturing and Engineering, and Agriculture, Agri-tech, and Land Management, providing an overview of each sector in relation to net zero and green skills and highlighting sector-specific labour market intelligence and growth expectations. The section also summarises post-16 education courses within Swindon and Wiltshire that are relevant to specific green roles. Where local options are lacking, other regional or national initiatives are highlighted. The report will refer to a number of different qualification levels (i.e., Level 2/Level 3), for more information please see Gov.UK.<sup>14</sup>

### Construction and the Built Environment

Swindon and Wiltshire's built environment presents a varied landscape, consisting of both historical structures and modern developments. The local area has a significant number of older properties, including listed buildings, which presents unique challenges for retrofitting due to their construction methods and materials. Retrofitting these buildings to meet net zero carbon standards is particularly complex and expensive, especially for those with solid walls and heritage considerations.<sup>15</sup>

The residential sector is a critical area of focus for achieving net zero carbon emissions. Housing forecasts for Wiltshire's emerging Local Plan estimate a requirement for between 40,840 and 45,630 additional dwellings from 2016 to 2036. However, 60% of these have already been granted permission or allocated in the existing local plan, limiting opportunities to incorporate zero carbon standards from the outset. Consequently, many new buildings will need retrofitting shortly after construction to meet future standards.<sup>16</sup>

The transition to net zero carbon emissions is a pressing objective for Swindon and Wiltshire, with a 2030 target to achieve net zero emissions. Given that more than two-thirds of domestic emissions stem from the burning of fossil fuels, such as gas and heating oil, a significant shift is required. Achieving net zero in the built environment entails retrofitting approximately 400 homes per week over the next decade. This ambitious target highlights the need for substantial investment and strategic planning, particularly for housing types that are harder to retrofit.<sup>17</sup>

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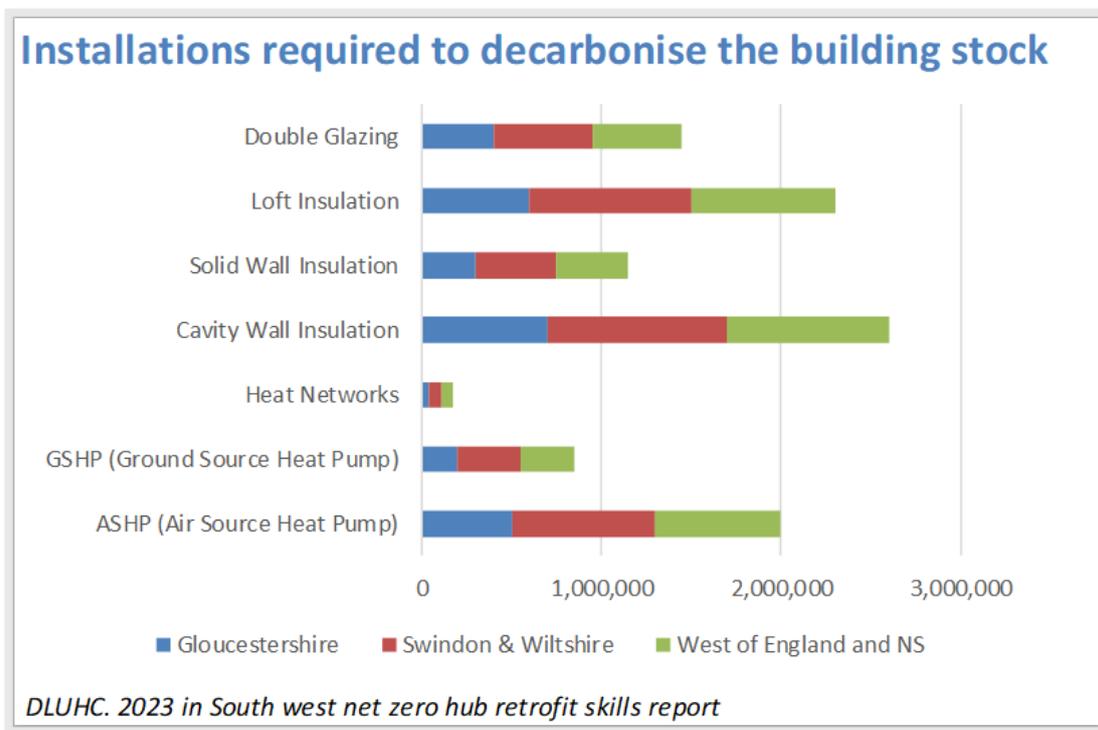
<sup>14</sup> GOV.UK, *What qualification levels mean* ([What qualification levels mean: England, Wales and Northern Ireland - GOV.UK \(www.gov.uk\)](https://www.gov.uk/what-qualification-levels-mean))

<sup>15</sup> Wiltshire Council, *Wiltshire Climate Strategy Discussion Document January 2021* (<https://www.wiltshire.gov.uk/article/5085/Built-Environment>)

<sup>16</sup> Wiltshire Council, *Wiltshire Climate Strategy Discussion Document January 2021* (<https://www.wiltshire.gov.uk/article/5085/Built-Environment>)

<sup>17</sup> Wiltshire Council, *Wiltshire Climate Strategy Discussion Document January 2021* (<https://www.wiltshire.gov.uk/article/5085/Built-Environment>)

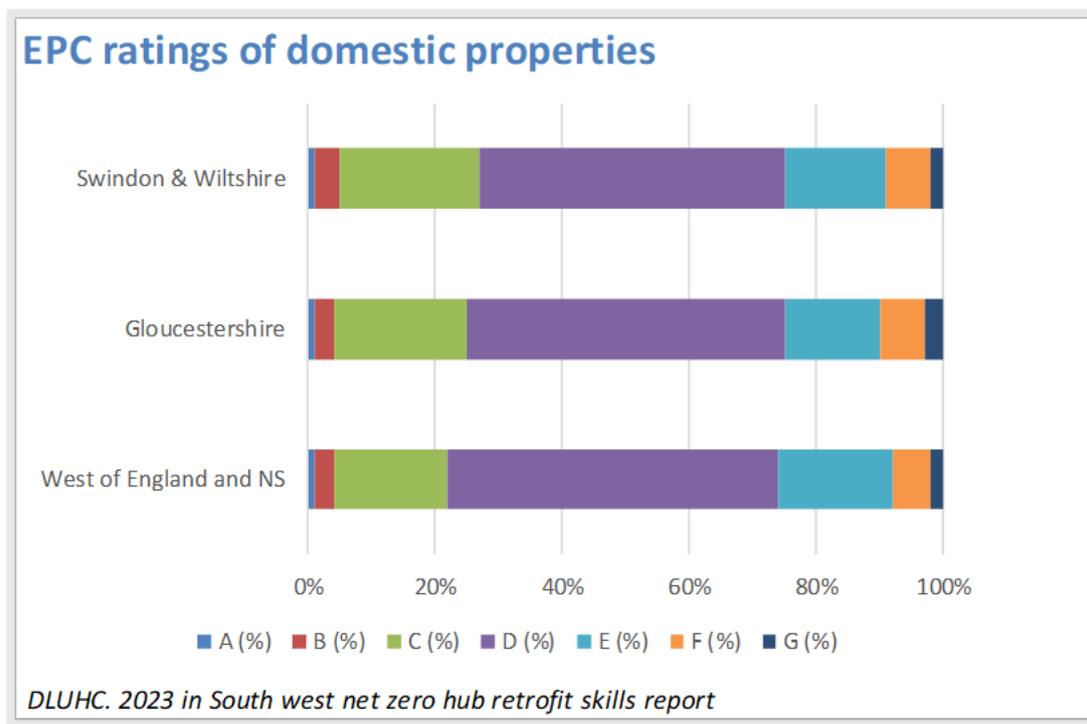
According to the Gemserv report for the South West Net Zero Hub (SWNZH), the South West region is ahead of the UK average in terms of low-carbon heating system installations. The region averages 11 installations per 1,000 households, compared to the UK average of 7.52. Swindon and Wiltshire local area reports 13 installations per 1,000 properties.<sup>18</sup>



In Swindon and Wiltshire, 42% of properties are rated A-C in their Energy Performance Certificate, slightly below the national average of 43%. Nonetheless, Swindon and Wiltshire stand out with nearly half of domestic properties achieving A-C ratings. Swindon itself is notable, with over half of homes in the local authority area rated A-C, the highest in the South West. This higher efficiency rating offers a strong foundation for further improvements and targeted retrofit programmes.<sup>19</sup>

<sup>18</sup> Gemserv, South West Net Zero Hub, *South West Net Zero Hub Retrofit Skills Report* (April 2023) ([SWNZH-retrofit-skills-report-FINAL-2.pdf \(swnetzerohub.org.uk\)](https://swnetzerohub.org.uk/SWNZH-retrofit-skills-report-FINAL-2.pdf))

<sup>19</sup> Gemserv, South West Net Zero Hub, *South West Net Zero Hub Retrofit Skills Report* (April 2023) ([SWNZH-retrofit-skills-report-FINAL-2.pdf \(swnetzerohub.org.uk\)](https://swnetzerohub.org.uk/SWNZH-retrofit-skills-report-FINAL-2.pdf))



However, the South West region faces challenges in terms of available skilled labour for insulation installation.<sup>20</sup> Gemserv has developed four decarbonisation scenarios to outline potential pathways for decarbonising the building stock in the SWNZH region and the resulting skills requirements.<sup>21</sup> According to their calculations, the South West will need the additional equivalent to full-time positions to meet the workforce requirements to insulate and retrofit its building stock.

Workforce Requirement	Urgent Action (2028)	Workforce Requirement	Balanced Approach (2035)
Solid Wall Insulation	10700	Solid Wall Insulation	4700
Cavity Wall Insulation	950	Cavity Wall Insulation	290
Double Glazing	210	Double Glazing	48
Loft Insulation	210	Loft Insulation	48
Retrofit Assessors	440	Retrofit Assessors	127
Retrofit Coordinators	292	Retrofit Coordinators	48
Workforce Requirement	Gradual Intervention (2036)	Workforce Requirement	LEP Net Zero (2036)
Solid Wall Insulation	3400	Solid Wall Insulation	2700
Cavity Wall Insulation	182	Cavity Wall Insulation	
Double Glazing	25	Double Glazing	25
Loft Insulation	25	Loft Insulation	25
Retrofit Assessors	86	Retrofit Assessors	25
Retrofit Coordinators	35	Retrofit Coordinators	90

<sup>20</sup> Gemserv, South West Net Zero Hub, *South West Net Zero Hub Retrofit Skills Report* (April 2023) ([SWNZH-retrofit-skills-report-FINAL-2.pdf \(swnetzerohub.org.uk\)](#))

<sup>21</sup> Gemserv, South West Net Zero Hub, *South West Net Zero Hub Retrofit Skills Report* (April 2023) ([SWNZH-retrofit-skills-report-FINAL-2.pdf \(swnetzerohub.org.uk\)](#))

## Post-16 Education Pathways – Construction & the Built Environment

### Insulation Installer

Gemserv's report highlights how Swindon and Wiltshire have the lowest density of insulation labour, with just 36 individuals per 100,000 inhabitants possessing the necessary skills.<sup>22</sup> In addition, across the wider South West region, cavity wall insulation is the second most required skill.<sup>23</sup> According to the National Careers Service, individuals looking to become a cavity insulation installer could consider Apprenticeships like the Level 2 Commercial Thermal Insulation Operative,<sup>24</sup> or the Level 3 Industrial Thermal Insulation Technician.<sup>25</sup> Currently, there are two providers in the UK offering these Apprenticeships, and both are outside of the South West region.<sup>26</sup> Another pathway is the Level 2 NVQ in Insulation and Building Treatments,<sup>27</sup> however, this is also not delivered within the South West region.<sup>28</sup> Although there are no college courses in Swindon and Wiltshire specifically referencing insulation installation in their course content, some courses may cover the topic even if it is not listed on their websites.

In the absence of any insulation-specific courses in Swindon and Wiltshire, new entrants may be able to take a construction or building-related course, and then apply to an employer directly for work as a cavity insulation installer.<sup>29</sup> Alternatively, the Green Construction Advisory Panel offers several Level 2 qualifications in the following areas - draft proofing, floor insulation, loft insulation, external wall insulation, and internal wall insulation.<sup>30</sup> The courses have been developed in collaboration with industry bodies INCA, SWIGA, and the NIA, they are endorsed by the NOCN and vary between one and three days in duration. Individuals within Swindon and Wiltshire could therefore upskill via one of the above-mentioned courses. To register for one of the courses

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<sup>22</sup> Gemserv, South West Net Zero Hub, *South West Net Zero Hub Retrofit Skills Report* (April 2023) ([SWNZH-retrofit-skills-report-FINAL-2.pdf \(swnetzerohub.org.uk\)](#))

<sup>23</sup> Gemserv, South West Net Zero Hub, *South West Net Zero Hub Retrofit Skills Report* (April 2023) page 47 ([SWNZH-retrofit-skills-report-FINAL-2.pdf \(swnetzerohub.org.uk\)](#))

<sup>24</sup> Institute for Apprenticeships and Technical Education, *Commercial Thermal Insulation Operative* ([Commercial thermal insulation operative / Institute for Apprenticeships and Technical Education](#))

<sup>25</sup> Institute for Apprenticeships and Technical Education, *Industrial Thermal Insulation Technician* ([Industrial thermal insulation technician / Institute for Apprenticeships and Technical Education](#))

<sup>26</sup> According to Gov.UK, *Commercial thermal insulation operative (level 2)* ([Commercial thermal insulation operative \(level 2\) - apprenticeship training course \(education.gov.uk\)](#)) and Gov.UK, *Industrial thermal insulation technician (level 3)* ([Industrial thermal insulation technician \(level 3\) - apprenticeship training course \(education.gov.uk\)](#)). The providers are Buildskill Colchester/Buildskill Doncaster; or Thermal Insulation Contractors Association Darlington

<sup>27</sup> City & Guilds, *Insulation and Building Treatments (5931)* ([Insulation and Building Treatments qualifications and training courses | City & Guilds \(cityandguilds.com\)](#))

<sup>28</sup> For providers delivering this NVQ nationally, see the approved providers on the City and Guilds website: City & Guilds, *Insulation and Building Treatments (5931)* ([Insulation and Building Treatments qualifications and training courses | City & Guilds \(cityandguilds.com\)](#))

<sup>29</sup> Go Construct, *Cavity Insulation Installer* ([What Is A Cavity Insulation Installer? \(Job Description\) | Go Construct](#))

<sup>30</sup> Green Construction Advisory Panel, *Courses: Insulation* ([Insulation – Green Construction Advisory Panel \(thegcap.co.uk\)](#))

individuals must be employed or self-employed and working within a trade currently installing the type of insulation the course is focused on.

### Heat Engineer (Heat Pump Installers/Technicians)

To ensure deployment rates are met for heat engineers, we need to retain those working within the industry, upskill those currently installing oil and gas boilers, and attract new entrants to the sector. For new entrants to the workforce, an individual could take a college course in a related subject like plumbing and heating, or a T Level in Building Services Engineering for Construction.<sup>31</sup> This T-Level is not currently offered in Swindon and Wiltshire, the nearest provider would be Newbury College.<sup>32</sup> Wiltshire College & University Centre, and New College Swindon do however offer Level 1 and Level 2 Plumbing courses,<sup>33</sup> as well as the Level 3 Apprenticeship in Plumbing and Domestic Heating.<sup>34</sup> The Level 3 Apprenticeship allows learners to focus on environmental technologies, including heat pumps and solar thermal systems. After completing this apprenticeship, learners could take a specific heat pump course to gain the skills and knowledge needed to become a Heat Pump Engineer. In Swindon and Wiltshire, GRANT UK offers training for installers looking to upskill on their specific Air Source Heat Pumps, while Energy Development Services offers non-manufacturer-specific training in heat pumps, see the table below for more information:

Provider	Name of Course	Length
GRANT UK	Grant Aeron <sup>3</sup> Air Source Heat Pumps	2 days
Energy Development Services Ltd	Heat Pumps	2–4-day courses available

Another pathway to becoming a Heat Engineer would be to take the Level 3 Low Carbon Heating Technician Advanced Apprenticeship.<sup>35</sup> An Apprentice on this course would learn to plan, select and size, install, commission, service and maintain zero carbon central heating and hot water systems, including but not limited to ground source heat pumps and air source heat pumps.<sup>36</sup> Currently, no

<sup>31</sup>National Careers Service, *Heat pump engineer* ([nationalcareers.service.gov.uk/job-profiles/heat-pump-engineer](https://nationalcareers.service.gov.uk/job-profiles/heat-pump-engineer)); Green Careers Hub, *Heat Pump Installer* ([Heat Pump Installer - Green Careers Hub](#))

<sup>32</sup> HM Government, *Find your Nearest T Level* ([Find a T Level | T Levels](#))

<sup>33</sup> New College Swindon, *Technical Courses* ([Technical - New College Swindon](#)); Wiltshire College & University Centre, *Our Courses* ([Study | Wiltshire College & University Centre](#))

<sup>34</sup> Wiltshire College & University Centre, *Level 3 Plumbing & Domestic Heating Technician* ([Level 3 Plumbing & Domestic Heating Technician | Wiltshire College & University Centre](#)); New College Swindon, *Plumbing and Domestic Heating Technician Level 3 Apprenticeship* ([Plumbing and Domestic Heating Technician Level 3 Apprenticeship \(newcollege.ac.uk\)](#))

<sup>35</sup> National Careers Service, *Heat pump engineer* from the National Careers Service ([nationalcareers.service.gov.uk/job-profiles/heat-pump-engineer](https://nationalcareers.service.gov.uk/job-profiles/heat-pump-engineer))

<sup>36</sup> Institute for Apprenticeships and Technical Education, *Low Carbon Heating Technician* ([Low carbon heating technician / Institute for Apprenticeships and Technical Education](#))

providers are offering this apprenticeship in Swindon and Wiltshire, and the nearest provider is the South West Construction Academy (SWCA) in Bristol.<sup>37</sup>

It is important to note that Gemserv’s 2023 Report highlighted that the take-up of heating apprenticeships is far below what is required to upskill the number of heat engineers required for net zero goals to be achieved, which underscores the need to stimulate demand for these pathways and related courses.<sup>38</sup>

### Solar Installer

There are several routes an individual could take to become a solar installer. An individual could first complete a course in Electrical Installation at Wiltshire College & University Centre, or New College Swindon, both offer several courses in Electrical Installation ranging from Level 2 to Level 3.<sup>39</sup> The Level 2 Electrical Installation would equip learners with the skills to progress onto one of the Level 3 Electrical Apprenticeships,<sup>40</sup> offered by Wiltshire College & University Centre,<sup>41</sup> and New College Swindon.<sup>42</sup> As part of the apprenticeship, learners can expect to engage in green and renewable technologies and upon completing the apprenticeship would be a fully qualified Electrician.

Once obtaining the relevant electrical qualifications, an individual could then undertake a specialist solar panel installation course, such as the course offered by GTEC below:

Provider	Name of Course	Length
GTEC Training (in collaboration with YourSpace)	Solar PV Training	3 days

<sup>37</sup> South West Construction Academy, *Low Carbon Heating Technician* ([Low Carbon Heating technician L3 Apprenticeship | SWCA \(swconstructionacademy.co.uk\)](https://www.swconstructionacademy.co.uk))

<sup>38</sup> South West Retrofit Hub, *Retrofit Skills Report* (April 2023) [South west net zero hub retrofit skills report \(swnetzerohub.org.uk\)](https://www.swnetzerohub.org.uk) page 51

<sup>39</sup> Go Construct, *Solar Panel Installer* ([Solar Panel Installer Job Description & Duties | Go Construct](https://www.goconstruct.co.uk))

<sup>40</sup> New College Swindon, *Electrical Installation Level 2 Diploma* ([Electrical Installation Level 2 Diploma \(newcollege.ac.uk\)](https://www.newcollege.ac.uk))

<sup>41</sup>Wiltshire College & University Centre, *Installation Electrician/Maintenance Electrician Apprenticeship (Level 3)* ([Installation Electrician/Maintenance Electrician Apprenticeship \(Level 3\) | Wiltshire College & University Centre](https://www.wiltshirecollege.ac.uk))

<sup>42</sup> New College, *Electrical Installation Apprenticeship Level 3* ([Electrical Installation Apprenticeship Level 3 \(newcollege.ac.uk\)](https://www.newcollege.ac.uk))

## Wiltshire College & University Centre – Lackham Eco House

The Report also wishes to highlight the work underway at Lackham Eco House, funded by the Local Skills Improvement Plan Fund.<sup>43</sup> This renovation project, led by Wiltshire College & University Centre in collaboration with local employers, is transforming a cottage on the Lackham Campus to net zero standards. The renovation includes installing external wall insulation, an air source heat pump, solar panels, and battery storage to significantly enhance energy efficiency. All modifications are being made with respect to the heritage significance of the Lackham estate. Once completed, Lackham Eco House will serve as an accessible centre for individuals, students, building services engineers, and employers to upskill in renewable technology.<sup>44</sup>

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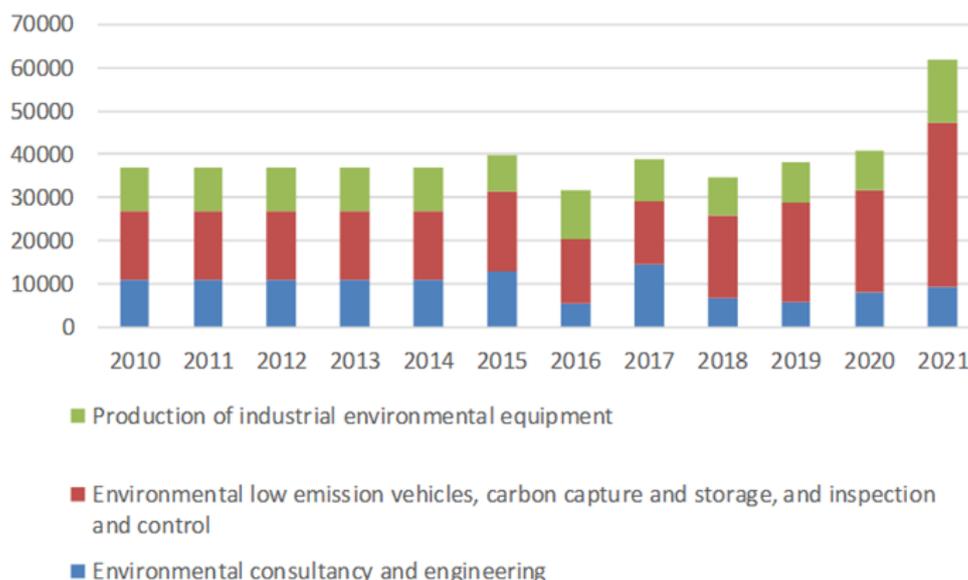
<sup>43</sup> The local skills improvement fund (LSIF) enables further education (FE) providers across a geographic area to respond collectively to the priorities in the LSIPs. For more information see: Gov.UK, *Local skills improvement plans (LSIPs) and local skills improvement fund (LSIF)* ([Local skills improvement plans \(LSIPs\) and local skills improvement fund \(LSIF\) - GOV.UK \(www.gov.uk\)](#))

<sup>44</sup> Wiltshire College & University Centre, *WCUC to launch exciting green construction and digitalisation projects through Local Skills Improvement Fund* (28<sup>th</sup> November 2023) ([WCUC to launch exciting green construction and digitalisation projects through... | Wiltshire College & University Centre](#)); Jessica Moriarty, *Lackham House to be refurbished by Wiltshire College and University* (BBC News, 10<sup>th</sup> April 2024) ([Lackham House to be refurbished by Wiltshire College and University - BBC News](#))

## Advanced Manufacturing and Engineering

In 2022, UK businesses generated an estimated £69.4 billion in Low Carbon and Renewable Energy Economy (LCREE) turnover, marking a £15.2 billion (28.0%) increase since 2021. LCREE employment in 2022 was estimated at 272,400 full-time equivalent (FTE) employees, an increase of 20,100 FTE (8.0%) from 2021. Additionally, the number of businesses active in the LCREE sector rose by 9.6%, from 88,500 in 2021 to 97,000 in 2022.<sup>45</sup>

### Environmental manufacturing employment, UK.



Source: ONS (2024), *Environmental goods and services sector (EGSS)*.

In the Swindon and Wiltshire local area, manufacturing is one of the largest contributors to GVA output, accounting for 9% of local employment.<sup>46</sup> The intensity of local industrial production means that larger industrial facilities, including factories, warehouses, and workshops associated with manufacturing and engineering, account for 13.4% of the local area emissions.<sup>47</sup> However, this can be a source of opportunity, as Swindon and Wiltshire possess several sector strengths, particularly in low-carbon industries, positioning the local area well to leverage macroeconomic shifts and innovative solutions related to the transition to the net zero transition.<sup>48</sup>

On-road transport contributes significantly to emissions in Swindon and Wiltshire, accounting for 33.2% of total emissions. This includes emissions from all forms of on-road passenger vehicles,

<sup>45</sup> ONS Low carbon and renewable energy economy, UK (2022) [Low carbon and renewable energy economy, UK - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk)

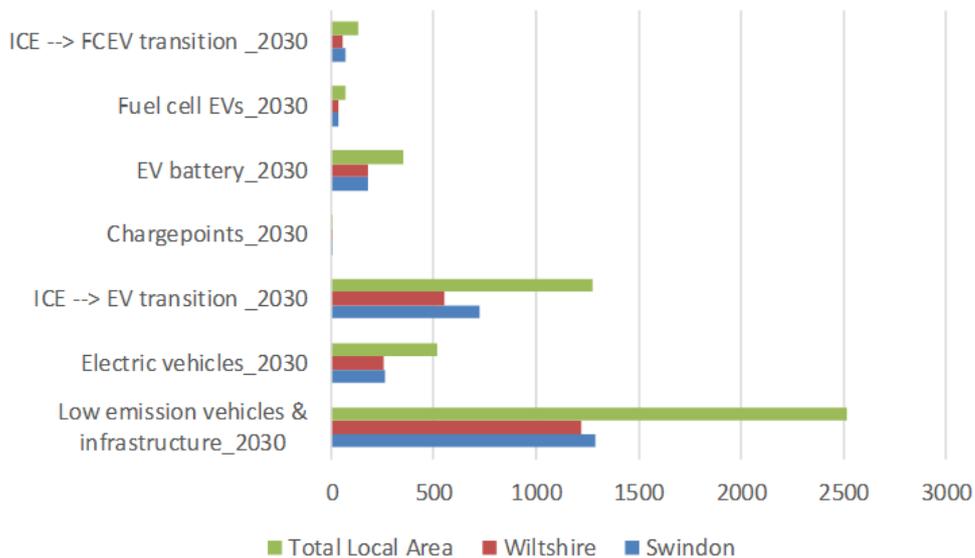
<sup>46</sup> SWLEP *Swindon and Wiltshire Local Economic Assessment* (2022) [Swindon and Wiltshire Local Economic Assessment \(swlep.co.uk\)](https://swlep.co.uk)

<sup>47</sup> Anthesis *Wiltshire Carbon Emissions Baselines and Reduction Pathways* (2022) [PowerPoint Presentation \(wiltshire.gov.uk\)](https://wiltshire.gov.uk)

<sup>48</sup> SWLEP *Swindon and Wiltshire Local Economic Assessment* (2022) [Swindon and Wiltshire Local Economic Assessment \(swlep.co.uk\)](https://swlep.co.uk)

such as cars, vans, motorcycles, buses, and taxis. One of the key interventions to mitigate these emissions is the transition to electric vehicles (EVs).<sup>49</sup> It is estimated that Swindon and Wiltshire will need 1,224 jobs in the Low Emissions Vehicles industry by 2030.<sup>50</sup>

### Projected employment in the EV economy



Source: Local Government Association (2023), Local Green Jobs.

Swindon and Wiltshire is home to a strong automotive industry heritage and a vibrant network of innovative engineering, manufacturing, and technology companies and is well positioned for the further development of new energy vehicle research, design, and manufacturing. Companies in the area already support a number of sectors complementary to automotive supply chains, including Aerospace, Agri-tech, Digital, and Rail.<sup>51</sup>

## Post-16 Education Pathways – Advanced Manufacturing and Engineering

### Electric and Hybrid Vehicles

For individuals looking to work with electric and hybrid vehicles, there are many different job roles, including but not limited to Electric Vehicle Technician/Mechanic, Electric Vehicle charging point Installer, or Battery Technician/Engineer.<sup>52</sup> Depending on the job role and required qualifications, individuals could consider the Motor Vehicle qualifications at New College Swindon, ranging from

<sup>49</sup> Anthesis, *Wiltshire Carbon Emissions Baselines and Reduction Pathways* (2022) [PowerPoint Presentation \(wiltshire.gov.uk\)](http://wiltshire.gov.uk)

<sup>50</sup> SWLEP, *Swindon and Wiltshire Local Economic Assessment* (2022) [Swindon and Wiltshire Local Economic Assessment \(swlep.co.uk\)](http://swlep.co.uk)

<sup>51</sup> SWLEP, *Research, Design and Manufacturing of New Energy Vehicles in Swindon and Wiltshire* (2021) [Layout 1 \(swlep.co.uk\)](http://swlep.co.uk)

<sup>52</sup> South London, *Green Job Profile: EV Installer* ([Green Job Profiles | EV Installer \(careershub-south.london\)](http://careershub-south.london))

Level 1 to Level 3.<sup>53</sup> Wiltshire College & University Centre also offers several Level 1 to Level 3 Automotive qualifications,<sup>54</sup> including the IMI Level 2 Autocare Technician Apprenticeship which in part focuses on Hybrid/Electric Vehicle systems and safe working procedures.<sup>55</sup> If an individual wants to design and install electric vehicle charging points, they could also look at one of the many Electrical Installation courses in the local area and the courses delivered by Wiltshire College & University Centre and New College Swindon.

A learner could complete one of these courses before undertaking specific training for electric and hybrid vehicles. The only specialised course in Swindon and Wiltshire at the time of writing is the Electric/Hybrid Vehicle Awareness Course, delivered by Wiltshire College & University Centre. The Level 1 course is designed to provide learners with the knowledge of how to identify electric vehicles (EVs) and health and safety when working on EVs, upon completion learners will achieve an IMI Level 1 Award in Electric Vehicles.<sup>56</sup>

Provider	Name of Course	Length
Wiltshire College & University Centre	Electric/Hybrid Vehicle Awareness	Part-time

There is also a number of Engineering courses available in Swindon and Wiltshire that support green pathways in Engineering.<sup>57</sup> UTC Swindon offers a number of Engineering Diplomas that focus on Engineering alongside other STEM subjects (for example, Maths/Physics/IT).<sup>58</sup> Swindon and Wiltshire Institute of Technology provides a Level 3 Civil Engineering Apprenticeship, which includes modules on sustainable construction and could lead to advanced qualifications in Civil Engineering, such as the Level 4 Higher National Certificate (HNC) at Swindon and Wiltshire Institute of Technology, further preparing students for the green economy.<sup>59</sup>

<sup>53</sup> New College Swindon, *Motor Vehicle* ([Motor Vehicle Level 1, 2 & 3 Courses | Swindon, Wiltshire \(newcollege.ac.uk\)](https://www.newcollege.ac.uk/courses/motor-vehicle))

<sup>54</sup> Wiltshire College & University Centre, *Automotive Maintenance Courses* ([Automotive Maintenance | Wiltshire College & University Centre](https://www.wiltshirecollege.ac.uk/courses/automotive-maintenance))

<sup>55</sup> Wiltshire College & University Centre, *IMI Level 2 Autocare Technician* ([IMI Level 2 Autocare Technician | Wiltshire College & University Centre](https://www.wiltshirecollege.ac.uk/courses/imi-level-2-autocare-technician))

<sup>56</sup> Wiltshire College & University Centre, *Level 1 Award in Electric/Hybrid Vehicle Awareness* ([Level 1 Award in Electric/Hybrid Vehicle Awareness | Wiltshire College & University Centre](https://www.wiltshirecollege.ac.uk/courses/level-1-award-in-electric-hybrid-vehicle-awareness))

<sup>57</sup> See FE providers websites for more detail: Swindon and Wiltshire Institute of Technology, *Engineering & Construction* ([Engineering & Construction - Swindon and Wiltshire Institute of Technology \(sawiot.ac.uk\)](https://www.sawiot.ac.uk/courses/engineering-and-construction)); Wiltshire College & University Centre, *Our Courses* ([Study | Wiltshire College & University Centre](https://www.wiltshirecollege.ac.uk/courses)); New College Swindon, *Engineering* ([Engineering Level 3 Diploma & CTEC Courses | Swindon, Wilts \(newcollege.ac.uk\)](https://www.newcollege.ac.uk/courses/engineering))

<sup>58</sup> UTC Swindon, Year 12 & 13 Study ([Year 12 & 13 Study | UTC Swindon](https://www.utcswindon.ac.uk/courses/year-12-13-study))

<sup>59</sup> Swindon and Wiltshire Institute of Technology, *Civil Engineering Apprenticeship Level 3* ([Civil Engineering Apprenticeship Level 3 \(sawiot.ac.uk\)](https://www.sawiot.ac.uk/courses/civil-engineering-apprenticeship-level-3)); Swindon and Wiltshire Institute of Technology, *Civil Engineering HNC HTQ* ([Civil Engineering HNC HTQ \(sawiot.ac.uk\)](https://www.sawiot.ac.uk/courses/civil-engineering-hnc-htq))

Additionally, Wiltshire College & University Centre offers two Higher National Engineering Diplomas (HNDs) at Level 5: one focused on Electronic/Electrical Engineering and the other on General Engineering.<sup>60</sup> Graduates of the Electronic/Electrical HND can pursue careers as Electrical or Electronic Engineers, roles essential for developing sustainable technologies and infrastructure.<sup>61</sup> Whilst the General Engineering HND prepares students for professions in Mechanical or Civil Engineering, both are critical roles for implementing and maintaining green solutions.<sup>62</sup>

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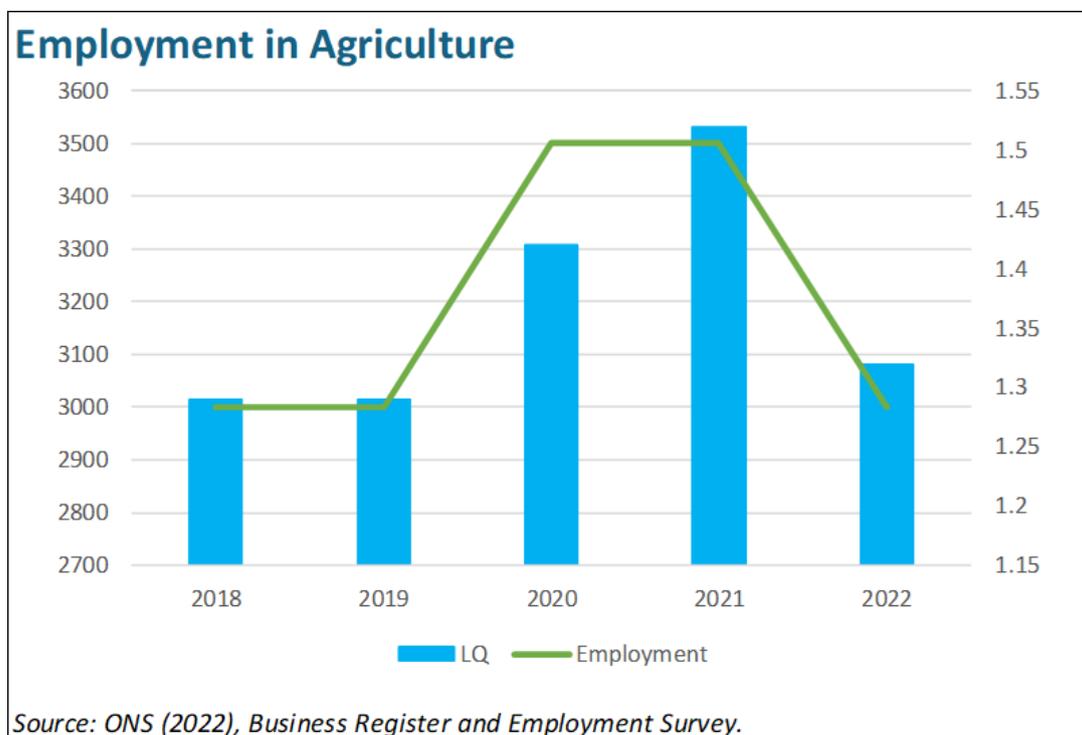
<sup>60</sup> Wiltshire College & University Centre, *HND Engineering (General) (part-time)* [HND Engineering \(General\) \(part-time\) | Wiltshire College & University Centre](#)

<sup>61</sup> Wiltshire College & University Centre, *HND Engineering (Electronic / Electrical) (part-time)* ([HND Engineering \(Electronic / Electrical\) \(part-time\) | Wiltshire College & University Centre](#))

<sup>62</sup> Wiltshire College & University Centre, *HND Engineering (General) (part-time)* [HND Engineering \(General\) \(part-time\) | Wiltshire College & University Centre](#)

## Agriculture, Agri Tech and Land Management

The South West region is home to nearly a quarter of the nation's agricultural holdings, contributing twice as much to the economy and generating twice as many jobs as the average English region. Within the South West, Wiltshire is the most farmed county, with more than three-quarters of its land being farmed commercially (273,555 ha of Wiltshire's total 348,500 ha).<sup>63</sup>



The agricultural sector's employment figures in Swindon and Wiltshire between 2018 and 2022 highlight its importance within the local economy. The Location Quotient (LQ) consistently above 1 suggests that agriculture employs a greater share of the local workforce than the national average, indicating the sector's prominence in the local area - in Swindon and Wiltshire, the agricultural sector is overrepresented at 7% compared to 4% nationally.

According to the SCATTER analysis conducted in 2019, agriculture accounts for 4% of Wiltshire's emissions, equating to 112.9 kilotonnes of CO2 equivalent (ktCO2e).<sup>64</sup> Agriculture, forestry, and other land uses contribute to GHG emissions through various activities:

- **Methane Emissions:** Predominantly from livestock, methane is a potent GHG contributing significantly to agricultural emissions.

<sup>63</sup> Wiltshire Council, *Wiltshire Climate Strategy Discussion Document January 2021* (<https://www.wiltshire.gov.uk/article/5090/Natural-environment-land-use-and-farming>)

<sup>64</sup> Wiltshire Council, *Wiltshire Climate Strategy Discussion Document January 2021* (<https://www.wiltshire.gov.uk/article/5090/Natural-environment-land-use-and-farming>)

- **Fertiliser Use:** Production and application of fertilisers release nitrous oxide, another powerful GHG.
- **Soil Disturbance:** Activities such as tillage and compaction disrupt soil carbon storage, releasing CO<sub>2</sub>.
- **Energy Use:** The operation of farm buildings, machinery, and management of waste also contribute to emissions.<sup>65</sup>

## Post-16 Education Pathways – Agriculture, Agri-tech and Land Management

From September 2024, Wiltshire College & University Centre will deliver the T Level in Agriculture, Environmental, and Animal Care - Land-Based Engineering course.<sup>66</sup> A core component of this course is sustainability; learners will develop their understanding of topics including environmental legislation, sustainable development, climate change, and waste management principles. Green skills will therefore be embedded within the delivery of the course. Wiltshire College & University Centre also delivers Level 2 - Level 3 general Agricultural courses, as well as the Level 3 Crop Technician Apprenticeship, providing learners with the skills and knowledge to optimise crop/plant yields, while maintaining and improving the surrounding environment.<sup>67</sup>

At the time of writing, there are no providers offering short modular technical green skills courses within Swindon and Wiltshire for the Agricultural sector. Examples of short, modular provision outside of Swindon and Wiltshire include the Level 2 Regenerative Land-Based Systems Skills Bootcamp, delivered by the Apricot Centre for residents of Devon, funded by the Department for Education and Devon County Council (note: you have to be a resident of Devon to register for the course).<sup>68</sup> Additionally, New Anglia Local Enterprise Partnership for Norfolk and Suffolk is delivering two Agricultural and Land Management Bootcamps in Arboriculture and Horticulture, both offering a Level 2 Award in Practical Environmental and Conservation Skills.<sup>69</sup>

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<sup>65</sup> Wiltshire Council, *Wiltshire Climate Strategy Discussion Document January 2021*

(<https://www.wiltshire.gov.uk/article/5090/Natural-environment-land-use-and-farming>)

<sup>66</sup> Wiltshire College & University Centre, *T Level in Agriculture, Environmental and Animal Care - Land-Based Engineering* ([T Level in Agriculture, Environmental and Animal Care - Land-Based Engineering | Wiltshire College & University Centre](#))

<sup>67</sup> Wiltshire College & University Centre, *Crop Technician Apprenticeship (Level 3)* ([Crop Technician Apprenticeship \(Level 3\) | Wiltshire College & University Centre](#))

<sup>68</sup> Apricot Centre, *Skills Bootcamp in Regenerative Land-Based Systems* ([Level 2 Skills Bootcamp: Regenerative Land-Based Systems | The Apricot Centre - cultivating sustainability](#))

<sup>69</sup> New Anglia, *Skills Bootcamps* ([Skills Bootcamps - New Anglia](#))

## An Analysis of Green Skills Bootcamps

The below section provides an overview of the Green Skills Bootcamps that are currently being delivered or are planned for delivery in the South West and South East of the UK - accurate as of July 2024.

### What are Green Skills Bootcamps?

Skills Bootcamps help individuals develop skills in specific areas that employers are looking for, they are designed to be flexible and typically take up to 16 weeks to complete. Skills Bootcamps are delivered nationally and offer training for many different sectors. One of the areas is green skills. The Green Skills Bootcamps are aimed at upskilling learners with the skills required to meet the needs of the green economy and support the transition to a low-carbon society.

Green Skills Bootcamps can upskill learners in areas including, but not limited to:

- Transport: Electric and Hybrid Vehicles, Rail
- Energy: Solar, Wind, Heat Pumps
- Retrofit: Retrofit Assessor, Retrofit Coordinator
- Agriculture and Land Management
- Organisational Sustainability

The Green Skills Bootcamps currently being delivered in the South West (accurate as of July 2024) cover a range of topics including renewable energy technologies, retrofit and energy efficiency, and ecology, conservation and natural resource management. As shown in the table below, the majority of Bootcamps delivered at the time of writing are in Devon. There are no Green Skills Bootcamps currently being delivered in Swindon and Wiltshire.

**Table 1: Green Skills Bootcamps Delivered in the South West**

Region	Provider	Name of course
Devon	YTKO	Skills Bootcamps - Future of Construction
Devon	City College Plymouth	Green Skills and Retrofit Bootcamp
Devon	Petroc	Heritage Construction Skills
Devon	Petroc	Sustainable Methods of Construction
Devon	TradeTechs Northern	Step into Offshore
Devon	TradeTechs Northern	Step into Global Wind

Devon	Petroc	Ecology and Conservation
Devon	University of Plymouth	Future Climate Leaders
Devon	On Course South West	Green Protection of Natural Resources
Devon	Apricot Centre CIC	Regenerative Land Systems - Food and Farming
Devon	On Course South West	Green Protection of Natural Resources
Cornwall	Truro and Penwith College	Retrofit Readiness
West of England; Devon; Cornwall	Focus Training	Sustainable Green Skills
West of England	UWE	Achieving Zero Carbon Buildings
Gloucestershire; West of England	SGS College	Skills Bootcamp - Air Source Heat Pump
Gloucestershire; West of England	SGS College	Skills Bootcamp - Solar PV
Gloucestershire; West of England	SGS College	Introduction to Green Skills

The below table summarises Green Skills Bootcamps that were previously delivered in the West of England.

**Table 2: Green Skills Bootcamps Previously Delivered in the West of England**

Region	Provider	Name of Course
West of England	Bath College	Retrofit Assessor Skills Bootcamp
West of England	Retrofit Academy	Domestic Retrofit Assessment
West of England	GTEC & SGS College	Retrofit Coordination and Risk Assessment
West of England	Bath College	Environmental Technology Skills Bootcamp; Air Source Heat Pumps
West of England	Yeovil College	Skills Bootcamp in Electric and Hybrid Vehicle Repair and Replacement
West of England	Bath College	Electric Charging Point Skills Bootcamp
West of England	Weston College	Electric Vehicle & Hybrids - Skills Bootcamp

For wider context, Table 3 summarises the Green Skills Bootcamps currently being delivered, or planned for delivery within the South East.

**Table 3: Green Skills Bootcamps Delivered in the South East**

Region	Provider	Name of Course
Hampshire	Silver Trowe	Understanding Domestic Retrofit
Hampshire	Yuzu Training	Air Source Heat Pumps Bootcamp
Hampshire	Momentum Recruitment	Retrofit Principles
Hampshire	Yuzu Training	Transport (EV Charge Points)
Surrey	Retrofit Academy	Domestic Energy Assessment and Domestic Retrofit Assessment
Surrey	Kiwi & Yuzo Ltd	Construction - Heat Pumps Skills Bootcamp
Surrey	MIT Skills	Solar Systems and Energy Storage
Surrey	MIT Skills	Electric Vehicle Charging Points and Energy Storage
Surrey	Activate Learning	Skills Bootcamp in Sustainability

## National Green Skills Bootcamps

For a wider context of Green Skills Bootcamps being delivered, the below section provides an analysis of the Bootcamps delivered at a national level, based on information from the National Careers Service.<sup>70</sup> The analysis is organised by themes corresponding to the terms searched on the National Careers Service website.

Please note that the initial number of Bootcamps shown on the National Careers Service website when searching specific terms - such as "heat pumps" - may reflect local authorities that have funding to deliver the Bootcamp in multiple areas, the same Bootcamp with different start dates, or different accreditation bodies.

## Heat Pumps

The Heat Pump courses currently being offered focus on various aspects including design, installation, maintenance, heat pump and F-Gas installation, air source heat pumps, and mental health awareness. A total of twenty-eight courses were found; however, many were from the same providers or councils with different start dates or locations or were accredited by different bodies. There are nine local councils currently that have allocated funding for Heat Pump Bootcamps. Of

<sup>70</sup> National Careers Service, 'Find a course' ([Results](#) | [Find a course](#) | [National Careers Service](#))

the twenty-eight courses, twenty-four are accredited by bodies including LCL, BPEC, NICEIC, NCFE, NOCN, and City & Guilds, with more than half accredited by NICEIC.

## Solar

Currently, only one Green Skills Bootcamp related to solar energy is displayed on the National Careers Service website. The Solar Photovoltaic Systems and Energy Storage course is delivered by MIT Skills Limited in Surrey and is accredited by LCL. SGS College offers Level 3 Skills Bootcamp in Solar PV, accredited by LCL Awards, delivered in Bristol or Gloucestershire. However, this was not listed on the National Careers Service website.

## Insulation

There are three Insulation Bootcamps available, focusing on Insulation and Building Treatments and Insulation Technician roles, offered in two local authority regions: West Midlands Combined Authority and New College Durham. These Bootcamps cover a range of insulation measures, including spray foam insulation, internal and external wall insulation, cavity wall, and loft insulation. Both Bootcamps offer a Level 3 Award without specifying an awarding organisation and no previous knowledge is required for enrolment.

## Renewable Energy

A broader search for 'renewable' courses, covering various green energy sources, identified fifteen courses across six different local authority regions. The Bootcamps are a mix of accredited and non-accredited courses. The majority of Renewable Bootcamps are within the West Midlands Combined Authority area, featuring the Road 2 Renewables course, accredited by EAL.

## Retrofit

Retrofit Bootcamps focus on roles such as Retrofit Assessor, Retrofit Coordinator, Retrofit Advisor, Site Supervisor, and Domestic Energy Assessor. At the time of writing, forty-three courses were delivered in ten different local authority regions. Almost half of these courses offer a generic award without an awarding body, while the remaining Bootcamps are accredited by NOCN, City & Guilds, Highfield, ABBE, and AIM.

## Electric or Hybrid Vehicles

The Electric/Hybrid Vehicle Bootcamps being delivered nationally cover the design and installation of electrical vehicle charging points, electric and hybrid vehicle maintenance and repair, energy storage, and electric sustainability. Additionally, the research identified courses that were focused on commercial electrical skills and electrical installation. There are currently forty-seven Bootcamps

delivered by eleven local authority regions. Most of these Bootcamps are accredited by City & Guilds, IMI, LCL, or offer a generic award without an awarding body. Other accrediting organizations include BPEC and EAL.

### Recommendations and Observations

The report notes that, despite various sources for finding DfE Skills Bootcamps, no well-maintained and updated repository can be reliably referred to for national Skills Bootcamps. While the National Careers Service was used to review national DfE Skills Bootcamps delivery, it is recommended to check local authority websites for the most up-to-date information on Bootcamps being delivered in your area. Improvements to the National Careers Service website could include an option to view search results on a map and the ability to export results to Excel for easier analysis and filtering. In addition, the research recommends an option to filter the courses on the National Careers Service website by 'green skills' courses which would add further clarity on and awareness of the green skills courses available, and allow for improved monitoring and analysis.

## Highlights from Green Skills Engagements

The following section summarises key highlights from a Sustainability Training Survey we shared with businesses across our three LSIP local areas (Swindon and Wiltshire, Gloucestershire, and the West of England and North Somerset). Although the survey sample size was smaller than anticipated and may not fully represent regional business needs, further research is planned to gain more insight into the training needs of businesses and potential ways we can stimulate demand. Additionally, this analysis incorporates insights from businesses engaged during our broader green skills and LSIP research, providing a wider context.

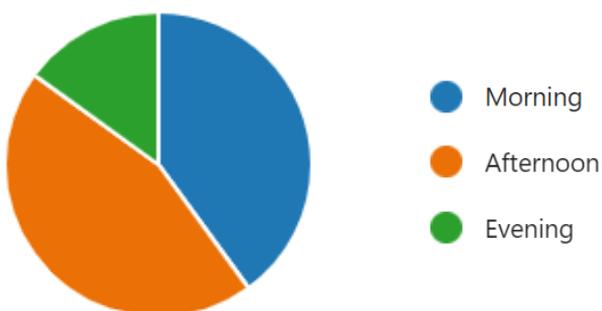
The majority of businesses that responded to the survey and had undertaken sustainability-related training in the past five years chose accredited training programs, followed by industry-certified training and then non-accredited training. Most respondents participated in short-term training, with the majority of courses under a week, followed by those lasting 1-4 weeks and 1-3 months, both receiving equal responses.

Very few respondents engaged in training for more than 6 months, indicating a preference for shorter courses when upskilling in sustainability-related areas. This is also reflected in our wider LSIP research which found that businesses overwhelmingly prefer training that is flexible, rapid, and modular where feasible.

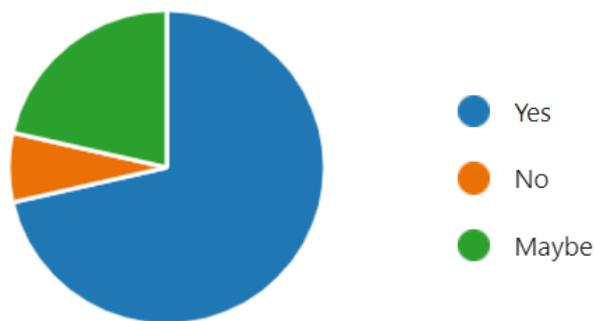
### Preferred mode of delivery:

1. In-person
2. Blended learning (online and in-person)
3. Online
4. Apprenticeships; External training providers (same number of votes)

### Preferred time for training sessions:



**We also asked businesses if they are considering offering additional green services or products:**



### Skills Shortages and Training Gaps

*One business representative expressed: “we have a massive shortage of skills in the renewable sector - colleges are still training in boilers and not heat pumps. There are few skilled electricians in the renewable industry and our costs for training are spiralling with courses too few and far between.”*

### Stimulating Demand

While training providers are eager to engage with renewable energy and environmental technology, they require assurance of sufficient demand. Unfortunately, demand for technical green skills courses, such as those on heat pumps, has been lower than anticipated in the local area. The mode of delivery significantly impacts demand, with shorter courses (typically courses under a week) often attracting more interest. Demand for renewable energy courses is also heavily impacted by government regulations and grants, which play a crucial role in influencing demand for training.

It is essential to highlight the value added to a business by undertaking the training. One of the businesses we engaged with highlighted how they had felt disincentivised to undertake training if they were not learning practical skills that could be immediately applied. Business owners also need to be convinced that they are proposing the right training for their staff that aligns with market demand and industry requirements. Many businesses are currently subcontracting specialists to fill skill gaps, such as in retrofit projects, rather than upskilling their own staff. This raises the question of how to help businesses see the long-term benefits of upskilling in sustainability-related areas rather than focusing on short-term solutions.

## Recommendations

To conclude, the research has identified the below recommendations to enhance the development of green skills in Swindon and Wiltshire.

### Improved Clarity and Monitoring

There is a need for greater clarity in defining green skills and the relevant green job pathways, at a regional and national level. In addition to improving the understanding of the green skills essential for a sustainable future - and raising awareness about how individuals can access and transition into sustainable job roles - this clarity will also enable better monitoring of green skills development and the provision of related training in the future.

A potential solution could involve enhancing tools like the Lightcast Career Coach to better identify green job roles and the qualifications associated with them. This would provide clearer guidance on what constitutes green skills and jobs while supporting learners looking to enter the green job market by adding further clarity on the various green pathways.

The research also highlights the need to continue attracting new entrants into the industries that will be core for the green transition, such as the industries discussed in this report. By encouraging new entrants to the workforce and raising awareness of the highly skilled roles within these industries, we can help stimulate demand for green skills training and ensure that we are developing the workforce needed for the green transition. Early years outreach within schools is one of the crucial ways we can ensure we are attracting new entrants to the industries.

In addition, the report emphasises the importance of ongoing monitoring and evaluation of green skills provision in the local area, as well as the wider support available to businesses. The report recommends further research into areas of need, based on the current gaps in green skills provision and forecasted demand for specific green roles.

### National Resources Mapping Green Skills Courses

Furthermore, various resources map green skills courses at a national level (including the National Careers Hub,<sup>71</sup> Gov.UK: Skills Bootcamp Training Providers).<sup>72</sup> However, the research was unable to find a consolidated and up-to-date repository for national green skills provision. Creating a comprehensive resource would enable easier access and monitoring of green training opportunities for learners and employers, streamlining the process of finding appropriate courses as well as enabling improved monitoring of the current green skills provision and areas of need. The research

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<sup>71</sup> National Careers Service [Careers advice - job profiles, information and resources | National Careers Service](#)

<sup>72</sup> Gov.UK Transparency data Skills Bootcamps training providers [Skills Bootcamps training providers - GOV.UK \(www.gov.uk\)](#)

also recommends that the National Careers Service website would be improved if there was an option to filter by 'green skills' courses, alongside the option to view search results on a map and the ability to export results to Excel. These improvements would allow for easier analysis and filtering.

### Consistency in Course Titles

Lastly, the research highlighted how some qualifications (for example, the Building Services Engineering for Construction T-Level) were listed under different names depending on the provider's website, which can cause confusion when searching for relevant qualifications. Clearer and more consistent labelling of courses would help alleviate this issue and make it easier for individuals to navigate the pathways available to them.

## Annex A: Swindon and Wiltshire Post-16 Technical Green Skills Provision

Provider	Name of Course	Length	Funded or Cost/Fee
Energy Development Services Ltd	Heat Pumps	2-4 day courses available	Cost/fee
GTEC Training (in collaboration with YourSpace)	Solar PV Training	3 days	Cost/fee
GTEC Training (in collaboration with YourSpace)	Battery Storage Training	2 days	Cost/fee
GRANT UK	Grant Aeron <sup>3</sup> Air Source Heat Pumps (ASHP)	2 days	Free
GRANT UK	Grant Hybrid Solutions	1 day	Free
GRANT UK	Grant Solar Thermal Systems	1 day	Free
GRANT UK	Numerous courses including: - Air Source Heat Pump - Hybrid Installer - Understanding Net Zero & the Heat & Building strategy - HVO & biofuels	1/2 days	Free
Wiltshire College and University Centre	Electric/Hybrid Vehicle Awareness	Part-time	Fully/partially funded

## Annex B: Swindon and Wiltshire Training Provider Details

Provider Name (A-Z)	Website	Contact Details
Energy Development Services Ltd	<a href="#">Home   My Site 1</a> ( <a href="http://energydevelopmentsservice.com">energydevelopmentsservice.com</a> )	<a href="mailto:Team@energydevelopmentsservice.com">Team@energydevelopmentsservice.com</a>
GRANT UK	<a href="#">Award Winning HVO compatible boilers, air source heat pumps &amp; renewable heating from Grant UK</a>	<a href="mailto:info@grantuk.com">info@grantuk.com</a>
GTEC Training (in collaboration with YourSpace)	<a href="#">YourSpace, Wiltshire   GTEC</a>	<a href="mailto:info@gtec.co.uk">info@gtec.co.uk</a>
New College Swindon	<a href="#">New College Swindon - Innovating Education Since 1843</a>	<a href="#">Contact Us - New College Swindon</a>
Swindon and Wiltshire Institute of Technology	<a href="#">Swindon and Wiltshire Institute of Technology - (<a href="http://sawiot.ac.uk">sawiot.ac.uk</a>)</a>	<a href="#">Contact Us - Swindon and Wiltshire Institute of Technology (<a href="http://sawiot.ac.uk">sawiot.ac.uk</a>)</a>
UTC Swindon	<a href="#">UTC Swindon  </a>	<a href="#">Contact   UTC Swindon</a>
Wiltshire College & University Centre	<a href="#">Wiltshire College &amp; University Centre   Wiltshire College &amp; University Centre</a>	<a href="#">Contact Us   Wiltshire College &amp; University Centre</a>

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12. Institute for Apprenticeships and Technical Education, *Commercial Thermal Insulation Operative* ([Commercial thermal insulation operative / Institute for Apprenticeships and Technical Education](#))
13. Institute for Apprenticeships and Technical Education, *Industrial Thermal Insulation Technician* ([Industrial thermal insulation technician / Institute for Apprenticeships and Technical Education](#))
14. According to Gov.UK, *Commercial thermal insulation operative (level 2)* ([Commercial thermal insulation operative \(level 2\) - apprenticeship training course \(education.gov.uk\)](#))
15. Gov.UK, *Industrial thermal insulation technician (level 3)* ([Industrial thermal insulation technician \(level 3\) - apprenticeship training course \(education.gov.uk\)](#)).

16. City & Guilds, *Insulation and Building Treatments (5931)* ([Insulation and Building Treatments qualifications and training courses | City & Guilds \(cityandguilds.com\)](#))
17. Green Construction Advisory Panel, *Courses: Insulation* ([Insulation – Green Construction Advisory Panel \(thegcap.co.uk\)](#))
18. National Careers Service, *Heat pump engineer* ([nationalcareers.service.gov.uk/job-profiles/heat-pump-engineer](#))
19. Green Careers Hub, *Heat Pump Installer* ([Heat Pump Installer - Green Careers Hub](#))
20. HM Government, *Find your Nearest T Level* ([Find a T Level | T Levels](#))
21. New College Swindon, *Technical Courses* ([Technical - New College Swindon](#))
22. Wiltshire College & University Centre, *Our Courses* ([Study | Wiltshire College & University Centre](#))
23. Wiltshire College & University Centre, *Level 3 Plumbing & Domestic Heating Technician* ([Level 3 Plumbing & Domestic Heating Technician | Wiltshire College & University Centre](#))
24. New College Swindon, *Plumbing and Domestic Heating Technician Level 3 Apprenticeship* ([Plumbing and Domestic Heating Technician Level 3 Apprenticeship \(newcollege.ac.uk\)](#))
25. Institute for Apprenticeships and Technical Education, *Low Carbon Heating Technician* ([Low carbon heating technician / Institute for Apprenticeships and Technical Education](#))
26. South West Construction Academy, *Low Carbon Heating Technician* ([Low Carbon Heating technician L3 Apprenticeship | SWCA \(swconstructionacademy.co.uk\)](#))
27. South West Retrofit Hub, *Retrofit Skills Report* (April 2023) ([South west net zero hub retrofit skills report \(swnetzerohub.org.uk\)](#))
28. Go Construct, *Solar Panel Installer* ([Solar Panel Installer Job Description & Duties | Go Construct](#))
29. New College Swindon, *Electrical Installation Level 2 Diploma* ([Electrical Installation Level 2 Diploma \(newcollege.ac.uk\)](#))
30. Wiltshire College & University Centre, *Installation Electrician/Maintenance Electrician Apprenticeship (Level 3)* ([Installation Electrician/Maintenance Electrician Apprenticeship \(Level 3\) | Wiltshire College & University Centre](#))
31. New College, *Electrical Installation Apprenticeship Level 3* ([Electrical Installation Apprenticeship Level 3 \(newcollege.ac.uk\)](#))
32. Gov.UK, *Local skills improvement plans (LSIPs) and local skills improvement fund (LSIF)* ([Local skills improvement plans \(LSIPs\) and local skills improvement fund \(LSIF\) - GOV.UK \(www.gov.uk\)](#))

33. Wiltshire College & University Centre, *WCUC to launch exciting green construction and digitalisation projects through Local Skills Improvement Fund* (28<sup>th</sup> November 2023) ([WCUC to launch exciting green construction and digitalisation projects through... | Wiltshire College & University Centre](#))
34. Jessica Moriarty, *Lackham House to be refurbished by Wiltshire College and University* (BBC News, 10<sup>th</sup> April 2024) ([Lackham House to be refurbished by Wiltshire College and University - BBC News](#))
35. ONS Low carbon and renewable energy economy, UK (2022) [Low carbon and renewable energy economy, UK - Office for National Statistics \(ons.gov.uk\)](#)
36. SWLEP *Swindon and Wiltshire Local Economic Assessment* (2022) [Swindon and Wiltshire Local Economic Assessment \(swlep.co.uk\)](#)
37. Anthesis *Wiltshire Carbon Emissions Baselines and Reduction Pathways* (2022) [PowerPoint Presentation \(wiltshire.gov.uk\)](#)
38. SWLEP, *Research, Design and Manufacturing of New Energy Vehicles in Swindon and Wiltshire* (2021) ([Layout 1 \(swlep.co.uk\)](#))
39. South London, *Green Job Profile: EV Installer* ([Green Job Profiles | EV Installer \(careershub-south.london\)](#))
40. New College Swindon, *Motor Vehicle* ([Motor Vehicle Level 1, 2 & 3 Courses | Swindon, Wiltshire \(newcollege.ac.uk\)](#))
41. Wiltshire College & University Centre, *Automotive Maintenance Courses* ([Automotive Maintenance | Wiltshire College & University Centre](#))
42. Wiltshire College & University Centre, *IMI Level 2 Autocare Technician* ([IMI Level 2 Autocare Technician | Wiltshire College & University Centre](#))
43. Wiltshire College & University Centre, *Level 1 Award in Electric/Hybrid Vehicle Awareness* ([Level 1 Award in Electric/Hybrid Vehicle Awareness | Wiltshire College & University Centre](#))
44. Swindon and Wiltshire Institute of Technology, *Engineering & Construction* ([Engineering & Construction - Swindon and Wiltshire Institute of Technology \(sawiot.ac.uk\)](#))
45. Wiltshire College & University Centre, *Our Courses* ([Study | Wiltshire College & University Centre](#))
46. New College Swindon, *Engineering* ([Engineering Level 3 Diploma & CTEC Courses | Swindon, Wilts \(newcollege.ac.uk\)](#))
47. UTC Swindon, *Year 12 & 13 Study* ([Year 12 & 13 Study | UTC Swindon](#))
48. Swindon and Wiltshire Institute of Technology, *Civil Engineering Apprenticeship Level 3* ([Civil Engineering Apprenticeship Level 3 \(sawiot.ac.uk\)](#))

49. Swindon and Wiltshire Institute of Technology, *Civil Engineering HNC HTQ* ([Civil Engineering HNC HTQ \(sawiot.ac.uk\)](http://www.sawiot.ac.uk))
50. Wiltshire College & University Centre, *HND Engineering (General) (part-time)* ([HND Engineering \(General\) \(part-time\) | Wiltshire College & University Centre](#))
51. Wiltshire College & University Centre, *HND Engineering (Electronic / Electrical) (part-time)* ([HND Engineering \(Electronic / Electrical\) \(part-time\) | Wiltshire College & University Centre](#))
52. South West Agri-tech, *Swindon and Wiltshire* (<https://www.southwestagri-tech.org.uk/research/swindon-and-wiltshire/>)
53. Wiltshire College & University Centre, *T Level in Agriculture, Environmental and Animal Care - Land-Based Engineering* ([T Level in Agriculture, Environmental and Animal Care - Land-Based Engineering | Wiltshire College & University Centre](#))
54. Wiltshire College & University Centre, *Crop Technician Apprenticeship (Level 3)* ([Crop Technician Apprenticeship \(Level 3\) | Wiltshire College & University Centre](#))
55. Apricot Centre, *Skills Bootcamp in Regenerative Land-Based Systems* ([Level 2 Skills Bootcamp: Regenerative Land-Based Systems | The Apricot Centre - cultivating sustainability](#))
56. New Anglia, *Skills Bootcamps* ([Skills Bootcamps - New Anglia](#))
57. National Careers Service, *Find a Course* ([Results | Find a course | National Careers Service](#))

The majority of this research was completed June 2024-August 2024. If you would like to discuss the Swindon and Wiltshire LSIP Green Skills Provision Report or our findings in more detail, please contact Chloe Barratt, Project Coordinator and Green Skills Lead on the LSIP [Chloe.barratt@businesswest.co.uk](mailto:Chloe.barratt@businesswest.co.uk).