



Llywodraeth Cymru
Welsh Government

Annex 1

Stronger, Fairer, Greener Wales: Net Zero Skills Action Plan

Skills Emission Sector Overview and Cross Cutting Themes



Introduction

The Net Zero Skills Action Plan (the Plan) sets out the Government's commitment to net zero skills by investing in people, skills and talent as crucial drivers towards a stronger, fairer, greener economy.

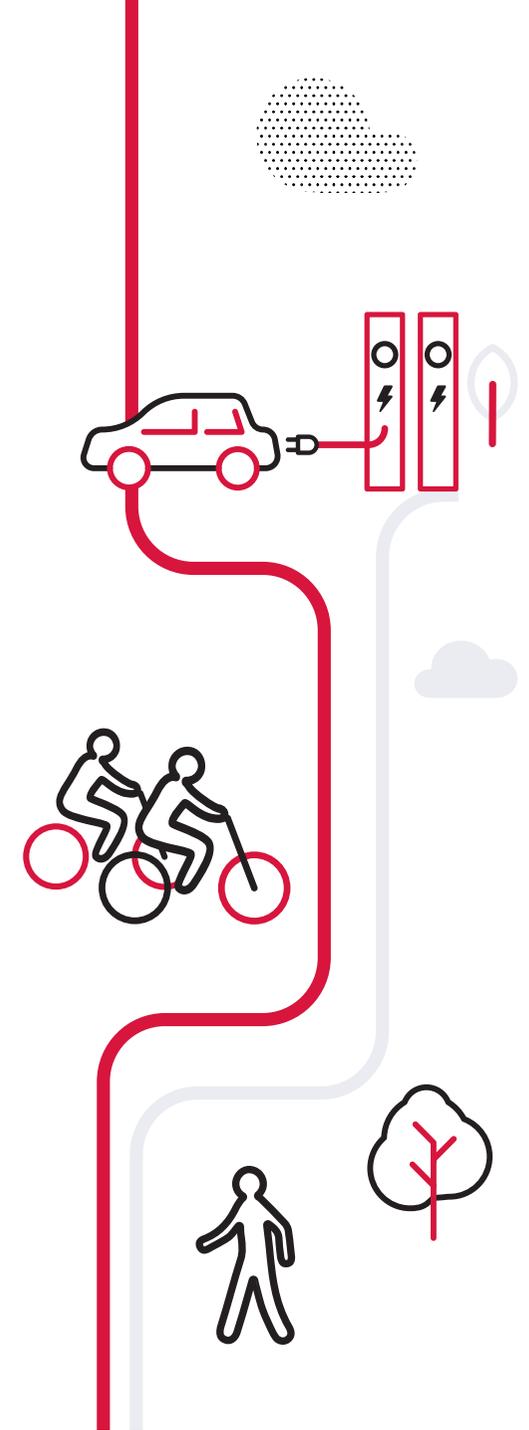
In developing the Plan, research and evidence was commissioned from the Wales Centre for Public Policy (WCPP) to determine the current net zero skills position across Wales on each of the 8 emission sectors, future skills needs and gaps to meet the changing demands on the workforce for the transition to net zero. Welsh Government has also undertaken extensive engagement with internal and external stakeholders to discuss the net zero skills landscape across Wales.

This Annex provides a high level summary by emission sector based on the outcome of the WCPP Report (Net zero skills: Insights and evidence from emissions sectors in Wales¹) and the wider sector research, evidence and engagement.

Emission Sector Skills Consultation and Next Steps

The Plan shows that there is limited detailed information on the overall economy wide skills landscape (including qualifications requirements) across Wales. To add to this the direction of travel to meet the net zero skills commitments is further ahead in some emission sectors than others. Therefore, further knowledge and information is required from across all sectors in Wales to develop a roadmap setting out the current skills position for each sector in Wales, what skills are needed in the short and longer term and how we will achieve. This will include dependencies between each of the sectors and their supply chains.

The Net Zero Skills Action Plan commits to undertake a public consultation on the sector specific skills requirements in the Spring to gain an understanding of the current skills position for each emission sector in Wales and what skills are needed in the short, medium and long term. The outcome of the consultation will support the development of a skills roadmap for each emission sector.



1. <https://www.wcpp.org.uk/publication/net-zero-skills-insights-and-evidence-from-emissions-sectors-in-wales>

Emissions Sectors Overview



Electricity and Heat Generation

What's needed

- › Decarbonisation/Energy Transition pathways to inform skills needs.
- › Supply and Demand balance.
- › Mobilising skills in the supply chain.
- › Harnessing Transferable skills opportunities.

Workforce Need:

National Grid estimate that the energy sector in Wales will need to recruit for around **25,000** jobs by **2050**.

Around **65%** would be new roles (based on the split at the UK level).



Residential Buildings

What's needed

- › Decarbonisation skills including wide ranging retrofit elements. including required competencies.
- › Assessors and surveyors, designers, energy efficiency and heat system specialisms.
- › Modern Methods of Construction opportunities.
- › Stimulating skills demand in SMEs.
- › New technologies require adaption of existing skills.

Workforce Need:

12,000 more net zero full time workforce



Demographic Challenge:

UK figures show

87% of the workforce are male, and only **5%** are Black, Asian and Minority ethnic communities. **35%** workers are aged **over 50**.



Transport

What's needed

- › Clarity on future mix of technologies required to decarbonise.
- › Significant changes to skills and employment.
- › Retraining opportunities.
- › Recruit new Specialist skills in maintenance and engineering.
- › Active Travel/Public Transport skills opportunities in design and management.

Road

Uncertainty around changing roles as the sector moves to cleaner energy.

Bus

Need to explore opportunities for skills and growth from investment opportunities aimed at decarbonising fleets.

Rail

Much clearer path to net zero; technology is informing skills needs. Reliance on short-fixes term employment/not achieving fair and permanent work opportunities.

Active Travel

New skills and opportunities.

Demographic Challenge:

Across the UK **84%** of the workforce is **male**.  **28%** of workers are **51+** and there is a high rate of unfilled vacancies.



Public Sector

What's needed

- › Range of decarbonisation skills sets.
- › Promote and share good practice/strong leaderships role.
- › In-house expertise approaches to be developed to achieve consistent approach and deliver best practice.



Industry and Business

What's needed

- > Clarity on options for industry to decarbonise to inform the skills needs for the future.
- > New technologies and equipment/processes need to be clearer to provide the confidence needed to drive investment in skills.



Higher Education plays a larger role in heavy industry as **65%** of the technical workforce are educated to degree level.



Around **40%** hold a postgraduate degree (UK Steel, 2022).



Small and Medium enterprises (SMEs) make up **99%** of businesses in Wales.



Manufacturing accounts for **10%** of Welsh jobs (2022) within just under **6,000** companies



Land Use, Land Use Change and Forestry (LULUCF)

What's needed

- > Significant increase in workers.
- > Strengthen FE content to meet industry required skills.
- > Increased provision in Forestry qualifications.
- > More qualifications in environmental restoration.
- > Raising opportunities to school age population.
- > Strengthen nature based skills opportunities.
- > Support biodiversity actions.

Workforce Need:



The forestry workforce required in **2025** is projected to be a **62%** increase on **2019** figures.

This increase relative to the **2019** workforce is projected to decline to **43%** by **2030**. There is also a need to replace around **10%** and **20%** of the **2019** workforce by **2025** and **2030** due to retirement.



Agriculture

What's needed

- > Future land use skills and links to LULUCF skills.
- > Embed net zero skills and carbon literacy in current FE/HE qualifications.
- > Management and Leadership skills.
- > Carbon auditing skills.

Demographic Challenge:



85% of farm holders are male and the median age across the UK is **59**.



Waste Management

What's needed

- > Minimal areas of reskills.
- > Increased need for consumer engagement and behaviour change roles/promotion of circular economy.
- > Increased awareness in the value of training.
- > Beyond recycling skills developed for all sectors.

Demographic Challenge:

90% of welsh waste workforce is male and **95%** is white.

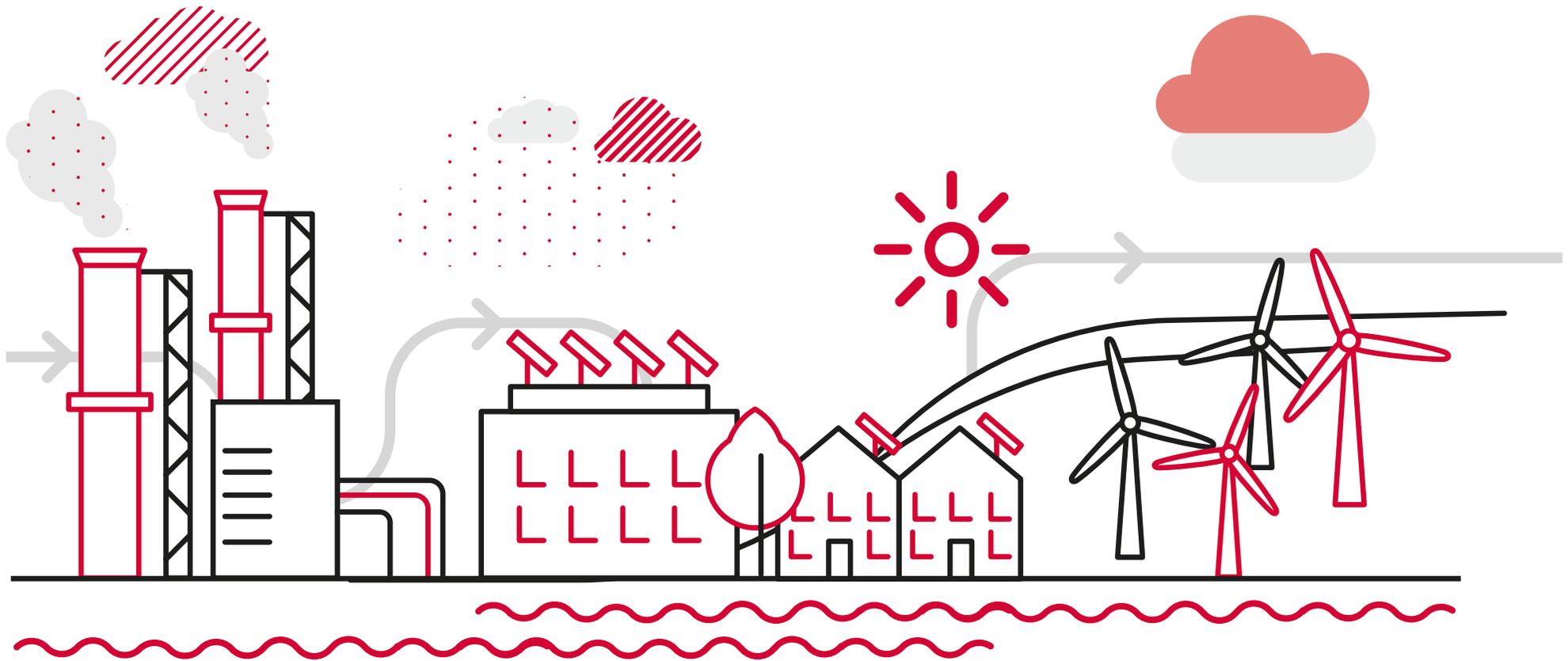




Electricity and Heat Generation

About

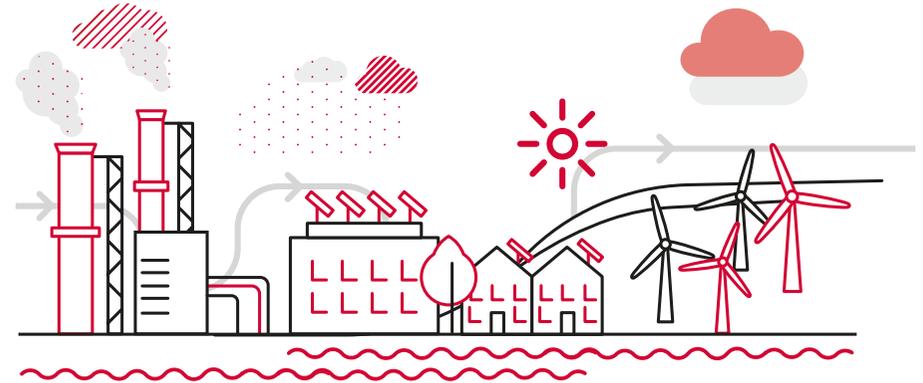
The electricity and heat generation sector in Wales covers the production of electricity from fossil fuel, low carbon and renewable generation. It also includes the generation and supply of heat, such as through heat networks.



Sector summary:

Electricity and Heat Generation

- Production of Electricity in; Fossil Fuel, Low Carbon, Renewable Sources.
- Generation and supply of Heat, i.e. Heat Networks.



- **Uncertainty around the pathway** to decarbonisation, i.e. future mix of **electricity and heat generation sources/supply and demand**.
- Nuclear will contribute to electricity and heat generation, further support for **skills development** will be required as project certainty emerges at Trawsfynydd and Wylfa.
- Viable Pathways to Energy Transition will involve **significant changes to skills** needs and employment.
- **4 Strategic Challenges:**
 1. losing existing talent
 2. retention of graduates
 3. encouraging young people into STEM
 4. lack of Diversity.
- Short-medium term skills are present.
- Issue: **Labour shortage**.
- Challenge: **Mobilising skills in the supply chain**.
- High level of **transferable skills**.

55% of Wales power needs are met from renewable sources.



Target:



- ↓ Existing oil and gas roles will **decline**.
- ↑ **Increase** in renewables and low-carbon energy sources.
- ↑ **Increase** in roles such as:
 - production – installation and maintenance of renewable energy (offshore wind)
 - production and storage of Hydrogen
 - grid Engineers.

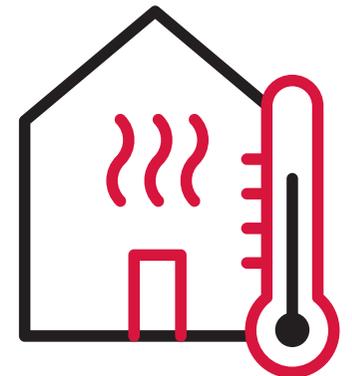
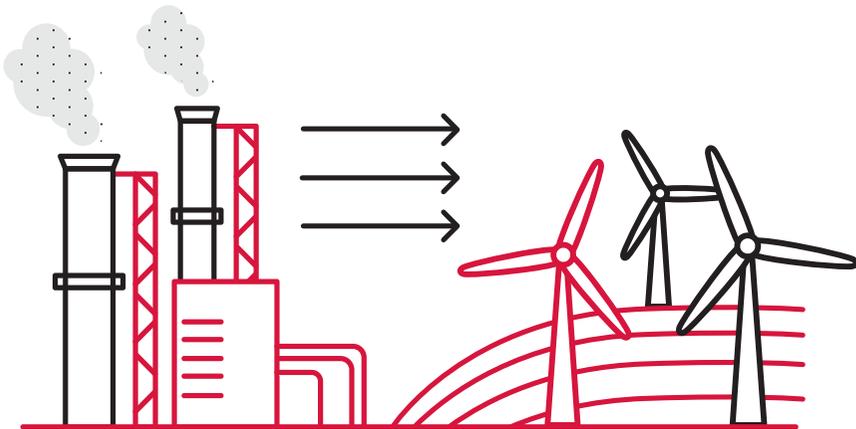
National Grid estimate that the energy sector in Wales will need to recruit for around **25,000** jobs by **2050**.

Around **65%** would be new roles (based on the split at the UK level).

Going Forward

Outlined below are some of the headline areas that have been identified during the development of the Plan. The Sector consultation will target questions and detailed actions that will create the Sector Roadmaps for skills. The aim is to shape the right approach to take forward skills in Wales and deliver shared agreed actions.

- Scope a pilot to identify and support the development of skills within the energy sector through existing projects, infrastructure projects and potential new projects applying a new renewed approach to skills development.
- Support the development of the Heat Strategy for Wales in 2023 to ensure skills are fully considered. The Strategy was a commitment in the Net Zero Wales Plan and will set out how we intend to take forward the decarbonisation of heating and cooling in domestic and non-domestic buildings as well as the use of heat in industrial processes, and the use of waste heat.
- Support greater industry collaboration to maximise supply chain opportunities in Wales, responding to the Renewable Energy Deep Dive's recommendation on skills development.





Transport

About

Emissions from the transport sector include those from cars, trucks, buses, taxis and railways within Wales along with our share of emissions from international aviation and international shipping.



Sector summary:

Transport

- Surface transport sector covers emissions related to Road and Rail.
- Currently the largest carbon-emitting sector of the UK economy, accounting for 22% of greenhouse gas emissions.



- **Varying levels of certainty** about the future mix of technologies required to decarbonise the different forms of surface transport.
- Pathways to net zero will involve **significant changes to skills and employment**.
- Need to **retrain** existing staff and recruit new staff.
- Increased demand for **specialist skills** in maintenance and engineering.
- New and higher numbers of roles in **designing and managing active travel** and public transport systems.

Road

- **Uncertainty around future roles** of electrification and hydrogen fuel cells – what is the scale of change required to support this?
- **Significant increase** in electricians/electric vehicle skills including software engineers will be needed.
- **Skills in repair and maintenance** in road transport could be developed into servicing and maintenance of new powertrains.
- **Bus Companies** already reporting less demand for staff working in maintenance and repair as they transition and invest in battery vehicles. Immediate need to explore opportunities for skills and growth from investment opportunities aimed at decarbonisation of the bus fleet.

Rail

- **Much clearer path** to net zero.
- **Technology** is already proven and in existence.
- **Wide range** of job roles available within the sector.
- **Challenge** is replacing retiring workers or those leaving the industry.
- Heavy reliance on **short fixed-term contracts** but opportunities will exist to obtain fair and permanent work (heavily reliant on UK gov direction on infrastructure projects).

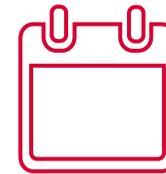
Active Travel

- **New skills** are required in carbon assessment, communication, behaviour change, design and public engagement.

Potential workforce growth from

↑ **170,000** to **220,000**

employed in automotive and electric vehicle battery manufacture by **2040** (UK wide).



Road

Opportunities for job creation in automotive and electric vehicle battery manufacture if supported by investment in Wales.



Predicted **5,000** jobs required to offset a retiring workforce by **2031**.

Decarbonising the bus fleet in Wales is a Programme for Government commitment.

Rail

600 jobs directly created in Wales related to decarbonisation of the railway.



Jobs are likely to require **Level 2** or **Level 5** – Apprenticeships are considered a **key route**.

Demographic Stats

Across the UK **84%** of the workforce is male.

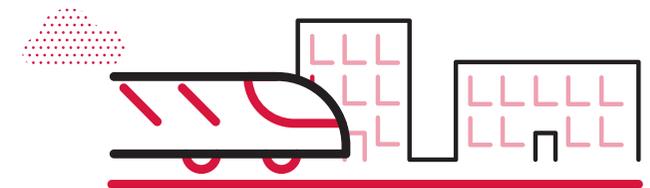
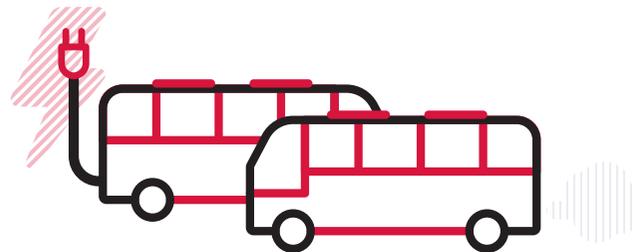
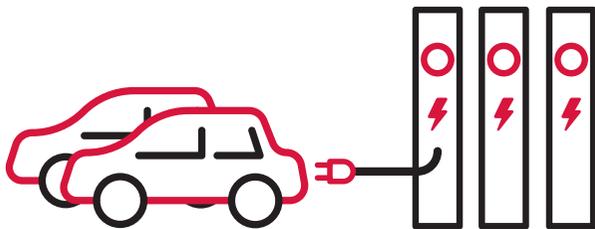


28% of workers are **51+** and there is a high rate of unfilled vacancies.

Going Forward

Outlined below are some of the headline areas that have been identified during the development of the Plan. The Sector consultation will target questions and detailed actions that will create the Sector Roadmaps for skills. The aim is to shape the right approach to take forward skills in Wales and deliver shared agreed actions.

- › Support the development of an appropriate skills offer in Wales to support the operation and maintenance of electric buses, working with the Decarbonising the Bus Fleet in Wales Project to support a collaborative approach with operators and owners and Further Education and Higher Education institutions.
- › Work with the sector to gain a full understanding of the increased demand for specialist skills in maintenance, engineering and impact of decarbonisation and develop actions and solutions to address these.





Residential Buildings

About

The residential buildings sector covers emissions from energy usage in homes, as well as work to reduce embodied carbon in constructing and retrofitting residential properties. This chapter covers the residential sector (all of Wales's housing including owner occupied, privately and socially rented homes).



Sector summary:

Residential Buildings

- Residential buildings covers the emissions from energy use in home.
- Construction of buildings to reduce carbon and retrofitting residential properties.



- **Skills** needs primarily revolve around the broader need to decarbonise housing, including retrofitting current housing stock to improve energy efficiency with more efficient heating systems; as well as building new with significantly low emissions.
- **Modern methods of construction** with off-sites manufacturing offer the potential for higher quality and more efficient homes in Wales.
- Demand for **pre and post-construction skills** including surveying, design, energy assessment and retrofit coordination.
- Shortage of **qualified Heat pump** engineers. **50,000** are needed to meet UK Government targets.
- Small and Medium SME's have little appetite to **retrain** in new technologies.
- New technologies require adaptations of existing **skills**.

Net Zero Wales calls for

↓ **80%**

reduction of carbon emissions in Welsh homes by **2050**.



28% of homes in Wales are constructed with solid walls.



82% are uninsulated.



32% have cavity walls.

To reach Net Zero

12,000

full time workers will be required in Wales.



Demographic stats

UK figures show that

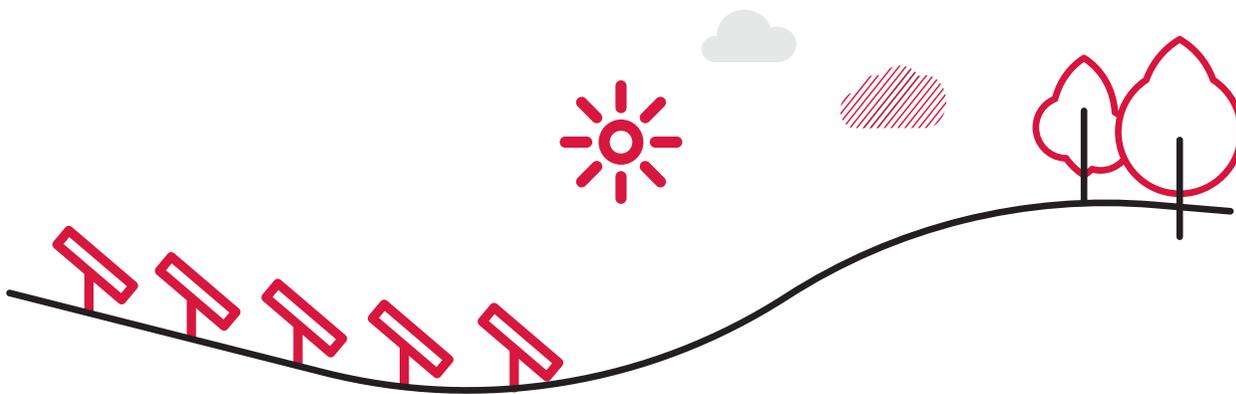
87% of the workforce are male, and only **5%** are Black, Asian and Minority ethnic communities.

35% workers are aged **over 50**.

Going Forward

Outlined below are some of the headline areas that have been identified during the development of the Plan. The Sector consultation will target questions and detailed actions that will create the Sector Roadmaps for skills. The aim is to shape the right approach to take forward skills in Wales and deliver shared agreed actions.

- Ensure the Welsh Government Energy Service continues to provide vocational training to increase the skill and knowledge base of public sector and community organisation.
- Work with the Local Government Climate Strategy Panel and Welsh Local Government Association (WLGA) to ensure the outcomes and evidence of this Plan will feed into their net zero skills planning and emphasise net zero skills being considered when developing strategies and policies. This includes:
 - Local Government Climate Strategy panel to carry out a deep dive into the climate skills gaps/needs across local authorities, to identify issues and shape support.
 - WLGA review of local authority climate change plans in early 2023 to include analysis of skills gaps/needs.

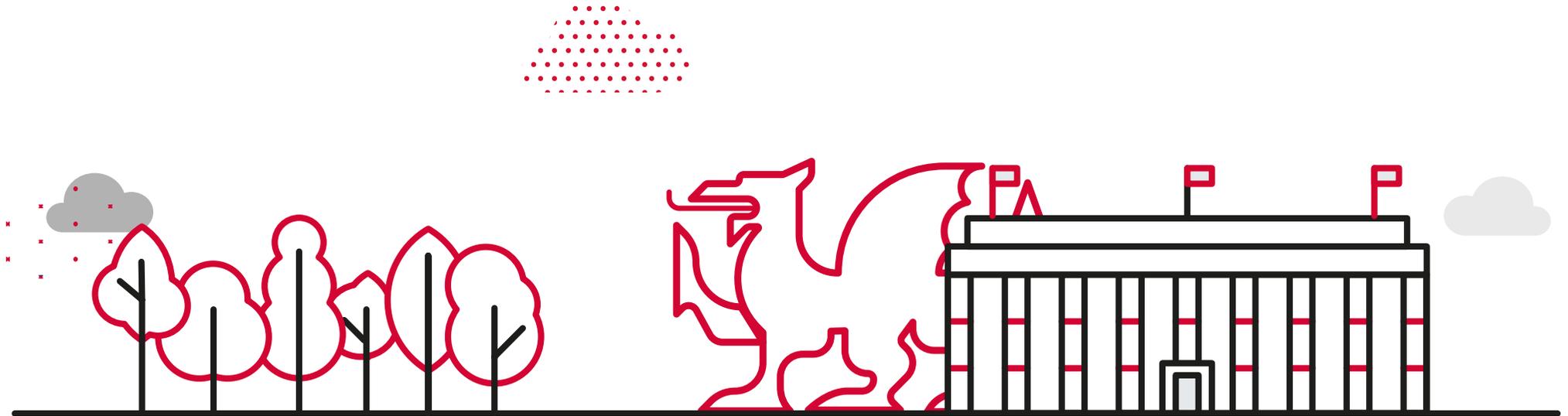




Public Sector

About

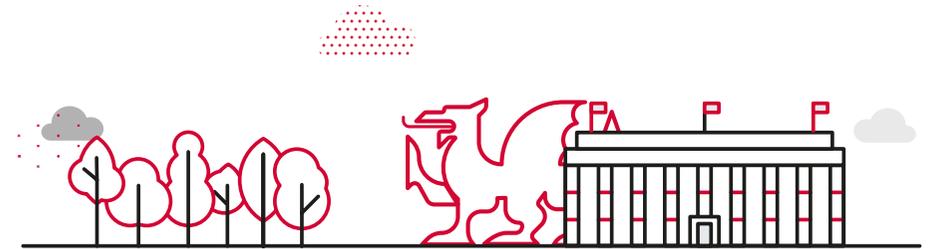
The public sector has a role in not only removing carbon from its own estate but within their span of leadership influence and operations. The importance of the public sector cuts across the other emissions sectors in support of the drive to change.



Sector summary:

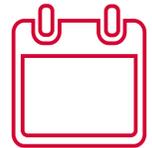
Public Sector

- Emissions from this sector is associated buildings and operations across the Welsh Public service.
- Skills challenges are similar to those in Residential Buildings and Transport as well as other sectors.
- The sector has a key leadership role in promoting decarbonisation and influence over other organisations.



- Range of **decarbonisation skills** sets required.
- Significant focus on **climate leaderships, procurement and supply chain** i.e. every day decision making.
- Developing **in-house expertise programmes** to achieve consistent approach and best practice.

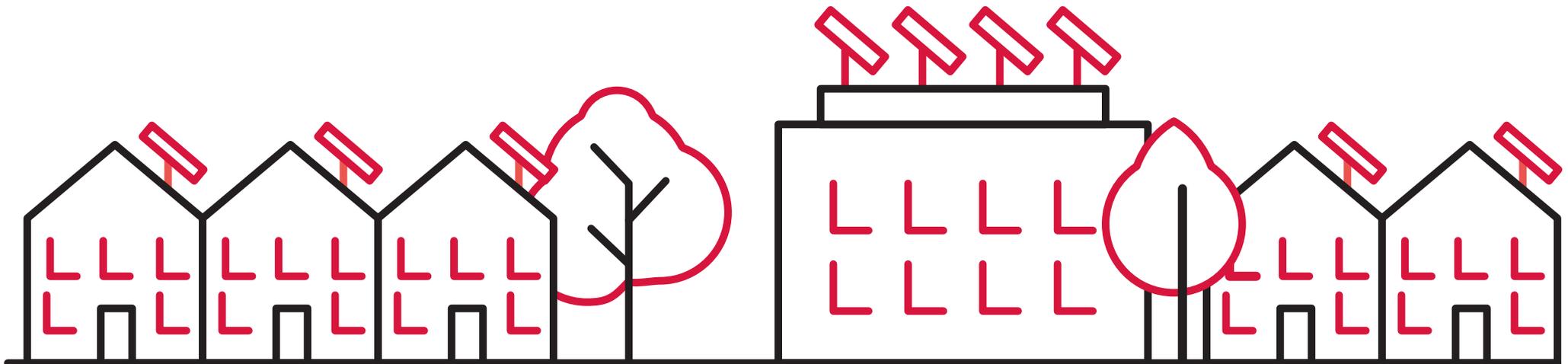
Advanced ambition of net zero emissions by **2030**.



Going Forward

Outlined below are some of the headline areas that have been identified during the development of the Plan. The Sector consultation will target questions and detailed actions that will create the Sector Roadmaps for skills. The aim is to shape the right approach to take forward skills in Wales and deliver shared agreed actions.

- › Support the development of our skills offer to meet the need of our retrofit programmes, such as the Optimise Retrofit and Warm Homes programmes, which are a whole house, pragmatic, approach to decarbonising existing homes, through the Skills Advisory Group and wider stakeholder engagement.
- › A clear and joined-up strategy for decarbonising homes, to encourage the development of Welsh small and medium business supply chains, strengthening our understanding of the skills challenges and requirements, increased opportunity for green jobs and provision and promote take-up of training.





Industry and Business

About

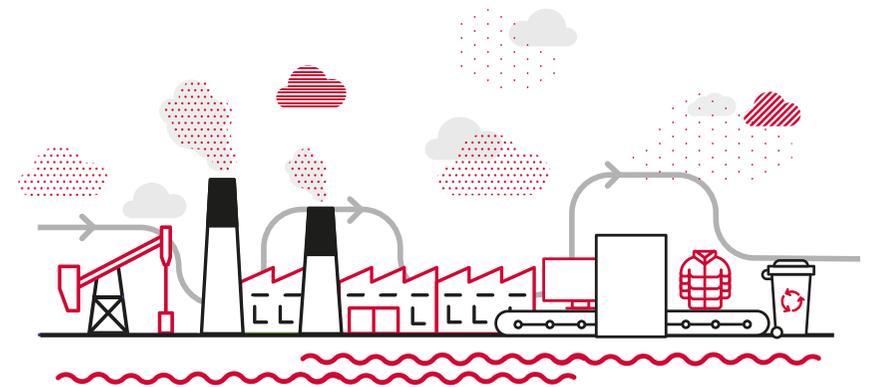
The industry and business sector includes manufacturing, construction, operation of machinery, food processing and the extraction and production of fossil fuels. The Sector also covers emissions arising from industrial and commercial buildings.



Sector summary:

Industry and Business

- Industry and business accounted for 38% of Welsh emissions in 2019.
- Main emitters (2019) within sector Iron and Steel production (37%) and petroleum refining (15%).
- Many key Welsh economic sectors fall within the industry and business emissions sector and there is a substantial diversity of skills needs and gaps.
- Scope of the sector: Manufacturing, construction, operation of machinery, food processing and the extraction and production of fossil fuels.



Heavy Industry and Steel

- Uncertainty on electrification, hydrogen power and Carbon Capture, Utilisation, Storage and Shipping solutions and how these will work for industry to **decarbonise**.
- Reluctant to invest in **skills** until certainty in the technology that will be used.
- **Upskilling** required in education sector to deliver qualifications relating to new technologies.
- Need for **Transversals skills** in project management. Environmental awareness and digital skills.
- **Business Leaders** will need to be equipped with the capabilities to manage the transition to net zero.
- Steel is critical to our future **net-zero economy**, with regard to manufacture of wind turbines, electric vehicles and in energy-efficient housing’.

Food and Drink sector and Small Business

- Net Zero awareness but not a priority with **current challenges** of cost pressures.
- **Transversal** skills needed.
- **Uncertainty on skills needs** until new technologies/equipment proven.

Manufacturing

- 2021 launched Manufacturing Action Plan to future proof the sector. Skills and developing the right pipeline of high calibre and diverse talent and overcome barriers faced by underrepresented groups will be key.

Challenges facing industry

- Price of energy and raw materials.
- Labour shortages.
- Carbon Pricing.



Higher Education plays a larger role in heavy industry as **65%** of the technical workforce are educated to degree level.



Around **40%** hold a postgraduate degree (UK Steel, 2022).



Small and Medium enterprises (SMEs) make up **99%** of businesses in Wales.

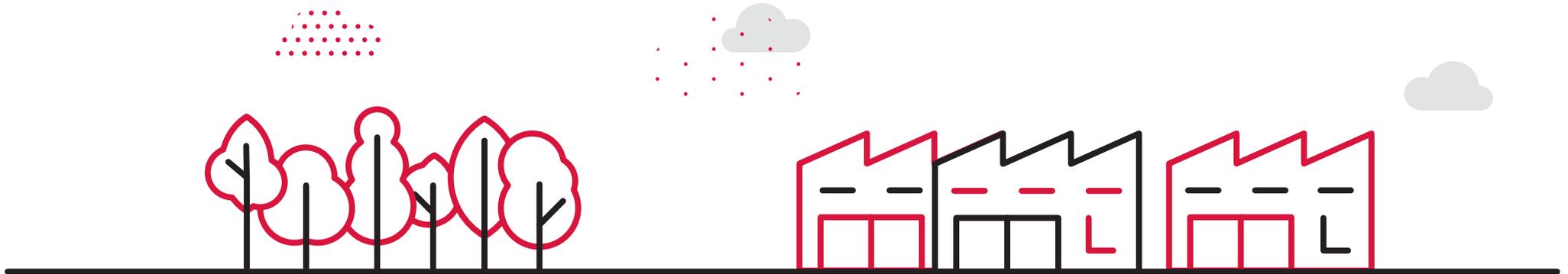


Manufacturing accounts for **10%** of Welsh jobs (2022) within just under **6,000** companies.

Going Forward

Outlined below are some of the headline areas that have been identified during the development of the Plan. The Sector consultation will target questions and detailed actions that will create the Sector Roadmaps for skills. The aim is to shape the right approach to take forward skills in Wales and deliver shared agreed actions.

- › Work with key regional stakeholders and industry to build capacity in the workforce to meet the skills requirements of the future, particularly to assist in the challenge of new industrial processes and industries.
- › Work directly with business owners and industry networks to explore skills requirements to aid industrial decarbonisation opportunities.
- › Work with all our partners to ensure the Manufacturing Action Plan reflects the skills and priorities of our manufacturing industry and responds to the challenges they face, with regards skills. High Value Manufacturing is about creating well paid jobs, safe communities, carbon neutral industries and a thriving Welsh culture. This in turn has a positive social, economic and environmental impact on the well-being of the citizens of Wales.





Agriculture

About

The agriculture sector covers soil, livestock, and waste and manure management.



Sector summary:

Agriculture

- Agricultural emissions are from enteric fermentation and manure from livestock, fertilisers, fuel for agricultural machinery and soil.
- Cattle and Sheep farming is the most common type in Wales.



- **Future skills base** interacts heavily with skills needs in LULUCF.
- Skills needed for **sustainable land management** and **carbon literacy**.
- Skills required in **soil and nutrient management**.
- **Agricultural qualifications** in further education and higher education need to include Net Zero and carbon literacy.
- Skills gaps in **Management and Leadership**.
- **Carbon auditing and assessment skills** will be needed by farmers to manage decarbonising their land.
- Future skills links with Land Use and Forestry as proposed subsidies for **afforestation and biodiversity**.

Demographics Stats



85% of farm holders are male.

The median age across the UK is **59**.

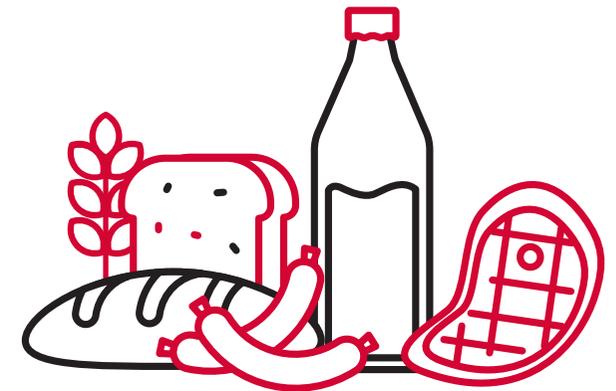
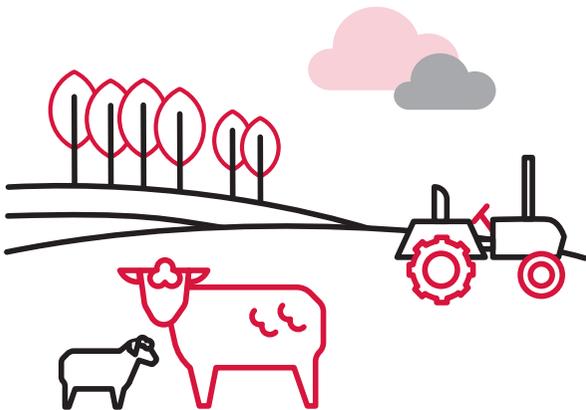
Going Forward

Outlined below are some of the headline areas that have been identified during the development of the Plan. The Sector consultation will target questions and detailed actions that will create the Sector Roadmaps for skills. The aim is to shape the right approach to take forward skills in Wales and deliver shared agreed actions.

- Work with the Skills system, as outlined in Skills System Opportunities Chapter, to ensure agricultural courses generate an understanding of net zero and reflect the challenges facing the sector.

- We have made a commitment that future farm support should reward farmers who are actively managing the land to deliver environmental outcomes alongside the sustainable production of food. The proposed Sustainable Farming Scheme, which will begin in 2025, signifies a major change and will be key in supporting Welsh farmers to play a leading role in delivering a more resilient environment and a more resilient rural economy. Work is underway to design a series of projects to support farmers entry into the Scheme, providing

them with the knowledge, skills equipment and technology to maximise their ability to perform Scheme actions. This will include a refocused Farming Connect service to build farmers readiness for the scheme. The refocused programme will include technical and advisory support, farmer to farmer knowledge sharing and market insight.

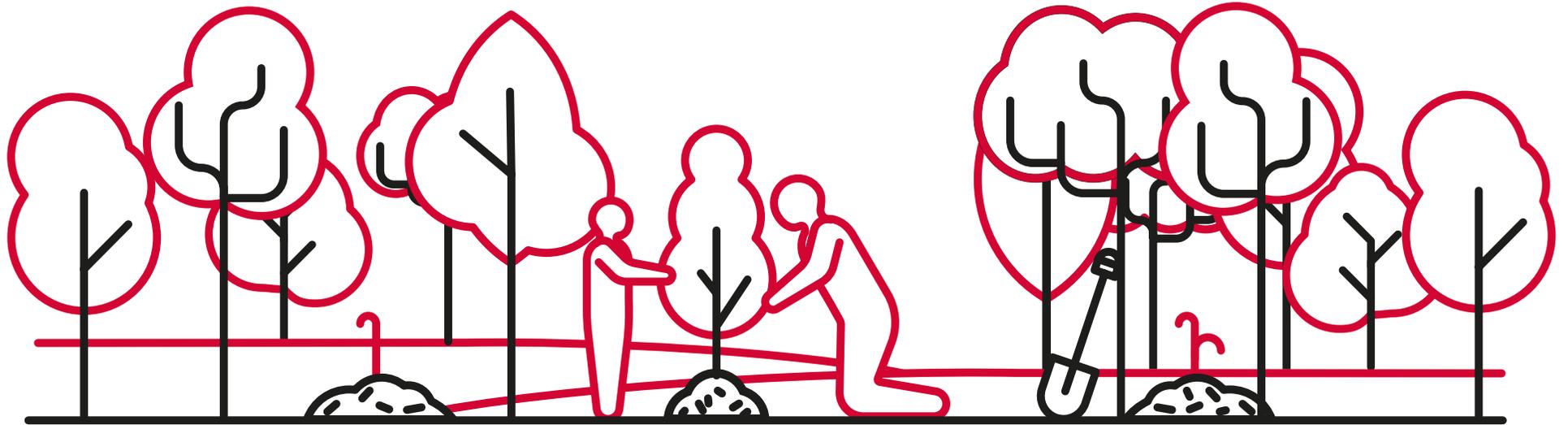
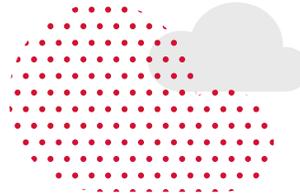
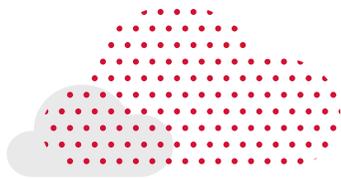




Land use, Land use Change and Forestry (LULUCF)

About

The Land Use, Land Use Change and Forestry (LULUCF) sector covers carbon emissions and sinks associated with land use including from forestry, urban land use and peatland.



Sector summary:

Land use, Land use Change and Forestry (LULUCF)

- Emissions in this sector relate to forest land, grasslands, crops, settlements and harvesting of wood, and impact of change of land use.



- **Few new skills** required in the sector with demand in existing roles main change to transition.
- Job Market for **graduates** in the sector very competitive.
- Graduates lack specific skills in soil management and Geographical information system.
- **Entrants** from FE also lack some skills.
- **Lack of provision** for Forestry Qualifications in Wales.
- Lack of qualifications and courses providing **Environmental restoration skills**.
- School pupils are unaware of **potential opportunities** in forestry and arboriculture.
- Strengthen **nature based skills opportunities** and Biodiversity actions helping connect local communities and nature.

↑ The forestry workforce required in **2025** is projected to be a **62%** increase on **2019** figures.

This increase relative to the **2019** workforce is projected to decline to **43%** by **2030**. There is also a need to replace around **10%** and **20%** of the 2019 workforce by **2025** and **2030** due to retirement.

Nature based jobs have **high availability of graduates** with suitable skills.



Going Forward

Outlined below are some of the headline areas that have been identified during the development of the Plan. The Sector consultation will target questions and detailed actions that will create the Sector Roadmaps for skills. The aim is to shape the right approach to take forward skills in Wales and deliver shared agreed actions.

- Engage with the National Nature Service concept as a key enabler for net zero and nature based skills.
- Work with the Welsh Government's Biodiversity Deep Dive team to ensure we identify and develop the right skills and expertise for the jobs required for nature recovery, both now and in the future. We will expand and enhance schemes to strengthen the capacity and capability of the public, private and third sector to accelerate delivery for nature recovery.
- Joined up working will be the key focus to ensure actions in the timber industrial strategy align with current and emerging green construction skills.





Waste Management

About

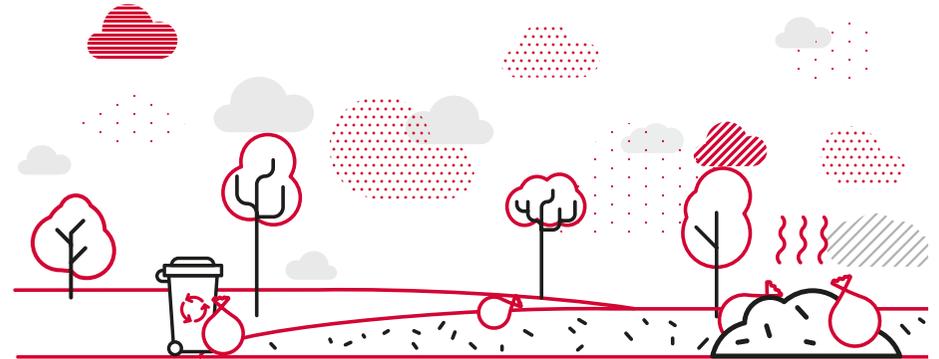
The waste management sector covers the collection and treatment of waste and recycling. It is an important economic sector in Wales, and a part of the foundational economy.



Sector summary:

Waste Management

- Emissions from this sector is associated with landfill, waste-water treatment and incineration of waste.
- Wales is leading the way in Net Zero Transition for the Waste Mangement Sector.



- **Technical skills** are present in existing workforces.
- **Minor reskilling** is required.
- Reskilling or additional jobs on **consumer engagement and behaviour change** promoting Circular Economy.
- **Training not valued** in sector alongside lack of time and budgets.
- **Beyond Recycling** require skills outside waste management on how to re-use/remake.
- **Reuse and repair skills** need developing and include technical (electrical testing), carpentry, sewing, reverse logistics and auditing.

Wales Waste sector emissions now

55% ↓

below **1990 baseline**.



Target is **92%** reduction by **2030**.

Demographic Stats

90% of the Welsh waste workforce are **male**.



and

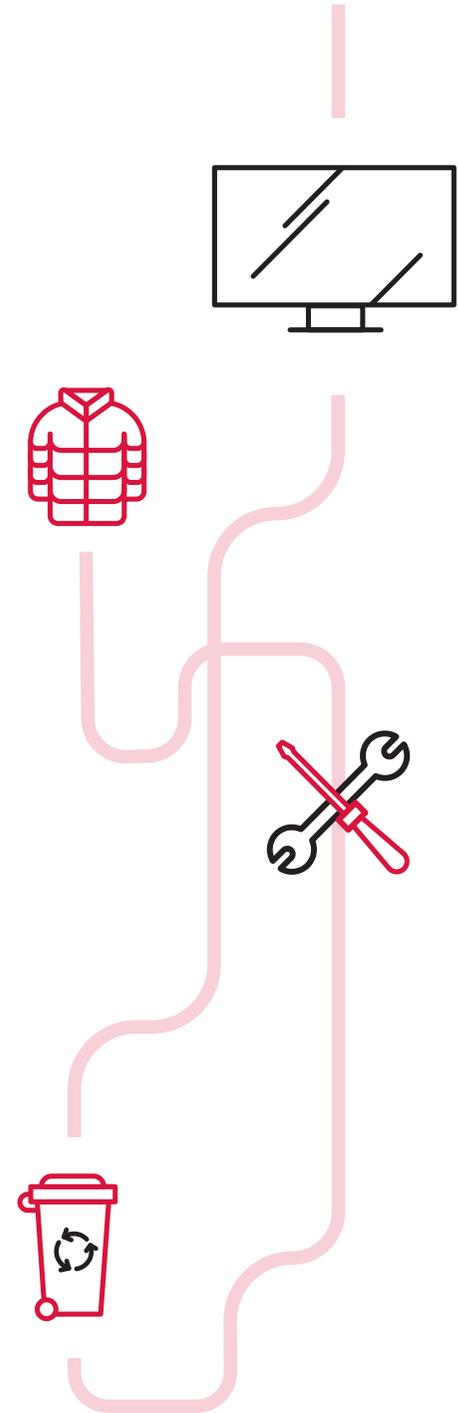
95% are **white**.



Going Forward

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- › Enable collaboration between business leaders in the waste management sector and the digital sector to improve digital literacy, help support decision making, logistics and embracing new technology as the sector moves towards the circular economy.





Cross Cutting Skills

In addition to the skills road map setting out the current skills position for each sector, there are cross-cutting skills that arise throughout most of the emission sectors, which are equally as important to consider in the route to net zero.



Circular Economy

About

A circular economy aims to keep resources in use for as long as possible in order to avoid waste.

Products and services are heavily relied upon by society and the resources from which they are manufactured impacts our carbon footprint and

directly affects our success in delivering net zero. Supporting the development of a skilled workforce capable of achieving resource efficiency targets is therefore key to building a greener more circular future.

A wide range of skills are needed to support the circular economy including technical, sector-specific skills and cross-sector such as data analysis and reporting.

Sector summary:

Circular Economy

- Circular Economy (CE) aims to keep resources in use for as long as possible to avoid waste.
- Moving to net zero will require increase in re-use, repair and recycling resources.
- Key cross-cutting theme in the journey to net zero.



- Companies need to make the move away from linear **business models**.
- Focus on **extraction of resources, production of goods** and **disposal of waste**.
- Skills needed in **incorporating CE practices** in business models and implementing principles.
- Many businesses **unaware of principles** and many may already be adopting CE practices.
- Various **skills gaps** exist in data collection and analysis, understanding material and collaborative working.
- **Technical skills** gaps i.e. biomass management in Agriculture.
- **Existing qualifications** remain focused on linear models.



Impact on businesses across a range of sectors.

Businesses need to review business models and day to day practices.



Awareness raising needed on CE as a concept.

Scope for significant growth.



Source: Wales Centre for Public Policy (WCPP) – Net zero skills: Insights and evidence from emissions sectors in Wales

Going forward

Outlined below are some of the headline areas that have been identified during the development of the Plan. The Sector consultation will target questions and detailed actions that will create the Sector Roadmaps for skills. The aim is to

shape the right approach to take forward skills in Wales and deliver shared agreed actions.

- Encourage the integration of circular economy principles into qualifications at

all levels, which will help develop awareness of the circular economy for workers entering the sector, as well as those reskilling through formal qualifications.

Digital

About

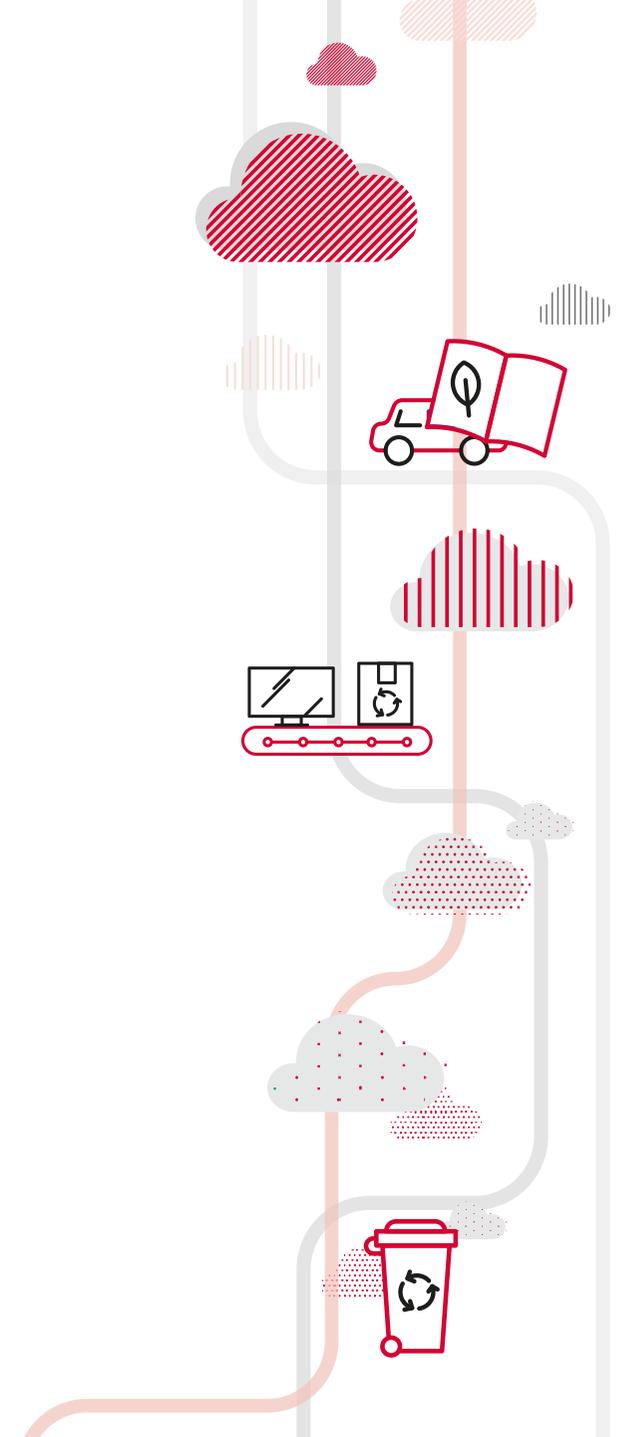
Digital skills are referenced as an overarching ‘Mission’ within the Digital Strategy for Wales. “Mission Three” sets out the ambition of how we will “Create a workforce that has the digital skills, capability and confidence to excel in the workplace and in everyday life”. Aligned to the Digital Strategy for Wales, Professor Phil Brown published his final report into the impact of digital innovation on the economy and the future of work in Wales in September 2019. He spoke of Wales facing a “race against time”, with the pace and scale of digital innovation having the potential to overtake our ability as a nation to respond. His report provided an evaluation of the realities and trends that will shape the future of work in Wales and the underlying drivers of the Welsh economy in the context of the fourth industrial revolution.

The Welsh Government’s Digital 2030 strategic framework², co-constructed with the further education and skills sector, sets out a shared vision, aims and objectives for integrating digital delivery into post-16 learning. The framework is used to help set priorities and focus investment to ensure that digital delivery adds value to learners’ experiences.

Going forward

Outlined below are some of the headline areas that have been identified during the development of the Plan. The Sector consultation will target questions and detailed actions that will create the Sector Roadmaps for skills. The aim is to shape the right approach to take forward skills in Wales and deliver shared agreed actions.

- › Work with the Flexible Skills Programme’s (FSP) partnership programme to support private sector employers, especially SMEs, to help address digital skills to help meet the net zero commitments.
- › Undertake research to identify what digital skills are needed to support our net zero commitments and where the potential gaps are.
- › Expect further education institutions to put in place strategic plans for digital learning, supported by £8m capital investment over the next three years. Institutions will be required to show in their plans how they will take a sustainable approach to digital technology.
- › Work with employers to provide advice and support on the impact and benefits of growing digital skills within their workforce.



Welsh Language

About

Wales needs a confident, bilingual workforce. Changes brought about by decarbonisation have the potential to affect the level of Welsh language use across sectors. For those sectors where customer engagement and behaviour change are key skills needs, such as residential buildings and waste management, there is a recognition that customers who speak Welsh will want to engage with someone who also speaks Welsh. Increasing the number of people who can learn through the medium of Welsh is a priority– crucial to the success of our Cymraeg 2050 policy and to the new strategic duty in our bill to expand Welsh medium tertiary provision.

Going forward

Outlined below are some of the headline areas that have been identified during the development of the Plan. The Sector consultation will target questions and detailed actions that will create the Sector Roadmaps for skills. The aim is to shape the right approach to take forward skills in Wales and deliver shared agreed actions.

- Continue in our co-operation agreement we will fund the Coleg Cymraeg Cenedlaethol to increase the proportion of apprenticeships and further education programmes that are available in Welsh.



Procurement

About

The Welsh Procurement Policy Note WPPN 12/21: Decarbonisation through procurement – Addressing CO₂e in supply chains³ was published to provide advice on Scope 3 emissions. This includes purchased goods and services, which can account for approximately 60% of an organisations CO₂ emissions. The challenge presented by Scope 3 emissions from supply chain activity is that while they arise from the organisations demand for goods, services or works, they occur in supply chain activities that organisations do not directly own or control. However, supply chain activities contributing to CO₂ emissions can be influenced by effectively applying best practice procurement tools and processes over the life of the contract. There is a need to support commercial and procurement professionals improve and strengthen their skills to help enable the delivery of better outcomes for Wales.



Going forward

Outlined below are some of the headline areas that have been identified during the development of the Plan. The Sector consultation will target questions and detailed actions that will create the Sector Roadmaps for skills. The aim is to shape the right approach to take forward skills in Wales and deliver shared agreed actions.

- Work with the Procurement Centre for Excellence Project, which is being established to help commercial and procurement professionals deliver better outcomes for Wales by sharing best practice on the adoption of policy, helping with the ability of buyers to understand what policy they should apply and creating opportunities to share learning. It will also provide key insights into new developments and help people access the right training at the right time, widening the reach of capability development programs across Wales.

What's Next

We will undertake a public consultation to determine more detail on each of the sector specific skills requirements. We will aim to set out the current skills position for each sector in Wales, what skills are needed in the short, medium and long term and how this will be achieved across Wales through partnership working.

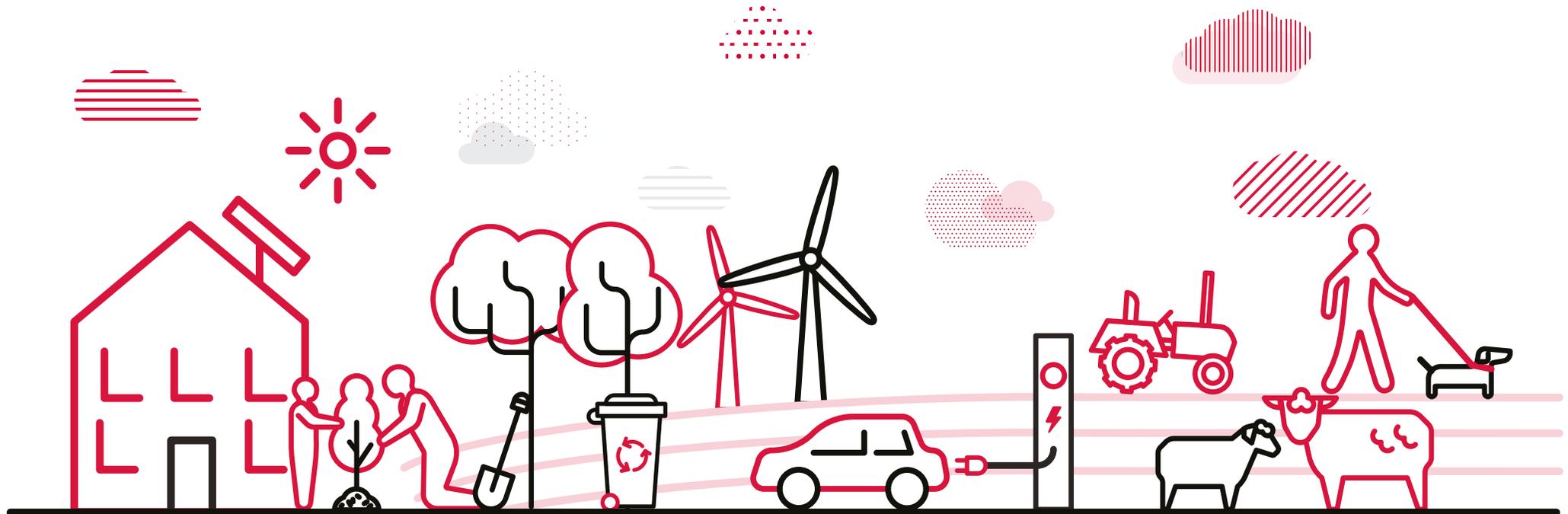
The outcome of the consultation will support the development of a skills roadmap for each sector.

The plan details **36 actions** that we will take forward as part of the implementation stage of the plan. We have already commenced work on many of the actions, which is largely in part thanks to the support and engagement shown by our stakeholders and cross government way of working.

Actions have been set out in 3 categories:

- > **Short Term** – under 1 Year
- > **Medium Term** – 1–2 Years
- > **Long Term** – over 3 years

The actions are summarised in the attached document; *Actions we will deliver going forward.*



Summary

Related publications

Net Zero Wales Carbon Budget 2 (2021 to 2025)

<https://www.gov.wales/net-zero-wales-carbon-budget-2-2021-2025>

For Further Advice and Guidance or just to see how you can get involved,
email: netzeroskills@gov.wales