Comhairle Contae Chill Mhantáin
Wicklow County Council

Wicklow Skills Strategy

2024 - 2030

Cill Mhantáin Wicklow

Bord Oideachais agus Oiliúna Chill Dara agus Chill Mhantáin
Kildare and Wicklow Education and Training Board

SETU

Regional Skills Mid East
Partnerships for Skills

An Roinn Breisoideachais agus Ardoideachais, Taighde, Nuálaíochta agus Eolaíochta
Department of Further and Higher Education, Research, Innovation and Science

Enterprise Ireland

NMCI
National Maritime College of Ireland

Oifig Fiontair Áitiúil
Local Enterprise Office

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Introduction

County Wicklow is a great place to live, work, visit and do business in. As one of the most rapidly growing counties in Ireland, Wicklow has unlimited business potential, some of which can be seen through the significant expansion and development the County has undergone in recent years. Yet, **the availability of skilled workers is key to maintaining competitiveness and attracting investment** to the County.

The aim of this Skills Strategy is to ensure that County Wicklow will continue to develop the necessary skills to capitalise on emerging employment opportunities by facilitating the development of an adequate supply of sufficiently skilled labour that should be available in Wicklow over the coming years to maximise potential growth across the county's key economic sectors.

The Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland region has identified the **screen and content creation**, **food and drinks**, **tourism and hospitality**, and **renewable energy sectors** as key areas of economic growth in Co. Wicklow. These sectors are likely to require a supply of skilled labour to adequately meet the future needs of employers and WCC intends to work with education and training providers to ensure relevant training is available. To this aim, WCC established a Skills Taskforce that includes representatives of the Kildare Wicklow Education and Training Board (KWETB), South East Technological University (SETU), National Maritime College of Ireland (NMCI), the Irish Institute of Training and Development (IITD), the Mid-East Regional Skills Forum, Enterprise Ireland, Screen Ireland, and Wicklow Naturally. The Taskforce is chaired by the Chief Executive of Wicklow County Council and provides strategic oversight in the development of the Skills Strategy.

Stakeholder Engagement

This skills demand and supply analysis put forward in this report is underpinned by a process of industry and key stakeholder engagement, which was undertaken between June and October 2023. This process included an online business survey, six roundtable discussions with business representatives of key economic sectors in Co Wicklow, and 30 stakeholder interviews with a mix of industry bodies, business networks, education and training providers, and community organisations. The results and insights from this engagement are summarised in Chapter 4. Sector-specific insights derived from stakeholder consultation are also included in Chapters 5-8, which focus on specific sectoral analyses.

Skills Development Enablers

Growing Population

Co. Wicklow's population of approximately 156,000 is concentrated in the urban centres of Bray, Greystones, Wicklow (Town) and their surroundings along the coastal areas. The county has seen steady population increase that is increasingly driven by migration surpluses while natural surpluses are becoming less pronounced as the demographic transition and ageing of society progresses. **By 2030, the county's population is expected to grow by 8%, reaching approximately 169,000 persons**. (See Chapter 3 for an in-depth discussion of population and labour force projections). High population growth can potentially lead to an increase in labour force and footfall alike.

Expanding Labour Force

With a labour force of approximately 75,000 persons, Co. Wicklow is largely within Ireland's average in terms of labour force size relative to population size. **The labour force is expected to expand by approximately 10,000 persons to 85,000 persons in 2030, representing a higher growth rate than for the population overall.** Unemployment has been steadily falling over the past decade, and with full employment levels approaching there is limited potential for activating additional workers. While the expanding labour force provides significant additional resources for employment, attention also needs to be paid to work force ageing trends (see Chapters 5-8 for sectoral analyses of workforce demographic trends).

Increasingly Highly Educated Labour Force

Approximately 50% of Co. Wicklow's labour force has a third-level degree, well above the national average. The share of third-level graduates varies significantly between predominantly urban areas along the coastal areas in the north and west of the county (higher) and predominantly rural areas in the south and west of the county (lower). The long-term trend towards third-level education is expected to continue and increase education levels in the labour force generally as more third-level educated young people enter the labour market. Over the period leading up to 2030, this trend is expected to yield a significant increase in persons with a third-level degree, while the number of persons without a third-level degree is expected to remain constant. Consequently, professions that do not require university education may become more challenging to fill. Short-term qualifications and work-based experience in crafts and trades, particularly through apprenticeships, are becoming increasingly sought after by industry. The demand for an increasingly specialised workforce is fraught with challenges too, as Co. Wicklow competes with Dublin and other larger population and economic centres in the country in attracting university graduates.

Skills Attraction Inhibitors

Consolidated findings from baseline analysis and stakeholder engagement point at several high-level themes that drive economic development in Co. Wicklow and nationally. These topics include challenges around housing, visitor accommodation, transport and connectivity, business supports and competitiveness, and education and training. Responsibility for action to address these challenges lies in many cases outside the primary remit of WCC and instead requires close cooperation between WCC and national political actors, business representative organisations, and social representative groups to promote action. If addressed adequately, these challenges can become enablers of economic growth that can accelerate the impact of specific actions and recommendations for the individual sectors. Contrarily, if appropriate solutions fail to be implemented, these challenges may present inhibitors that limit the effectiveness in the delivery of specific actions and recommendations for the individual sectors.

Limited Housing Supply and Affordability

Co. Wicklow's housing market is influenced by its proximity and connectivity to Dublin and its geographical constraints. With steep increases in and high levels of both rental and residential property prices, providing affordable solutions to the current housing demand will remain challenging. County trends in the coming years are likely to follow national and international trends more broadly, while local risks of price decoupling from available income might slow down further price increases. Nevertheless, solutions for the housing and rising cost of living are strongly needed to attract and retain the low and medium income earners needed to fill current and future skills shortages particularly as far as new and emerging occupations are concerned.

Limited Visitor Accommodation

Co. Wicklow has limited tourist accommodation, particularly in the mid-price range, which is a challenge for the growth of tourism and hospitality in the county. The lack of accommodation means visitors cannot stay longer, spend more, or engage in activities. This has a negative impact on local service providers, as diminishing visitor revenue means businesses cannot grow and invest in talent retention and attraction.

Regional Disparities in Transport and Connectivity

While road connectivity has significantly improved in all inhabited parts of Co. Wicklow, public transport and active modes infrastructures remain fragmented and show marked differences between northern/eastern (coastal) areas in proximity to Dublin, and southern/western (inland) areas further away from large population centres. As transportation has been identified as one of the most significant constraints to sectoral growth, the expected continuous growth of the population necessitates an expansion of travel options along with a modal shift towards public transport and active modes. Proposals and projects specified in the Co. Wicklow Transport Strategy and Greater Dublin Area Transport Strategy should be advanced and implemented, while additional options could be explored to improve accessibility overall.

Business Supports and Competitiveness

Stakeholders pointed at the crucial role of extending business supports, improving competitiveness, and initial public investments as stimulators to further investment, job creation, and overall economic growth. Emerging sectors, and sectors which in the light of recent economic crises have faced a high degree of volatility, such as tourism and hospitality, could particularly benefit from such measures and become or remain crucial pillars of the county's economy.

Skills demand analysis and supply strategies across key economic sectors

The four key economic sectors prioritised in the Skills Strategy – namely screen and content creation, agri-food and forestry, tourism and hospitality and renewable energy industries – vary widely in terms of employment structure, growth trends, crisis resilience and growth momentum. The analysis of skills demand for each sector is based on labour force projections, past sectoral employment trends, current employment figures, sector-specific international and national trends and their implications for workforce and skills development, sectoral strategies and their implications for skills development. The projected employment demand is compared with current sectoral skills supply across both higher and further education and training, which leads to estimations of future provision levels required to meet the skills needs identified.

The table below summarises the skills demand conclusions for each sector, along with relevant skills supply strategies to inform the recommendations.

Sector	Labour Market Projections and Skills Demand Summary	Relevant Skills Supply Strategies
Screen and Content Creation	A significant proportion of national third-level graduates will be required to commence employment in Co. Wicklow to support the projected high growth of the screen sector in the county.	Monitor HEIs graduate pipeline and increase exposure to training and work opportunities in the county.
	Need for screen and content creation graduates to improve their work readiness to a certain level expected by industry.	Continue to provide opportunities to develop work placement programmes, which can provide the talent pipeline that give industry access to skilled graduate trainees.
	Work-placement programmes are needed beyond the animation and high-end film and television productions to facilitate attractive and valuable routes into industry for new entrants.	Explore the potential to broaden the scope of work-placement programmes.
	Structure of standard apprenticeships are not adequate for most employers due to the short-term nature of employment.	Consider the introduction of sector-adapted apprenticeships for screen and content creation industries.
Agri-Food, Tourism and Hospitality	Projected higher education skills needs (see section 6.5) indicate that between 10% and 16% of national third-level graduates in agri-food, tourism and hospitality areas will be needed to commence employment in Co. Wicklow to meet skills demand under a high growth scenario.	Monitor HEIs graduate pipeline and increase exposure to training and work opportunities in the county.
	Training programmes and course configuration, including the range of accredited courses provided locally, are not always suitable for employers (due to cost and time constraints).	Encourage an industry-led approach to training provision akin to the Skillnet Ireland funding model.
	Culinary apprenticeship singled out as particularly cost prohibitive.	Address the feasibility of culinary apprenticeships for employers and small local businesses.
	Lack of training programmes to equip students with skillsets required by new and emerging occupations in tourism and hospitality, such as destination and outdoor recreation management.	Engage with third level and further education and training providers to explore the creation of new courses or introduction of modules in current tourism-related courses to equip students with skillsets fit for outdoor recreation management.

Sector	Labour Market Projections and Skills Demand Summary	Relevant Skills Supply Strategies
Renewable Energy Industries	Projected higher education skills needs (see section 8.5) indicate that up to 7% of national third-level graduates in renewable energy-related study areas will be needed to commence employment in Co. Wicklow by 2030 to meet the skills demand under a high employment growth scenario.	Need to monitor the HEI graduate outcomes to assess opportunities and challenges in attracting new graduates to Co. Wicklow especially for new and emerging occupation needs across renewable energy industries.
	Training programme course configuration, including accredited courses not suitable for employers (cost and time constraints).	Foster an industry-led approach to training provision.
	Insufficient capacity for workforce upskilling for offshore work.	Accelerate workforce upskilling through course monitoring and introduction of additional specialised courses.
	Insufficient collaboration between stakeholders for talent supply chain events and skills events with local communities and schools.	Public-private collaboration in the identification of skills and talent needs.
	Skills anticipation (overview of demand and corresponding consequences for training provision) available only for certain dates.	Monitoring mechanisms to ensure continuous overview of skills anticipation.
	Local workforce will not have the capacity to meet short term demand.	Attracting workers from abroad to fill skills gaps in new and emerging occupations.
	Insufficient awareness of renewables sector as an attractive industry to work in.	Education campaigns to advertise careers in renewable energy to primary and secondary school students.

Recommendations

The list of recommendations arising from this study are presented in the table below. In developing the recommendations and associated actions, attention was given to the findings of the literature review and policy analysis of national and international skills strategies, as well as to national and international best practices in skills development. The recommendations are also strongly informed by the insights and feedback gleaned from the key stakeholders consulted, including chambers of commerce, business networks, community organisations, and third level and FET education providers in Co. Wicklow. This wide range of inputs are considered together with the population, labour and education projections that are put forward in this report to identify the demand for workforce and skills until 2030, while also considering the skills supply pathways for this workforce.

The recommendations proposed for the four key economic sectors that were singled out for analysis – namely, screen and content creation, renewable energy industries, agri-food and forestry, and tourism and hospitality – are framed by three common themes:

1) **Strategic and Collaborative Approaches for Innovation and Skills Development;** based on the understanding that the tremendous growth opportunities offered by both traditional and emerging economic sectors in County Wicklow need to be matched by a corresponding level of ambition to invest in innovation and training.

2) **Supporting Existing and Attracting New Businesses in County Wicklow**; with a range of proactive supports and measures that are needed to enable existing businesses to achieve their full growth potential and develop their skills base and to attract new businesses to the county.

3) **Promotion of Career Pathways and Work Experience Opportunities**; with a range of early intervention initiatives aimed at raising awareness about career pathways available for each of the key economic sectors as well as the promotion of work-based training initiatives, including traineeships, apprenticeships, and vocational training.

Key projects are identified for each theme across the four key economic sectors, as shown in the table below. The stakeholders best placed to carry forward each project and the proposed timelines for their implementation are included in the detailed sectoral framework provided in Chapter 9.

Screen and Content Creation	
1	Continue current sectoral specific industry engagement and monitor emerging opportunities to engage.
2	Monitor existing and emerging occupations for screen and content creators in Co. Wicklow for potential opportunities.
3	Promote the new enterprise supports available at the Clermont Screen Hub.
4	Support and seek funding opportunities to facilitate the provision of training facilities for new skills development.
5	Development and delivery of a suite of programmes to facilitate work-based training initiatives, apprenticeships and vocational training in the screen and content creation sector.
6	Support the promotion of careers in screen and content creation to TY, second level and third level students through the work of the Crew Academies.
7	Support the development of bespoke FET training for screen and content creation.

Agri-Food and Forestry	
1	Seek opportunities to progress development of the Food Incubation Centre.
2	Continue to encourage industry engagement and networking.
3	Monitor existing and emerging occupations for forestry and food and drinks production in Co. Wicklow.
4	Continue Wicklow Naturally support to encourage initiatives across the agri-food sector.
5	Continue running the Food Starter and Food Academy programmes on a regional basis depending on demand.
6	Inform and support small local businesses to access funding opportunities.
7	Encourage local businesses to support work placement opportunities.
8	Strengthen existing partnerships between Coillte and education and training providers to encourage the development and provision of higher and further education courses for the forestry sector.

Tourism and Hospitality	
1	Continue to support industry engagement through the work of Wicklow Tourism.
2	Monitor existing and emerging occupations for potential opportunities for tourism and hospitality in Co. Wicklow.
3	Wicklow tourism strategy and skills review.
4	Continue Wicklow Naturally support to encourage initiatives across the food, hospitality, and tourism sectors.
5	Inform and support small local businesses to access funding opportunities.
6	Strengthen existing partnerships between flagship tourism and recreation destinations and education and training providers.
7	Encourage local businesses to support work placement opportunities.

Renewable Energy Industries	
1	Support the development of infrastructure for offshore renewables energy (ORE).
2	Continue to support industry engagement through the work of the East Coast ORE Network.
3	Facilitate the provision of training facilities for new skills development.
4	Monitor policy framework developments for the renewable energy sector and make submissions where relevant.
5	Explore opportunities to develop micro-credentials in partnership with the RES4CITY programme co-ordinated by Maynooth University.
6	Promotion of work-based training initiatives, apprenticeships, and vocational training across renewable energy and maritime industries areas.
7	Contribute to the work of the Accelerating Renewable Electricity Taskforce for skills development in renewable energy areas.
8	Encourage STEM careers at primary and secondary schools where opportunity arises.
9	Support the Skills Taskforce, ORE Network, and any other relevant groups to attend and feed into industry and college open days.

01
Introduction

1 Introduction

County Wicklow is a great place to live, work, visit and do business in. As one of the most rapidly growing counties in Ireland, Wicklow has unlimited business potential, some of which can be seen through the significant expansion and development the County has undergone in recent years. Yet, it must be acknowledged that **the availability of skilled workers is key to maintaining competitiveness and attracting investment** to the County.

County Wicklow boasts a diversified economy with micro, small, and medium-sized enterprises dominating the enterprise landscape. In recent years, the number of large-scale enterprises has decreased. Regarding foreign investment, the number of IDA companies has remained relatively stable, but below the national average. Businesses are concentrated in the urban areas, with the northern stretches being closely interlinked with the South Dublin and Dún Laoghaire–Rathdown economies in terms of value chain and market access. Key economic sectors include the construction and manufacturing sector, screen and content creation, food and drinks production, life sciences, and services (especially tourism, wholesale and retail, real estate, and financial services).

1.1 Rationale and Objectives of the Skills Strategy

A Skills Taskforce has been set up by Wicklow County Council in partnership with Kildare Wicklow Education and Training Board (KWETB), South East Technological University (SETU), National Maritime College of Ireland (NMCI), Enterprise Ireland, and industry representatives with a focus on screen and content creation, food and beverage production, renewable energy, and the delivery of education and training programmes to people from County Wicklow that will meet the future employment needs of these sectors. The Taskforce is chaired by the Chief Executive of Wicklow County Council.

Wicklow County Council has commissioned KPMG Future Analytics to undertake research to inform the development of a new Skills Strategy for County Wicklow. This work has investigated the adequate supply of sufficiently skilled labour that is expected to be required in Wicklow over the coming years to maximise potential growth across a number of key sectors. In doing so, the current research has sought to identify existing skills gaps that are not being met at present and provide an analysis of available skills that are underutilised and are currently commuting outside the county.

The ambition of this research is to identify, formulate and plan a strategic approach on how to accelerate:

- How we identify and prioritise people with the right aptitude for both upskilling and conversion to clearly defined roles within the film, food, and renewable energy sectors especially, but also any other key sectors identified by the research.
- How we prepare for and meet market demand with skills development.
- Building a long-term sustainable framework.

Ultimately, the study – and the Strategy stemming from it – seeks to ensure that Wicklow will continue to develop the necessary skills to capitalise on emerging employment opportunities.

Within the county's key economic sectors, **screen and content creation**, along with **renewable energy** and **agri-food**, which ties in numerous **tourism** initiatives in the county, are recognised as key pillars in the county's economy in the Mid-East Regional Enterprise Plan to 2024. Moreover, **agriculture** (including agrotech, food, sustainable agriculture) and **forestry**, **marine** (ports, fisheries and the wider blue economy potential), renewable energy and the circular economy, and **tourism, heritage, arts and culture, design and craft industries** are among the areas emphasised for research and innovation in the South East Technological University's Strategic Plan 2023-2028.

The long-term emphasis on these economic sectors have led Wicklow County Council and the Skills Taskforce to focus on **screen and content creation**, **renewable energy, agri-food**, and **tourism and hospitality** in line with the Mid-East Regional Enterprise Plan as key areas of economic growth in Co. Wicklow. These sectors, which have been prioritised in the development of the county's new Skills Strategy, are likely to require a supply of skilled labour to adequately meet the future needs of employers. Consequently, Wicklow County Council intends to work with education and training providers to support the provision of relevant training opportunities.

Overall, this study:

- Carried out a socio-economic analysis of Co. Wicklow that includes an assessment of the demographic, employment, education, housing, and transport profile of the county. Projected demographic and employment growth to 2030, as well as the outlook for trends in education, housing and transport are included in this analysis.

- Incorporated the perspective of the county workforce and industry stakeholders, particularly in screen and content creation, renewable energy, agri-food, and tourism sectors, to gain a deep understanding of the skills shortages and skills needed in the short and medium term.

- For each of the four key economic sectors identified, a labour market analysis was conducted to identify the nature and tentatively quantify the scale of the skills needs for each sector in the coming years. This analysis included an exploratory development of skills demand forecasts based on a number of assumptions as well as national and local sectoral trends.

- Developed a suite of recommendations that can be drawn upon to ensure that the future skills needs of activities across key economic sectors in the county are fully addressed by stakeholders through the education and training system and any other relevant sources of skills supply.

1.2 Methodology

The analysis put forward in this report is underpinned by a process of industry and key stakeholder engagement, which was undertaken between June and September 2023. This process included an online business survey, six roundtable discussions with industry representatives of key economic sectors in Co Wicklow; and 30 stakeholder interviews with a mix of industry bodies, education and training providers, and community organisations and businesses. The results and insights from this engagement are summarised in Chapter 4. Sector-specific insights derived from stakeholder consultation are also included in Chapters 5-8, which focus on sectoral analyses.

1.3 Scope of Evaluation

This report delivers a set of recommendations to anticipate labour supply shortfalls in four key economic sectors (screen and content creation, renewable energy, agri-food and tourism) for the period 2023-2030. The recommendations are aimed at the policy remit of local actors including, but not limited to, local government, the Local Enterprise Office, Kildare and Wicklow Education and Training Board, SETU, and other education providers.

1.4 Report Structure

The report is structured as follows:

— **Chapter 2** presents a ***review of key skills policies***, such as Ireland's National Skills Strategy, the OECD Skills Strategy Ireland 2023 report and the National Further Education and Training Strategy. This outline is followed up by an introduction to **regional further education and training providers,** such as the Kildare-Wicklow ETB and the Mid East Regional Skills Forum, and their **upskilling initiatives** in the region. The chapter concludes with an overview of the **four key economic sectors** prioritised in the current Skills Strategy, namely screen and content creation, renewable energy, agri-food and tourism, which emphasises the rationale underpinning their selection.

— **Chapter 3** introduces the ***socio-economic analysis***, which draws on a wide range of key sources, including CSO 2022 Census results and business demography data, as well as Geodirectory business data and higher education authority data to build the county's **demographic, employment, education, housing, and transport profile**. Based on this data, population, labour force and educational attainment are projected forward to the years leading up to 2030. An analysis of available skills that are currently commuting out of County Wicklow is also included, drawing on data from the 2018 Wicklow Commuter Survey. Where the data permit it, the analysis is disaggregated into the county's five discrete geographic areas (i.e., the Municipal District of Bray, Greystones, Wicklow, Arklow, and Baltinglass). A **SCOT analysis** summarises the key strengths, challenges, opportunities, and threats for the county's demographic, economic, educational, and employment profiles.

— **Chapter 4** presents findings and common themes from the ***stakeholder engagement*** undertaken for this study, including online surveys, interviews, and roundtable discussions. **Semi-structured interviews** were undertaken with over 30 enterprises and companies working in the four key sectors, as well as key informant stakeholders, including representatives of local government, education and training providers and industry organisations. **Six workshops** were also organised in July and August 2023 with industry representatives and members of the Skills Taskforce.

- **Chapters 5-8** present ***sectoral analyses*** for the four key economic sectors. Each chapter reviews the **factors shaping the demand for skills** in the respective sectors. This analysis includes an **overview of national and international trends** in the sector in relation to upskilling and investment in training to acquire new skills along with specific **sectoral policies and implications for current and future skills** and workforce demand. An overview of the sectoral landscape in County Wicklow, which includes details related to the sector size, employment profile, workforce demographics, and expected growth concludes the first section of each sectoral analysis.

  Next, the f**indings and common themes from the *stakeholder engagement process specific to each secto*r** are presented.

  The second part of the sectoral analysis chapters focus on the ***projected demand for skills*** and current supply of skills. Potential 2030 employment figures in each sector consider labour force trends, characteristics of the sector workforce, as well as national and local sectoral trends. **Three scenarios of baseline, high and low growth** are then derived based on the potential variability of these parameters. That said, due to limitations in the current sectoral employment landscape, the volatility in recent employment trends, and the methodological difficulty to project forward from low numbers in each sector, the scenarios presented in each chapter should be interpreted with the caveat related to the high degree of uncertainty they are characterised by.

  The ***skills supply*** sections summarise the critical skills shortages for each sector and present the **data on graduate pipelines** across various fields of study relevant for sectoral occupations and the **further education and training schemes** relevant for these occupations. Particular emphasis in these analyses is laid on the educational attainment of students with Wicklow as their county of origin and the local provision of education and training.

  All four chapters include an **estimation of future skills provision levels that will be required to meet the skills needs brought about by employment growth forecasted up to 2030 in each sector**. A high-level overview of proposed approaches that local stakeholders, including employers and education and training providers, can take to match skills provision with labour market demand concludes each of the sectoral analyses.

- **Chapter 9** presents recommendations on tailored measures to build up the supply of skills required in each industry sector as well as across all economic sectors when dealing with “big-picture” remedies relating to aspects regarding industry engagement and supports needed for local businesses. As such, some of the recommendations are directed at overcoming current business constraints rather than being specifically related to skills. Nevertheless, the range of recommendations put forward does include initiatives within the policy remit of local actors, including local government, industry, and education and training providers.

02 Skills Policy Landscape

2 Skills Policy Landscape

This chapter presents a review of key skills policies, such as Ireland's National Skills Strategy, the OECD Skills Strategy Ireland 2023 report and the National Further Education and Training Strategy. This outline is followed up by an introduction to **regional further education and training providers,** such as the Kildare-Wicklow ETB and the Mid East Regional Skills Forum, and their **upskilling initiatives** in the region. The chapter concludes with an overview of the **four key economic sectors** prioritised in the current Skills Strategy, namely screen and content creation, renewable energy, agri-food and tourism, which emphasises the rationale underpinning their selection.

2.1 Key Policies and Strategies

OECD Skills Strategy 2023

The Organization for Economic Cooperation and Development (OECD) assessment of Ireland's National Skills Strategy 2025[1] reviews how Ireland's existing skills strategy will need to adapt to ensure that it is still fit for purpose. This adaptation is required in light of the fact that the National Skills Strategy was published in 2016 and significant changes in the skills and employment landscape have since occurred.

Assessing the performance of Ireland's skills system, the OECD notes that although **youth are achieving high levels of education and skills performance**, many adults do not have the skills to succeed in an increasingly complex and interconnected world. This means that despite the high rate of tertiary attainment level, **many Irish adults are at risk of falling behind in an increasingly complex and interconnected world** since they do not have the right skills to thrive in their current jobs and are unprepared for future changes in the nature of their work. Moreover, **participation in lifelong learning** – which is essential to equip all adults with the skills needed in current and future labour markets **– in Ireland lags behind top EU performers**.

Based on the assessment of the performance of Ireland's skills system and discussions with the Government of Ireland, four priority areas were singled out for Ireland to achieve the OECD Skills Strategy Project:

1. Securing a balance in skills through a responsive and diversified supply of skills.
2. Fostering greater participation in lifelong learning in and outside the workplace.
3. Leveraging skills to drive innovation and strengthen firm performance.
4. Strengthening skills governance to build up a joined up skills ecosystem.

The four priority areas are accompanied by 24 recommendations and specific actions that translate the high-level strategic policy directions into more concrete policy interventions. The OECD report highlights the need for upskilling and resources being provided to Ireland's workforce with the war in Ukraine contributing to the cost in energy and food prices which has cut household's real incomes whilst the onset of the Covid-19 pandemic has accelerated the shift to remote working, which is now an important factor in employee decision-making. At the same time, the emergence of Artificial Intelligence

[1] OECD (2023), *OECD Skills Strategy Ireland: Assessment and Recommendations*, OECD Skills Studies, OECD Publishing, Paris, OECD Skills Strategy Ireland : Assessment and Recommendations.

is a potential threat to jobs as well. All of these factors require a response that puts skills at the centre of a policy response and investment to tackle the present challenges the nation's workforce are facing and potential challenges further into the future.

Ireland's National Skills Strategy 2025

Ireland's National Skills Strategy (NSS)[2] sets the overall vision and direction of skills policy in Ireland and was perceived as a milestone in elevating skills development as a policy priority in its own right rather than mentioning it as merely facilitating other priorities. The national strategy was developed in the context of the significant reforms carried in the mid-2010s to ensure that the education and training sectors are prepared to equip all learners with the appropriate skills and knowledge required by an evolving economy. Consequently, the NSS was written in line with broader Irish government policy, namely *Enterprise 2025*, *Pathways to Work 2016-2020*, and the *Action Plan for Jobs*. The Strategy recognises that an adaptable and diverse workforce is crucial for the Irish economy and outlines initiatives and measures for upskilling and reskilling the working population. The importance of lifelong learning and adult education in maintaining a skilled workforce was highlighted as well.

The NSS also singled out a number of sectors that are important to the Irish economy and are experiencing a shortage of specific skillsets[3]. With regard to the key economic sectors for County Wicklow, the strategy pointed towards the need for chefs within the Leisure, Tourism & Hospitality sector, R&D scientists, food technologists and technicians with new product development skills in the agri-food sector and further skills needs within the Biopharma, Medical Devices and ICT sectors.

Whilst Ireland's National Skills Strategy hones in on a number of key points with regards to future proofing the Irish economy and providing Irish workers the skills and resources to thrive in a globalised economy, there are a number of points, which with the benefit of hindsight, were missed in 2016. For example, the provision of guides and resources for a move to hybrid/remote working in the Irish economy could be explored in the next NSS. While the 2016 NSS acknowledges the importance of addressing social inequalities in relation to accessing resources and developing skills, stronger emphasis on initiatives ensuring that marginalised groups have equal access to training and education could be laid in the next iteration of the strategy.

National Further Education and Training Strategy

The new National Further Education and Training (FET) Strategy[4] emphasises the need for FET to focus on meeting Ireland's critical skills needs. Notably, the strategy highlights **the need for ETBs to develop skills specialism that reflect the unique capabilities and industry clusters within their catchment**. Moreover, considering the challenges Ireland faces in meeting its climate objectives, the strategy calls for FETs to focus on **building strong capabilities around energy, building and the environment**, which is central to the **modernisation of construction skills**. The measures proposed to support this direction include a national roll-out of Nearly Zero Energy Buildings (NZEB)

[2] Department of Further and Higher Education, Research, Innovation and Science (2016). *Ireland's National Skills Strategy 2025*. Available at: gov.ie - Irelands National Skills Strategy 2025.
[3] Department of Further and Higher Education, Research, Innovation and Science (2016). *Ireland's National Skills Strategy 2025*, p. 34. Available at: Irelands National Skills Strategy 2025.
[4] SOLAS (2020). *Future FET: Transforming Learning – The National Further Education and Training (FET) Strategy 2020-2024*. Available at: solas_fet_strategy_web.pdf.

construction skills centres, the ramping up of programme development across all green skills areas, and the updating of curricula across all relevant apprenticeships and other FET programmes to embed a sustainable development focus. Perhaps most critically, the strategy notes, “there should be emphasis on ensuring that all FET provision is used to develop critical climate change and environmental knowledge, and that FET campuses are based on a strong sustainability ethos.”

The new FET strategy’s call for the further development of skills specialisms by ETBs should further facilitate the strategic collaboration of industry stakeholders, local authorities, education providers and the KWETB to develop specialist knowledge in areas such as content creation, energy, tourism, hospitality, which are key drivers of economic growth in Co Wicklow.

Skillnet Ireland Strategy 2021-2025

Skillnet Ireland’s strategy for 2021-2025[5] recognised the importance of advancing the competitiveness, productivity, and innovation of Irish businesses through enterprise-led workforce development. Notable plans included the need to **support the talent demands in the renewable energy sector** for building a low carbon and sustainable economy; increasing the focus on staff upskilling and management development initiatives that help drive productivity, growth, and innovation in SMEs; and extending the reach of programmes to support 100,000 workers every year.

2.2 Regional and Local Education and Training Providers

This section provides an overview of key regional and local business support organisations and programmes designed to enable employers and education and training providers to work together to meet the emerging skills needs of County Wicklow.

Kildare Wicklow Education and Training Board (KWETB)

The KWETB Statement of Strategy 2020-2024[6] highlights the importance of education and skill development to create a skilled workforce and foster lifelong learning. In an employment context, KWETB's strategic plan singles out important enterprise areas in **wholesale**, **retail**, **industry**, **health**, **education**, **accommodation** and **food** (with over 50% of the workforce employed in professional, associate professional and skilled trades). Similarly, SOLAS’ 2023 Regional Skills Profile of the Mid-East region singled out **wholesale** and **retail**, **industry**, **health** and **social work**, **education,** and **construction** as the top five sectors for employment. As of Q3 2022, four of the five sectors had increased in employment numbers since Q3 of 2019 apart from construction which had seen a 15% decrease in workforce[7]. Moreover, The Recruitment Agency Survey[8] conducted in November 2023 by the Skills and Labour Market Research Unit (SLMRU) in SOLAS reported findings related to “difficult-to-fill vacancies” for jobs that require skills that are in short supply in the country. The survey highlights the difficulty in filling vacancies in sectors such as **science**, **engineering,** and **technology** (which includes

[5] Skillnet Ireland (2021). *Transforming Business through Talent. Statement of Strategy 2021-2025.* Available at: Skillnet-Ireland-Strategy-2021-2025.pdf (skillnetireland.ie).
[6] KWETB (2020). *Statement of Strategy 2020-2024*. Available at: Statement of Strategy | Kildare and Wicklow Education and Training Board (etb.ie).
[7] SOLAS (2023). *Regional Skills Mid-East*. Available at: Regional Skills Mid East (solas.ie).
[8] SOLAS (2023). *Difficult-to-fill vacancies survey*. Available at: solas-difficult-to-fill-vacancies-survey.pdf.

renewable energy, **food and beverage production**, and **life sciences**), where 41% of difficult-to-fill vacancies were reported. **Construction** (31%), **transport and logistics** (11%) and **health** (5%) were also highlighted as sectors requiring skills that are in short supply.

KWETB are well positioned to support these growth areas by contributing to the Regional Skills Forum and engaging (locally and regionally) with employers to develop a well skilled economy while building on the unique strengths of the region and by providing more specific skills in areas where job opportunities exist.

Mid-East Regional Skills Forum

The network of Regional Skills Fora (RSF) was created as part of the Government's National Skills Strategy and provides an opportunity for employers and the education and training system to work together to meet the emerging skills needs of their regions. The Mid-East Regional Skills Forum includes representatives of Education and Training Boards, Maynooth University, SETU Carlow, Dundalk IT, Skillnet Ireland, Enterprise Ireland, IDA, IBEC, Kildare and Wicklow County Councils and Chambers of Commerce, Local Enterprise Officers as well as business representatives. The Forum provides a single contact point in the Mid-East to help employers connect with the range of services and supports available across education and training as well as a structure for employers to become more involved in promoting employment and opportunities for career progression within their sectors.

The Regional Skills Fora 2020 Strategy[9] identified **hospitality & tourism**, alongside **transport and logistics**, **construction**, **manufacturing and engineering**, and **climate change and sustainable development** as key sectors for intervention. The business supports offered to employers in the Mid-East region include skills requirements and upskilling audits as well as connections with education and training supports. The RSF also delivers a number of upskilling programs for local companies in collaboration between local education and training providers and industry (see Table 2.1 for programme descriptions and details regarding Wicklow companies' participation).

Wicklow County Campus, Clermont House

The development of Wicklow County Campus at Rathnew as a centre of excellence in enterprise and education and innovation is supported and assisted by partnership links with the South East Technological University (SETU) in the provision of life-long learning and higher education courses. The SETU support (Institute of Technology Carlow at the time) in the provision of third level education at the Rathnew Campus and the development of the campus as a hub for the film industry and screen content creation sector was highlighted as a regional policy objective in the Eastern & Midland Regional Assembly Regional Spatial & Economic Strategy 2019-2031.

As noted in the County Development Plan, the presence of Clermont Campus and its envisaged expansion as a third level centre of excellence alongside Wicklow's highly educated workforce further enhance the attractiveness of the county to prospective new companies within the ICT sector. Additionally, a number of large scale data centres are either under construction or have permission in the county, maximising the employment potential of the county.

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[9] Regional Skills Fora (2020). *Our 2020 Strategy*. Available at: RSF_2020_Strategy.

The promotion and facilitation of educational facilities, in particular third level and further educational facilities, is recognised as a key catalyst for future economic activity within the county. The presence of Wicklow County Campus at Clermont House, Rathnew offers significant opportunities for the development of a centre of excellence for higher education and research, capable of establishing partnerships with wider industry, creating jobs, addressing social challenges and driving economic growth within the county.

Table 2.1 outlines some of the key upskilling programmes that are available to companies in County Wicklow to respond to some of their workforce development and training and upskilling needs.

Table 2.1: Regional Upskilling Initiatives

Programme		**Leading Organisation**
EXPLORE	The **EXPLORE** programme was developed to help address the issue of Ireland's low level of participation in lifelong learning. This initiative targets persons over 35 years of age in manufacturing employment with low ICT skills. The programme has been delivered since 2019 in Kildare with typically low Wicklow cohorts (and no participants from Wicklow in 2021 and 2022).	**Regional Skills Forum (Mid-East)**
DIGIECO	**DigiEco – Digital Skills for a Green Economy**, which provides fully funded training, enables companies to undertake a green audit and learn environmental practices that can contribute to a greener workplace, improve the digital green skills of employees, increase awareness on environmental practices that can contribute towards a greener workplace, and raise awareness of climate change. In 2022, a pilot DigiEco programme was delivered in Meath by the Louth-Meath ETB in collaboration with Maynooth University and the Meath LEO. Delivery of a similar session in Wicklow is highly dependent on the businesses and organisations that have a physical foothold in Wicklow.	**Regional Skills Forum (Mid-East)**
SPOTLIGHT ON SKILLS	Enterprise Ireland have developed the **Spotlight on Skills** (SOS) programme in partnership with the Regional Skills Fora and the Irish Management Institute. This one-day online workshops programme helps businesses create a company skills plan to identify and address their critical skills needs, build capability and achieve strategic growth. The programme is targeted at senior managers (two per company) with the knowledge of the entire business function and future growth strategy over the next 1-5	**Enterprise Ireland**

Programme		Leading Organisation
	years. The Spotlight on Skills workshop is free for Enterprise Ireland client companies. Key findings[10] from the 12 SOS workshops that were organised between October 2021 and October 2022 indicate that the largest number of the 122 participating companies were from County Dublin (25%), followed by the South-East (21%). 7% of these companies came from the food sector. Among the strategic capabilities listed by companies as important for driving their success over the three-year period, **talent and technology emerged as some of the most important dimensions for driving the companies' strategic ambitions**. The top skills gaps identified for County Dublin and the Mid-East included **talent management** (especially for County Dublin), followed by **technical skills** (highest for the Mid-East), data analytics client/customer management, sales, operations management, digital marketing, communication and leadership. Interestingly, talent management was mentioned as the top skills gap by all but micro companies.	

2.3 Key Economic Sectors in County Wicklow

The key economic sectors identified in the *Wicklow Local Economic and Community Plan 2023-2029 (LECP)* and the *County Development Plan 2022-2028*[11] include the **film** industry, the **agri-food** sector, **bioeconomy**, **tourism** and **recreation**, the **maritime** industry including support services for **off-shore wind energy**, **information and communications technology**, and **wholesale**, **retail trade**, **transportation** and **storage**[12]. The **screen and content creation** sector, along with **agri-food** and **renewable energy** are also recognised as key pillars in the county's economy in the **Regional Enterprise Plan to 2024 for the Mid-East region**[13]. Moreover, agriculture (including agrotech, food, sustainable agriculture) and forestry, marine (ports, fisheries and the wider blue economy potential), renewable energy and the circular economy, and tourism, heritage, arts and culture, design and craft industries are among the areas of emphasis for research and innovation proposed by the South East Technological University in its Strategic Plan 2023-2028[14].

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[10] Enterprise Ireland (2023). *Spotlight on Skills Workforce Planning: Summary of Key Findings 2021-22.*
[11] Wicklow County Council (2022). *Wicklow County Development Plan 2022 – 2028*. Available at: Adopted Plan.
[12] Ibid., Chapter 9, pp. 13-16.
[13] Department of Enterprise, Trade and Employment (2022). *Mid-East Regional Enterprise Plan to 2024*. Available at: gov.ie - Mid-East Regional Enterprise Plan to 2024.
[14] SETU (2023). *Strategic Plan 2023-2028*. Available at: Strategic Plan 2023-2028 - SETU.

Table 2.2 details the particular policy supports for future growth in these areas. Additional policies relevant for the assessment of skills demand and supply for each of these sectors are reviewed in the sectoral analysis chapters 5-8.

Table 2.2: Key Economic Sectors in County Wicklow

Key Sector	Policies and Developments
Screen and Content Creation	As of July 2023, three out of Ireland's eight film studios are based in County Wicklow: **Ardmore Studios** in Bray, **Ashford Studios** in Ashford, and **Kite Studios** in Kilcoole. These studios have developed into clusters for related companies in the entertainment industry. The internationally recognised **Ardmore Studios** and **Ashford Studios** in Wicklow have traditionally played a pivotal role in film production in the region and have contributed significantly to direct and indirect employment and to the international image of the county. The Regional Spatial and Economic Strategy is aligned with the *Mid-East Regional Enterprise Plan* and the *Wicklow County Development Plan* in supporting the development of the **hub for the screen and content creation sector at Wicklow County Campus in Rathnew**. The *Mid-East Regional Enterprise Plan* also designates the Rathnew campus for the establishment of a regional **Crew development hub for Mid-East and South-East**. In addition to supporting existing and planned studio infrastructure, the crew development hub is expected to organise and deliver skills and talent development initiatives for crew roles in the screen industry, bridge gaps between third level and industry and support experienced industry crew with further skills development and career progression opportunities. Together with the **new media campus in Greystones**, which is set to become Ireland's largest film and TV studio, Wicklow and the East Coast are well positioned to benefit from the increase in production activity in the country, which should also be accompanied by infrastructural investments to enhance its offering. In 2021, County Wicklow was selected by Screen Ireland as one of three movie and TV crew development hubs in Ireland. The **Clermont Screen Hub** in Rathnew provides private and co-working spaces on approximately 900 m^2 aimed to boost job creation in the sector and spin out services feeding into these industries. The hub supports content creation and complements the film industry, with a particular focus on businesses servicing productions happening in Ashford Studios and Ardmore Studios. The regional focus of the hub extends to the counties Wicklow, Dublin, Louth, Meath, Wexford, Kildare, Carlow, Kilkenny, Westmeath, Longford, Laois and Offaly. The Hub also offers a collaborative social space, conference centre, podcast studio and screening facility along with access to a range of existing meeting rooms and training facilities on the larger Clermont campus.
Renewable Energy and Maritime Industries	The maritime sector in Wicklow benefits from a host of assets and activities capable of expansion and development including shore-side services, shipping services, repair and maintenance, fishing, tourism and leisure, servicing of the off-shore renewable energy industry, maritime financial services etc. Established ocean and coastal economic sectors include seafood related enterprise, such as commercial fishing and aquaculture, products of marine

Key Sector	**Policies and Developments**
	biotechnology and bio-discovery, marine tourism, energy exploration and production, maritime transport, shipbuilding, and ship leasing. Wind energy is a significant opportunity area for the county, which has already established itself as a location for offshore wind. There are further opportunities for employment and skills development through the development of operations and maintenance bases. This is a significant opportunity for the redevelopment of brownfield harbour lands. There is potential to develop synergy between the offshore wind and industry and third level institutes. Two of the seven offshore wind projects designated by the government as Relevant Projects due to be advanced under the Offshore Renewable Energy Support Scheme (ORESS1) are off the coast of Wicklow. While planning permission has also been granted for the Arklow Bank 2 Project, the Codling Bank and the Dublin Array have been designated as Relevant Projects and are allowed to proceed to develop planning applications in advance of the adoption of the Marine Planning and Development legislation. Altogether, these projects offer opportunities for employment, investment, supply chain and skills development. In the future, Wicklow could face significant changes with the potential development of marine renewable energy, more specifically wind, following the identification of the Assessment Zone 2 – Wind and Tidal in the Strategic Environmental Assessment (SEA) of the Offshore Renewable Energy Development Plan (OREDP). The *Mid-East Regional Enterprise Plan* targets the establishment **of Marine Enterprise Facilities in the Mid-East** and points to the harbours in Wicklow and Arklow as being well positioned to service the offshore wind industry. Harbours play a crucial role in servicing the offshore wind industry by providing vital support and infrastructure for the development, installation, and maintenance of offshore wind farms. These facilities serve as strategic hubs for various activities such as installation and assembly of vessels and equipment, deployment and maintenance of service and crew vessels and storage for tools and equipment. The establishment of offshore wind farms off the coast of Wicklow including Codling, Wicklow Offshore and Arklow Bank means that utilisation of harbours is crucial in operating the wind farms. The potential **establishment of a Marine Education and Training facility for the Mid-East**, which is another action proposed by the Mid-East Regional Enterprise Plan, could complement other types of training for offshore renewables, such as technician courses and apprenticeships that could be offered on site. This training will be crucial in providing the skills required to potential employees in filling the expected 2,532 direct jobs in offshore renewable energy in Ireland to be created during the development and construction of 3.5GW of offshore wind with the majority of these jobs created between 2025 and 2030. The Regional Enterprise Plan notes that the majority of the pre 2030 jobs will likely be created off the East Coast between Louth and Wexford.
Agri-Food (inclusive of	Agri-food is a significant contributor to Ireland's economy. The sector accounts for 7.1% of total employment or 164,400 jobs including primary production (61,000 in exporting activities supported by the agencies). Outside Dublin and

Key Sector	Policies and Developments
Food and Drinks)	the Mid-East region, the agri-food sector provides between 10% and 14% of total employment highlighting the importance of the agri-food sector to the economy especially in rural and coastal areas.[15] Wicklow has an expanding food and beverage sector that supports 1,081 jobs and aims to boost tourism by marketing Wicklow as a food destination within Ireland's Ancient East.[16] Wicklow's cluster of artisan food processing companies is estimated to be in excess of 50 companies, with potential for further growth. In addition, there is a vibrant food service industry in the county, many of whom are customers of the artisan segment. The projected development of a **food incubation hub in the Rathnew campus** would provide a unique environment for food companies, greatly enhancing their research and innovation capacity and ability to innovate. An undisputed asset for the food and drinks sector is the ***Wicklow Naturally*** food and drinks network. The network is the result of the collaboration of Wicklow County Council, food and drink representatives, the Local Enterprise Office, County Wicklow Partnership and LEADER following the launch of the county's *Food and Beverage Strategy* in 2019. ***Wicklow Naturally*** champions local producers, their products and the businesses that sell and serve those products. Currently, the network has over 100 members with new jobs created yearly. They have launched food tourism tours with a farm-to-fork initiative that has shown producers and farmers ways of increasing their income. Two festivals were also introduced, namely *October Feast* and *Imbolc* that help increase tourist numbers and members sales. These are some of the ways in which Wicklow Naturally aims to boost tourism by highlighting Wicklow as a leading "foodie" destination in Ireland's Ancient East. Following the recommendations set out in the 2019 food and beverage strategy, a feasibility study carried out for Wicklow County Council recommended the establishment of a food hub and incubation units for the county with a focus on the development and support of food businesses in Wicklow. As detailed in the *Mid-East Regional Enterprise Plan*, the Food Incubation Centre will initially have four food production facilities, with the ability to add another four. The centre will also have a development kitchen for product development, training and demonstration. The hub will also incorporate a conference facility to permit presentations to customers and potential investors. Wicklow County Council will be exploring opportunities for funding to prime the development of a **Wicklow Naturally Food Incubation Centre** at Clermont Campus in Rathnew, which will comprise regional infrastructure of scale for agri-food and drinks SMEs including specialist food production units, co-working innovation kitchens, and scaling and growth support services. The focus of the new infrastructure will be to respond to industry needs for food enterprise space and innovation supports to accelerate growth in the regional food and beverage sector.

[15] Department of Business, Enterprise and Innovation (2020). *Focus on Agri-food and Beverages.* Available at: https://enterprise.gov.ie/en/publications/focus-on-sectors-2020.html.
[16] Wicklow County Council (2019). *Food and Beverage Strategy for County Wicklow 2019-2021*. Available at: Wicklow Co Food Beverage Strategy Document Revised 2019.

Key Sector	Policies and Developments
Tourism and Hospitality	Known as the *Garden of Ireland*, county Wicklow possesses immense potential as a tourism destination. Its breath-taking landscapes, including uplands, sandy beaches, and forests, captivate visitors seeking natural beauty. Attractions such as Glendalough, Powerscourt, Russborough, and the new Avondale treetop walk also offer glimpses into Wicklow's scenic treasures. Additionally, Wicklow's thriving film industry adds another dimension to its tourism allure. The county has been a backdrop for numerous film productions, attracting movie enthusiasts who want to explore real-life movie settings, while exceptional food and drink producers in the county offer visitors the opportunity to savour some of Ireland's finest culinary delights. With its rich natural and cultural offerings, Wicklow County presents a uniquely accessible and diverse tourism experience. The key lies in enhancing visitor experience and promoting its remarkable landscapes, heritage sites, film connections, and culinary delights. Therefore, investments in enhancing the visitor experience in and around existing destinations will make the hubs, where the majority of visitor revenue is generated, more appealing, leading to increased time spent in the area and, consequently, higher revenue. Wicklow is well positioned to take advantage of Fáilte Ireland programmes such as *Ireland's Ancient East* and the upcoming *Destination and Experience Development Plan (DEDP)* that delivers new and enhanced visitor experiences, builds greater capacity and capability into the industry, and provides a clear strategy for attracting visitors that will stay longer and spend more. Crucially, though, to be able to deliver this vision, tourism providers need **support to overcome the labour and skills shortages** as well as the **rising input costs** that have affected this sector particularly in the aftermath of the COVID-19 pandemic. For example, as emphasised by the businesses consulted as part of this research, new attractions require skills that are in short supply in Ireland, such as **destination management** and **commercial management of recreation**. Therefore, ensuring that an appropriate supply of skilled workforce is available to tourism providers needs to be at the forefront of tourism strategies to warrant their success.

03

Socio-Economic Profile

3 Socio-Economic Profile

The area considered for the Skills Strategy is the administrative County Wicklow which is subdivided into the five municipal districts (MDs) of Arklow, Baltinglass, Bray, Greystones, and Wicklow. Baltinglass MD makes up the part of the county to the west of the Wicklow Mountains (representing almost half of the entire area). All other MDs are located on the eastern side.

3.1 Population

Similar to the state average, County Wicklow is characterised by a growing population (i.e., net natural change, positive net migration) with gradually decreasing birth rates and increasing death rates. As the average age increases, so does the share of retired and age-dependent persons. The county's population is heavily concentrated in and around the coastal towns of Bray, Greystones-Delgany, and Wicklow, with Arklow and Blessington as additional population centres. Greystones-Delgany (along with Kilcoole and Newtownmountkennedy) and Wicklow (along with Rathnew) have been the fastest growing conurbations in the county and some of the fastest growing in Ireland.

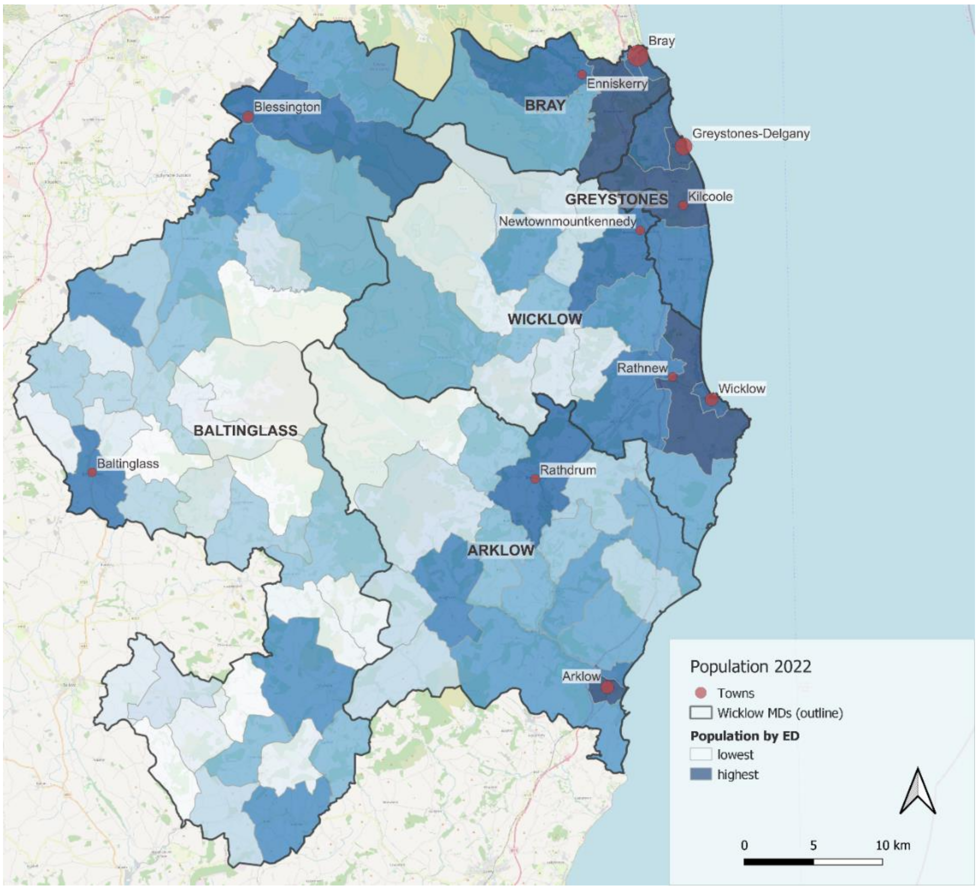
County Wicklow's population stood at approximately 156,000 in 2022 and is projected to increase to approximately 170,000 persons in 2030 (in line with NPF Implementation Roadmap projections), implying an annual migration surplus of approximately 1,250 persons (similar to numbers during the intercensal period 2016-2022).

3.1.1 Current Population and Regional Distribution

As illustrated in Figure 3.1, the population is unequally distributed over the county with the vast majority living in the northern stretch along the coastline. Bray MD and Greystones MD alone contain about 43% of the county's population on just 9% of the county's area. Consequently, the population density in the Arklow, Baltinglass and Wicklow MDs is significantly lower.

With regard to the urban-rural structure, roughly half of the population is concentrated in the five largest towns Bray, Greystones-Delgany, Arklow, Wicklow and Blessington. Four out of the next six towns with more than 2,000 inhabitants (Kilcoole, Newtownmountkennedy, Rathnew, Enniskerry) form contiguous settlement areas with or are in close proximity to its nearby larger towns, thus forming bigger conurbations. The other two towns with more than 2,000 inhabitants (Baltinglass and Rathdrum) are standalone settlement areas.

Figure 3.1: County Wicklow Population (2022)



Population Change and Age Distribution

With an average age of 39.1 years, County Wicklow has a slightly older population than the state overall (38.8 years). Since 2011, the average age has increased by 3.1 years, which represents a higher increase than the State (+2.7 years) and reflects the ongoing demographic transition with decreasing birth rates, low death rates and a steadily falling natural population increase. County Wicklow currently boasts, as does Ireland more generally, a young population compared to the European average.

Between 2011 and 2022, the population of County Wicklow increased by 19,211 persons (+21.6%), significantly outnumbering the population growth of the State which was +12.2% during the same period. However, different factors can be accounted for population increase during this period. Natural increase (i.e., consistently higher number of births than deaths) was at play between 2011 and 2016 and exceeded the slightly negative net migration loss during this time (see Figure 3.2). Conversely, only 40% of the population growth can be attributed to natural increase between 2016 and 2022. As a result of the ongoing demographic transition, the number of births declined while the number of deaths increased consistently between 2011 and 2022 (as shown in Figure 3.3). Nevertheless, since 2016, the estimated net migration turned positive, exceeding the natural increase and accounting for approximately 60% of the population increase over the most recent intercensal period.

The overall population growth from 2011 to 2022 was not evenly spread across all age groups in County Wicklow. Instead, a decrease in absolute terms can be observed in the age groups 0-4 years, 25-29 years, 30-34 years and 35-39 years while all other age groups underwent an increase (as shown in Figure 3.4 and Figure 3.5). Population decrease is therefore prevalent among the groups with the highest age-specific fertility, and it is likely that the decrease in the age group 0-4 years is related.

From the cohort size of the age groups 25-29, 30-34 and 35-39 years it is expected that the decreasing population in the age group 0-4 years will consolidate in the coming years and only start to reverse from the late 2020s when age groups with a larger cohort size reach the age of high age-specific fertility. This reflects nation-wide demographic trends as the state underwent a period of decreasing fertility rates and decreasing number of births from the late 1980s until approximately 2000. It should be noted that above-mentioned trends in average age and distribution of population among specific age groups is also affected by migration surpluses/ deficits.

Figure 3.2 Components of Demographic Change, County Wicklow, 2011-2022

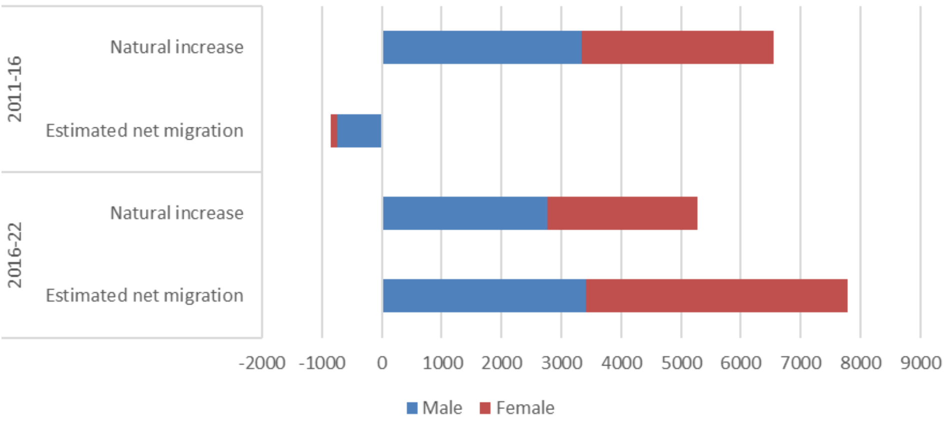


Figure 3.3 Natural Population Change in County Wicklow, 2011-2022

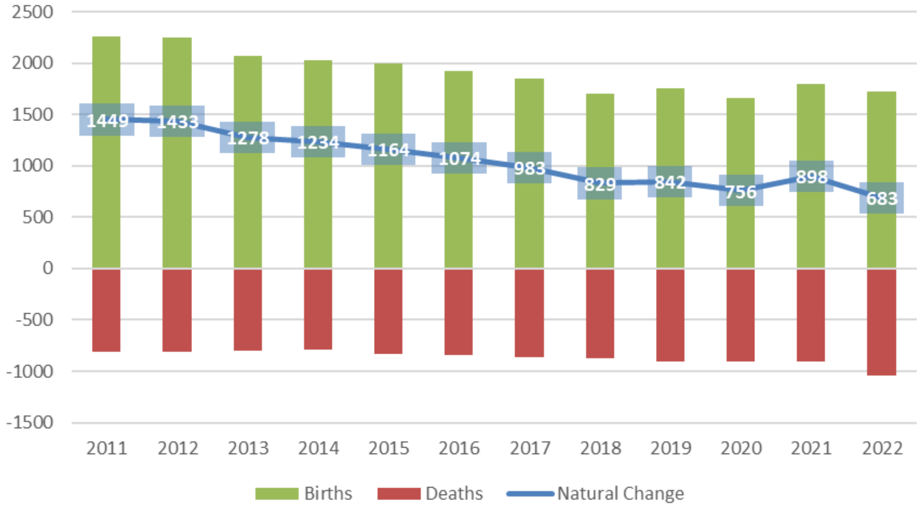


Figure 3.4 Population Pyramid of County Wicklow, 2022 vs 2011

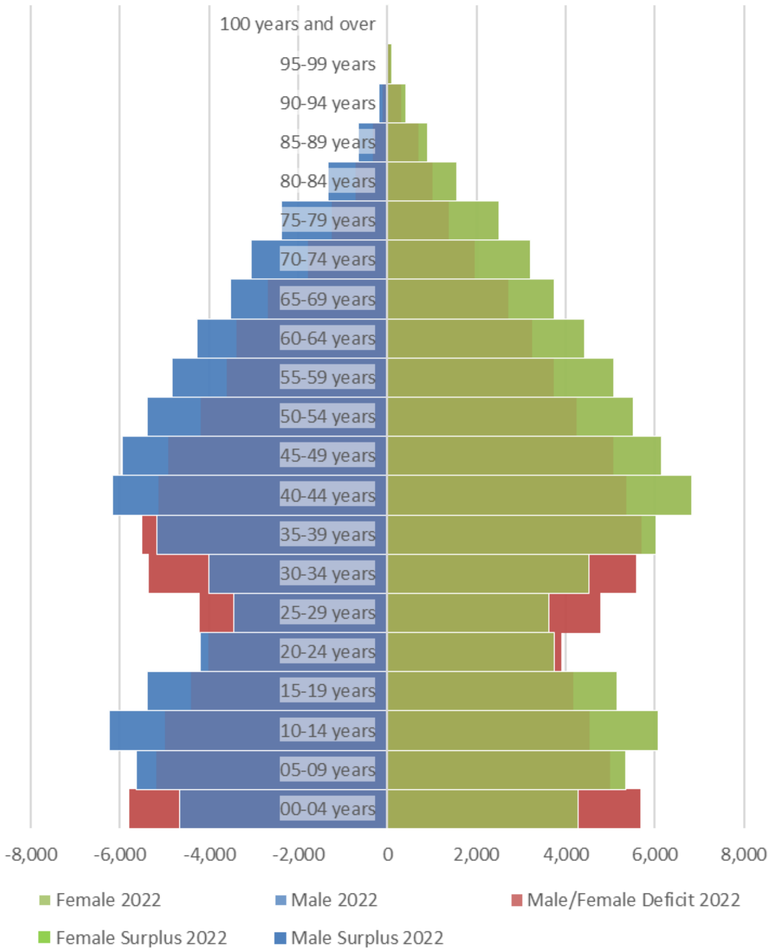
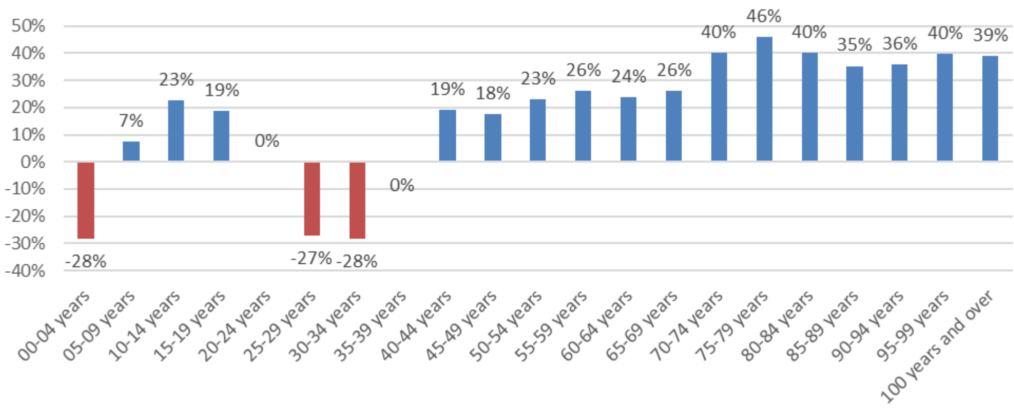


Figure 3.5 Age groups in County Wicklow, 2022 v 2011



Regional Population Change

Population growth varied significantly over the MDs. As shown in Table 3.1, the highest population growth was recorded in Greystones (+22.7%) and Wicklow (+21.9%), with lower population increases recorded in Baltinglass (+10.9%), Arklow (+9.5%) and Bray (+7.4%). A more in-depth look into population change at electoral division (ED) level within the municipal districts is provided in Figure 3.6.

Table 3.1 Population of Municipal Districts in County Wicklow (2022)

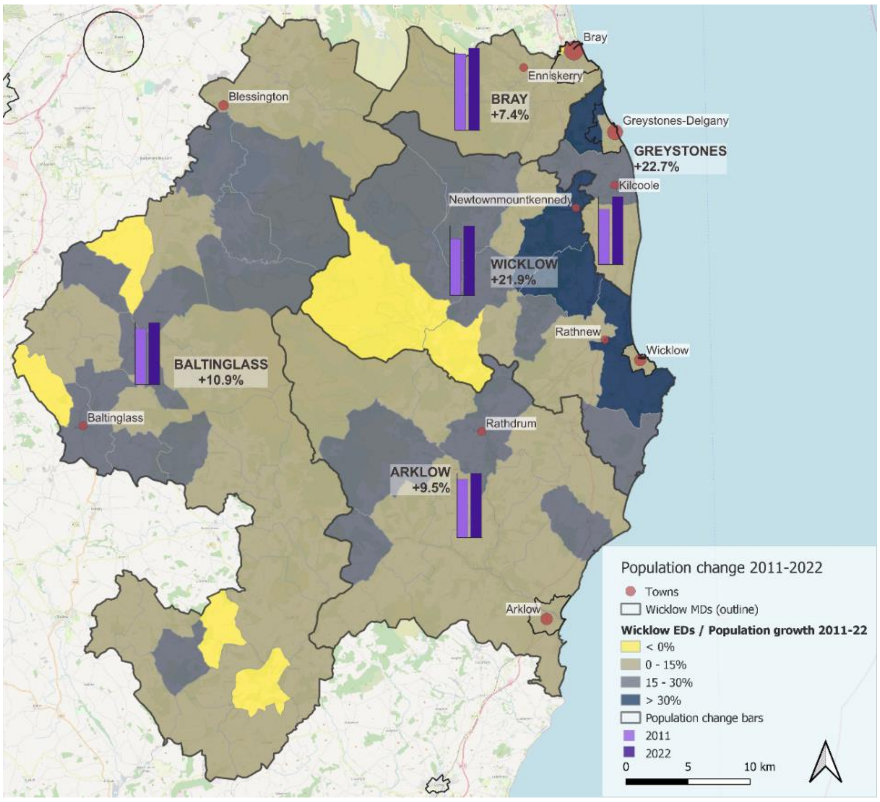
MD	Area (km^2)	Population 2022	Population change 2011-2022	Population density (pers./km^2)	Towns of >2,000 inhabitants
Arklow	486	27,866	+9.5%	57	Arklow, Rathdrum
Baltinglass	916	28,041	+10.9%	31	Blessington, Baltinglass
Bray	124	36,872	+7.4%	297	Bray, Enniskerry
Greystones	65	30,479	+22.7%	469	Greystones-Delgany, Kilcoole
Wicklow	434	32,593	+21.9%	75	Wicklow, Rathnew, Newtownmountkennedy
County Wicklow	**2,025**	**155,851**	**+21.6%**	**77**	

Source: Preliminary Census 2022 data (CSO).

Migration

As a result of increased migration, the population of Ireland in general and County Wicklow specifically has become more diverse. In 2022, a total of 25,897 (16.8%) county residents were born outside of Ireland and 14,726 (9.8%) people were non-Irish nationals. Of the latter, 7,099 persons were citizens of other EU countries (primarily Poland), and 2,897 persons were UK nationals.[17]

Figure 3.6 Population changes by EDs and MDs in County Wicklow, 2011-2022



[17] The 2022 total number of 'usually resident population by place of birth' is 153,988 persons, the total number of 'usually resident population by nationality' excluding 'not stated' is 150,520 persons.

3.1.2 Population Projection 2030

The 2022-2028 County Development Plan cites two projected population figures for County Wicklow for 2031 and using the 2016 Census as a base. The figures are taken from the National Planning Framework (NPF) Implementation Roadmap and represent a baseline variant and a variant that accounts for a 25% headroom for additional migration surplus (upper variant).[18] There are no interim year figures provided for either variant. If a linear projection from 2016 to 2031 is assumed, as shown in Figure 3.7, the projected population growth until 2022 remains under the recorded population for 2022 (i.e. the actual population was higher than envisaged by the NPF).[19] On the 2022 census date, the immigration of refugees from Ukraine had only started, and the majority of the approximately 2,000 – 2,500 refugees that are estimated to be in Co. Wicklow as of June 2023 had not been included.[20]

Using 2022 Census results and applying fertility and mortality assumptions that are based on the assumptions used for the NPF Implementation Roadmap figures, two scenarios are proposed for the county's population trend leading to 2030[21]:

- **Scenario 1 (Zero migration)** projects forward the county's population without taking into consideration any further migration trends (i.e., only natural changes – births and deaths – are considered).

- **Scenario 2 (Baseline)** projects forward the county's population taking into account natural change as well as migration change.

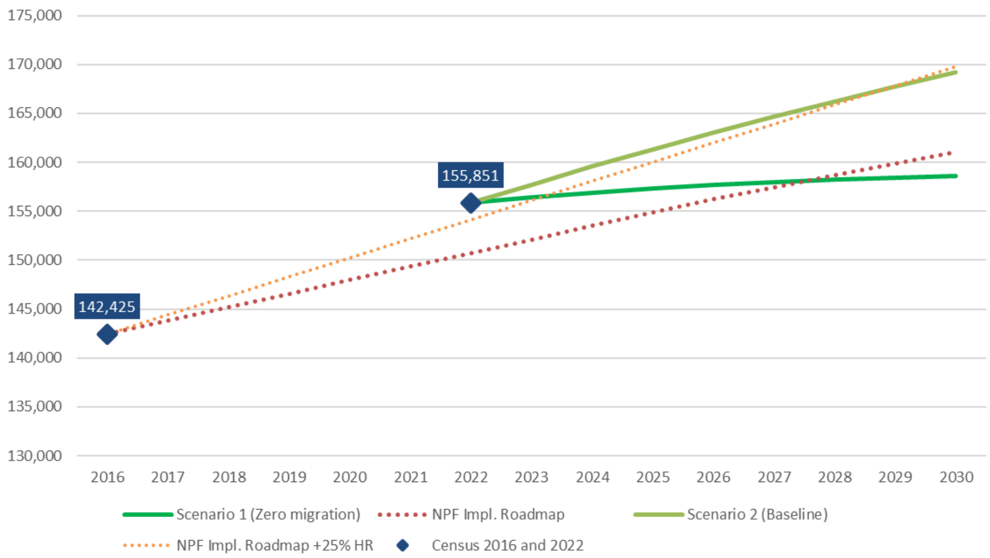
  The assumed migration trend aims to replicate migration assumptions that underly the NPF Implementation Roadmap (upper variant) figures to approximate the trend of this variant.

  With regard to a breakdown of migration trends by age groups, Scenario 2 assumes a net migration surplus for the age groups largely representing families (0-14 and 25-54 years), a net migration balance (zero) for the age groups 55 years and older, and a net migration deficit for the age groups largely representing late and post-secondary education (15-24 years).

Figure 3.7 presents the project population increase according to each scenario. In Scenario 1, the county's population is projected to grow from the 2022 Census figure to approximately 158,600 persons (+1.8%). Scenario 2 projection shows an increase to approximately 169,200 persons (+8.6%)

[18] An update to the NPF Implementation Roadmap figures is expected in 2024 (following the completion of the Census 2022 release cycle).
[19] Linear projections from the NPF Implementation Roadmap yield population figures for 2022 of 150,720 persons (lower variant) and 154,155 (25% Headroom variant) while the Census recorded 155,851 persons.
[20] Number and location (based on PPSN allocations data) of arrivals from Ukraine according to CSO.
[21] Further details on the underlying assumptions of population projections are provided in Appendix11.1.

Figure 3.7: Population Projections for Co Wicklow, 2023-2030



Scenario 2 is used as a 'baseline' trend and shows insignificant deviation from the actual 2016-2022 population trend, being largely in line with the (linearly) projected population growth in the NPF Implementation Roadmap (upper variant). The divergence between Scenarios 1 and 2 until 2030 accumulates to approximately 10,000 persons which represents the net migration surplus required to approximate the NPF Implementation Roadmap (upper variant) figure. This translates into 1,250 persons net migration surplus annually, a figure in line with the annualised migration surplus during the 2016-2022 intercensal period.

The scale of migration, especially among younger cohorts has a significant impact on the size and composition/ageing of the future labour force. A migration surplus, as experienced between 2016 and 2022 and as projected in Scenario 2 will lead to continuous growth and a deceleration of the ageing of the labour force in the coming years. In contrast, a net migration balance (zero) or deficit, as experienced between 2011 and 2016 and as projected in Scenario 1 will lead to a halt to continued labour force growth and to its accelerated ageing.

3.2 Employment

Co. Wicklow is characterised by a diversified economy with agriculture, forestry and fishing being the strongest sector in terms of number of businesses, while wholesale and retail is the strongest sector in terms of employment. Agriculture tends to play a stronger role in the western and southern stretches of the county (Baltinglass and Arklow MDs) while tourism and hospitality have a stronger base in the eastern stretches (particularly Bray, Greystones, and Wicklow MDs). The number of large companies, including IDA companies, remains small.

The county's labour force participation rate is similar to that of the state overall. In recent years, unemployment has significantly decreased while the share (and absolute numbers) of persons at work increased. The rates of youth unemployment and graduates looking for jobs, however, are still challenging. The percentage of persons working for companies of smaller size (micro, small- and medium-sized enterprises) is well above the national average, with larger companies playing a lower role for employment compared to the national level. The number of jobs in IDA companies has fluctuated over the recent years without a clear trend visible. Overall, labour force statistics suggest that employment in screen and content creation, construction, and health and life sciences has increased. While the effects of the COVID-19 pandemic are still being felt, employment in the tourism sector has been recovering. The construction sector, as well as the growing transportation and professional, scientific, and technical sectors are key sectors that are relevant to the renewable energy sector.

The current number of persons in the labour force (approximately 75,000) is projected to grow to approximately 85,000 in 2030, based on the population projections outlined above. At the same time, the age composition is expected to change with more persons of older age being part of the labour force. This expansion creates opportunities and challenges for businesses in the coming years.

3.2.1 Current Employment Profile

Labour Force

From 2011 to 2022, the total number of persons aged 15 years and over increased from 105,468 to 123,597 (+17.2%). Of these, 75,254 persons were in the labour force (61%, Labour Force Participation Rate). In 2016, the total number of persons aged 15 years and over in the labour force increased from 65,581 to 75,254 persons, an increase of 67,737, an increase of 14.7% since 2011.

Table 3.2: Population Aged 15 Years and Over in the Labour Force

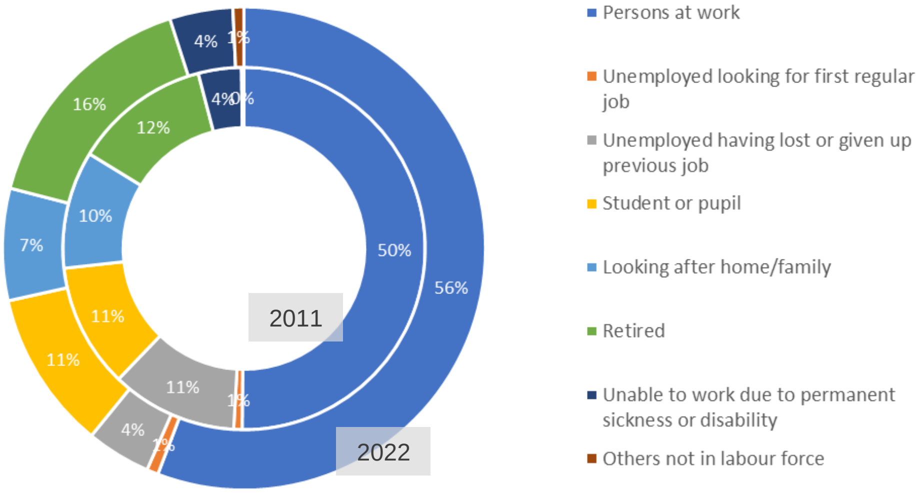
	Number of persons	Percentage Wicklow	Percentage State
Labour Force Participation	75,254	(60.9%)	(61.2%)
(Persons at work)	*(68,971)*	*(55.8%)*	*(56.1%)*
Employer or own account worker	10,889	14.5%	12.2%
Employee	57,984	77.1 %	79.4%
Assisting relative	98	0.1%	0.1%
(Unemployed)	*(6,283)*	*(5.1%)*	*(5.1%)*
Unemployed looking for first regular job	955	1.3%	1.4%
Unemployed having lost or given up previous job	5,328	7.1%	7.0%
Persons Outside the Labour Force	48,343	(39.1%)	(38.8%)
Student or pupil	13,148	27.2%	28.6%
Looking after home/family	9,267	19.2%	17.0%
Retired	19,792	40.9%	41.0%
Unable to work due to permanent sickness or disability	5,232	10.8%	11.8%
Others not in labour force	904	1.9%	1.7%
Population Aged 15 Years and Over	**123,597**	**100.0%**	**100.0%**

The majority of these persons are classified as persons ‘at work’. This category grew disproportionately over the same period from 52,907 to 68,971 persons (+30.4%) and now accounts for 55.8% of persons aged 15 years and over. This change was in line with the national trend. With a 2022 nationwide 56.1% of the population aged 15 years and over at work, Wicklow is on par with the state overall.

The trend of increasing employment corresponds to a fall in unemployment. During the period 2011-2022 the number of persons categorised as ‘Unemployed having lost or given up previous job’ fell from 11,885 to 5,328 persons (-55.2%) while the (smaller total) number of persons categorised as ‘Unemployed looking for first regular job’ increased from 789 to 955 (+21.0%). With an unemployment rate of 5.1% the potential for further reduction in unemployment is low. Business groups generally report Co. Wicklow being on a path to de facto full employment.

The total number of persons aged 15 years and over outside the labour force increased from 39,887 to 48,343 persons, an increase of 21.1%. This is mainly due to a significant increase of the number retired persons from 12,845 to 19,792 (+54.1%). In 2022, retirees accounted for 16.0% of all persons aged 15 years and over. This trend is a result of the ongoing demographic transition that is set to incrementally lead to a higher share of persons in retirement age and fewer people below retirement age (and available for the labour force).

Figure 3.8: Population Aged 15 Years and Over by Principal Economic Status



3.2.2 Current Business Landscape Profile

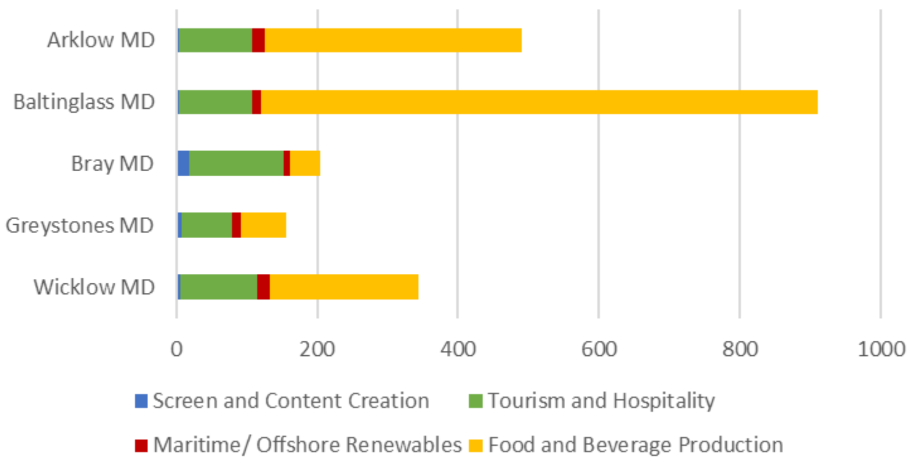
On the basis of Geodirectory data which include approximately three quarter of businesses in County Wicklow, a total of 1,499 businesses operate in the largest sector, Agriculture, Forestry and Fishing. This sector is partly included in the Co. Wicklow key sector ‘agri-food’. A total of 639 businesses were reported to operate in Accommodation and Food Service Activities, partly comprising the Wicklow focus sector ‘Tourism & Hospitality’. Both sectors combined accounted for more than one third of businesses in the county.

Table 3.3: Number of enterprises in County Wicklow (Geodirectory)

NACE REV 2 Sector	No. of Businesses	% of Businesses
A – Agriculture, Forestry and Fishing	1,499	24.4%
G – Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	995	16.2%
I – Accommodation and Food Service Activities	639	10.4%
S – Other Service Activities	632	10.3%
R - Arts, Entertainment and Recreation	344	5.6%
Q – Human Health and Social Work Activities	337	5.5%
M - Professional, Scientific and Technical Activities	335	5.4%
F - Construction	266	4.3%
P - Education	245	4.0%
C - Manufacturing	213	3.5%
N – Administrative and Support Service Activities	169	2.7%
O – Public Administration and Defence; Compulsory Social Security	127	2.1%
H – Transportation and Storage	123	2.0%
K – Financial and Insurance Activities	75	1.2%
J – Information and Communication	72	1.2%
L – Real Estate Activities	51	0.8%
E – Water Supply; Sewerage, Waste Management and Remediation Activities	20	0.3%
B – Mining and Quarrying	9	0.1%
D – Electricity, Gas, Steam and Air Conditioning Supply	4	0.1%
Total	**6,155**	

On an MD level (Figure 3.9), the number of agri-food businesses predominates in Baltinglass and Arklow, while tourism and hospitality account for a significant number of businesses in Wicklow, Bray, and Greystones. The number of enterprises in the screen and content creation industry and enterprises relevant for the maritime/ offshore renewable sector remains low through all MDs.

Figure 3.9: Number of Enterprises based on NACE REV 3 Sector by MDs in Co. Wicklow



Enterprises and Employees

According to the annual Business Demography statistics, the vast majority of active enterprises (94%) in County Wicklow have less than 10 employees (micro enterprises). 6% of enterprises are small and medium-sized enterprises. While the number of micro enterprises has significantly grown between 2019 and 2021 (+14%), the number of enterprises with 10-19 employees has remained constant (+1%) and the number of enterprises with 20-49 and 50-249 employees has decreased by -13% and -10%, respectively. Also, the number of large enterprises in the county has decreased from 9 to 8 over the period from 2019 to 2021. The trends were comparable to those in Ireland as a whole, although micro enterprises in Co. Wicklow have increased at a faster rate over the two-year-period, while the number of larger companies in. Co. Wicklow have decreased at a faster rate.

Table 3.4: County Wicklow Enterprises

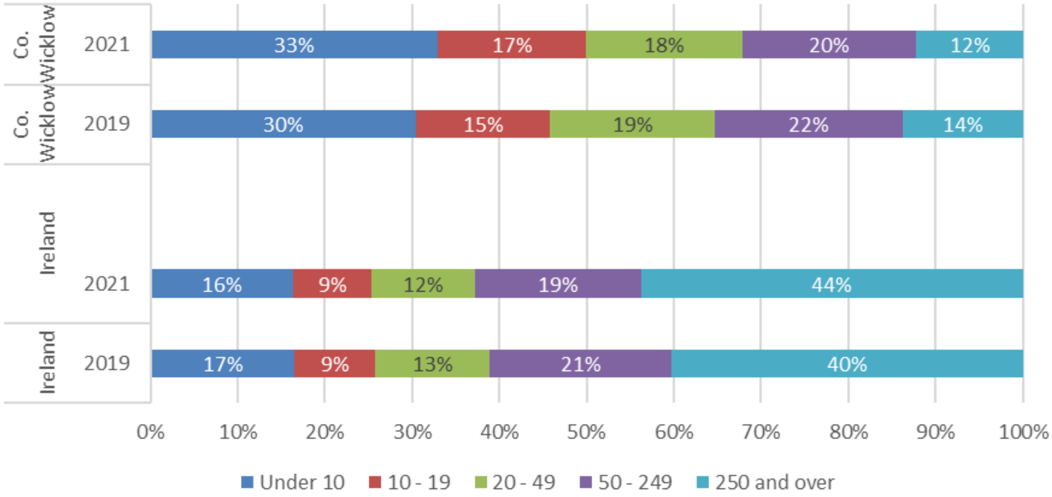
Enterprise size	2019 Co. Wicklow	2021 Co. Wicklow	Change Co. Wicklow	Change national
Under 10 employees	9,128	10,399	+14%	+10%
10 to 19 employees	401	405	+1%	-1%
20 to 49 employees	216	188	-13%	-7%
50 to 249 employees	81	73	-10%	-7%
250 employees and over	9	8	-11%	-5%
County Wicklow	**7,661**	**8,282**	**+13%**	**+9%**

In 2021, about half of employees in County Wicklow were employed in micro enterprises with less than 10 employees and small enterprises with 10-19 employees (50%). This percentage has increased from 45% since 2019. Accordingly, percentages for medium-sized and large enterprises (20 employees and over) have decreased from 55% to 50%.

The distribution of employees contrasts sharply with the overall picture for the state where in 2021 only 25% were employed in micro and small enterprises (down from 26%

in 2019) and therefore 75% were employed in medium-sized and large enterprises (up from 74%). The most noticeable difference between both entities is in employment in large enterprises (250 employees and over) where the percentage for the State is almost four times that of Co. Wicklow. In conclusion, Co. Wicklow's economy is characterised by micro-, small- and medium-sized enterprises.

Figure 3.10: Employees and enterprises



Key sectors for employment in the county are listed in Table 3.5. Between 2011 and 2020, the number of active enterprises has increased by more than 30% in 'ICT activities', more than 20% in 'Information and Communication activities' and 'Arts, Entertainment and Recreation Activities'. Increases of more than 10% were recorded in 'Construction Activities', 'Professional, Scientific and Technical Activities', 'Accommodation and Food Service Activities'. Slight decreases were recorded in 'Wholesale and Retail Trade', 'Repair of Motor Vehicles and Motorcycles Activities' as well as in 'Transportation and Storage Activities'.

The number of persons employed in the various activities yields a more contrasting picture. Significant increases of around 50-80% were recorded in 'Construction', 'ICT' and 'Information and Communication Activities'. 'Professional, Scientific and Technical Activities' recorded an increase of about 30%. Employment also increased in 'Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles Activities' as well as 'Accommodation and Food Service Activities' and 'Transportation and Storage'. By contrast, 'Arts, Entertainment and Recreation Activities' as well as 'Manufacturing' recorded a fall in employment.

Diverging trends in terms of active enterprises and employees are noticeable in 'Arts, Entertainment and Recreation' as well as 'Manufacturing', with higher numbers of active enterprises but lower number of people employed. In 'Transport and Storage' as well as 'Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles' the number of active enterprises decreased while the numbers of employees increased.

Table 3.5: Business demography of selected activities

Activity	Active enterprises 2011	Active enterprises 2020	Active enterprises Change	Engaged persons 2011	Engaged persons 2020	Engaged persons Change
Accommodation and food service	452	516	+14%	3,317	3,671	+11%
Arts, Entertainment and Recreation	389	477	+23%	1,236	1,063	-14%
Construction	1,579	1,883	+19%	2,466	3,906	+58%
ICT / Information and Communication[22]	878	1122	+28%	1,781	3,019	+54%
Manufacturing	483	551	+14%	5,950	4,836	-19%
Professional, Scientific, and Technical Activities	1,320	1,547	+17%	2,284	2,939	+29%
Transportation and Storage	601	546	-9%	997	1,086	+9%
Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles	1,328	1,314	-1%	5,302	6,126	+16%
Selected activities	**7,328**	**8,282**	+13%	**25,165**	**26,646**	+6%

IDA companies and employees

As of February 2023, IDA Ireland registered a total of 1,740 IDA companies in Ireland, of which 20 (1.1%) are registered in County Wicklow. Despite this number being low in national and regional (Mid-East) comparison it has to be noted that the vast majority of IDA companies are concentrated in or around the cities of the country: 53.5% of all IDA companies are in County Dublin, another 11.8% in County Cork, another 7.7% in the two counties Clare and Limerick, 5.5% in County Galway, and 2.6% in County Waterford. These six counties accounted for 81.3% of all IDA companies, with the remaining 335 companies (18.7%) spread over the rural counties if Ireland. Some rural counties, however, particularly County Sligo and County Westmeath have significantly higher concentrations of IDA companies in relation to their populations despite being at a distance from the cities of the country.

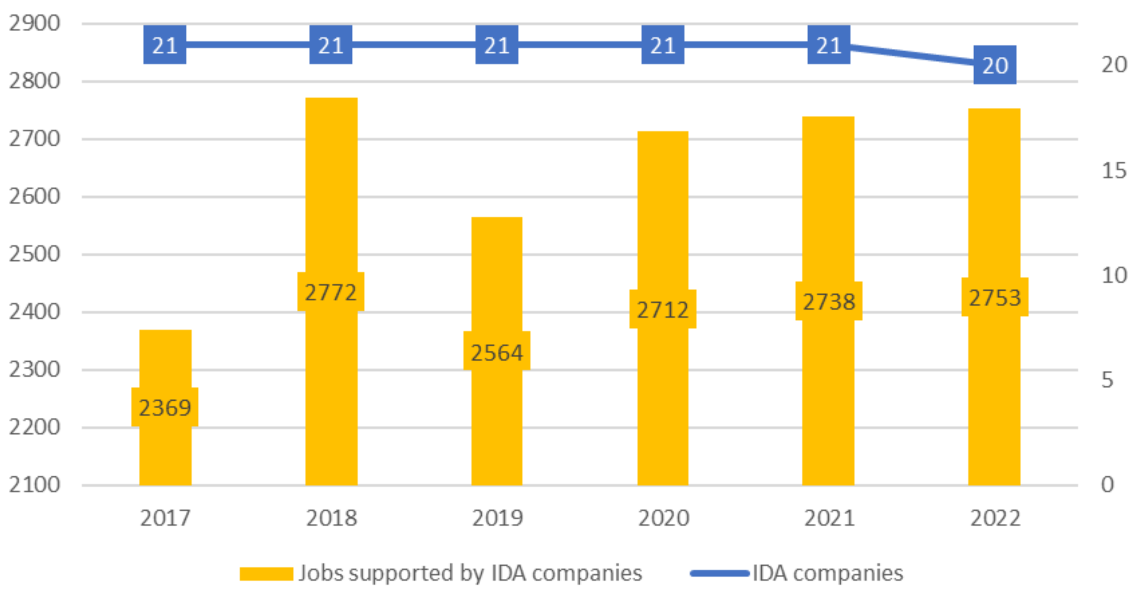
The 20 IDA companies in Co. Wicklow supported 2,753 jobs in the county and span across seven sectors in the 5 MDs[23]. Of the 20 companies, 3 operate in the packaging sector, 7 in the pharmaceutical/medical sector, 2 in electronics, 1 in energy, 5 in manufacturing and 2 in finance. On average, each IDA company supported 138 jobs, lower than the national average of 168 jobs per IDA company. For example, IDA companies in Carlow, Mayo, Kildare, and Tipperary supported more than double the number of jobs than Co. Wicklow. However, these figures might have been distorted due to the low number of companies overall. Between 2017 and 2022, the number of jobs

[22] 'ICT' and 'Information and communication' are considered as two separate NACE categories in the Business Demography statistics provided by the CSO. Due to their similarity, these categories have been merged for the purposes of this report.
[23] A list of IDA companies in Co. Wicklow can be found in Appendix 11.2.

supported by IDA companies in Co. Wicklow increased by 16%, compared to 37% increase at national level.

IDA investment to a large extent depends on the availability of land for IDA investment purposes. Currently, the IDA holds land for potential investment in Arklow MD. The IDA focuses in its 2021-2024 strategy 'Driving Recovery and Sustainable Growth' on a regional property programme with the goal to advance strategic land acquisition in the Mid-East Region which includes Co. Wicklow.

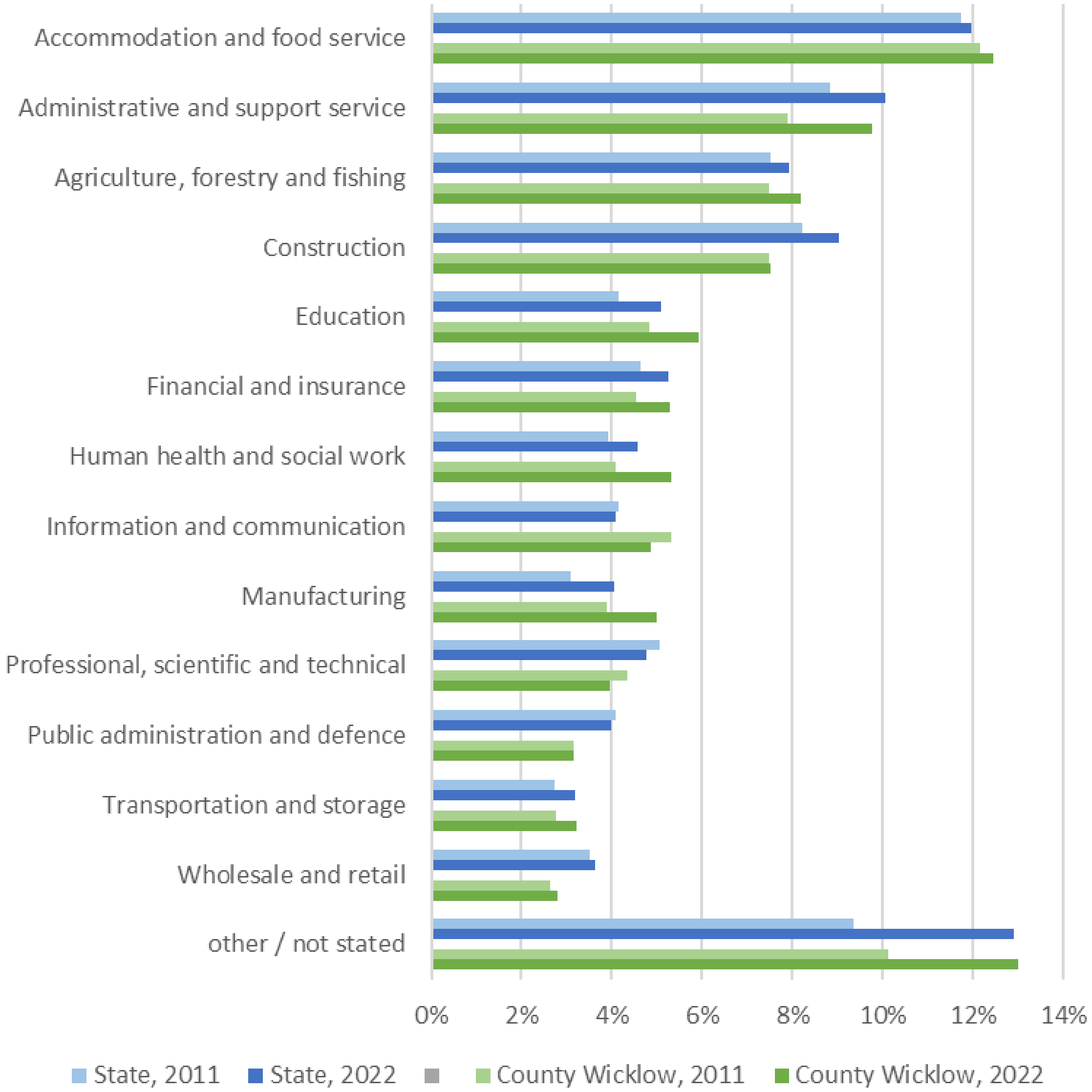
Figure 3.11: IDA companies & IDA jobs in County Wicklow, 2017-2022



Sectoral Employment

As the occupational breakdown shown in Figure 3.12 indicates, employment in Co. Wicklow generally follows national trends. Compared to the national average, a higher share of the work force is employed in the 'information and communication' sector and in the 'professional, scientific, and technical' sector. In contrast, a lower percentage of the work force in Co. Wicklow is employed in 'transportation and storage', 'agriculture, forestry and fishing' and manufacturing.

Figure 3.12 Population Aged 15 Years and Over in the Labour Force, 2011 v 2022



In terms of employment by sector figures shown in Table 3.6, the emerging picture for County Wicklow largely correlates with the picture for the State overall. A total of 33.8% of all 'persons considered'[24] work in the top 10 industrial groups listed in Figure 3.12. Another 9.8% of all persons considered work in seven other industrial groups that have been identified as key to the future development of employment by Wicklow County Council.

[24] 'Persons considered' in this context refers to persons in Detailed Industrial Groups with at least 0.5% of the Population Aged 15 Years and Over in the Labour Force after subtracting all persons falling into the categories 'Unemployed Looking for first regular job', 'Unemployed, having lost or given up previous job' and 'Industry not stated.

Table 3.6 Labour Force by Detailed Industrial Group, 2022

	Detailed Industrial Group	Number of persons	Share of persons	Comparison with State
1	Residential care and social work activities	3,599	5.5%	Higher
2	Computer programming, consultancy and Information service activities	3,073	4.7%	Higher
3	Public administration; compulsory social security activities	2,697	4.1%	Lower
4	Construction of buildings	2,070	3.2%	Higher
5	Retail sale in non-specialised stores with food, beverages or tobacco predominating	1,906	2.9%	Higher
6	Financial service activities, except insurance and pension funding	1,903	2.9%	Higher
7	Hospital activities	1,881	2.9%	Lower
8	Primary education	1,827	2.8%	Lower
9	Secondary education	1,604	2.8%	Higher
10	Restaurants & mobile food service activities	1,546	2.4%	Higher
Other selected Detailed Industrial Groups identified by Wicklow County Council as key to the future development of the employment sector				
11	Basic pharmaceutical products and preparations	1,478	2.3%	Higher
12	Farming of animals; mixed farming	1,472	2.3%	Lower
15	Retail trade	1,304	2.0%	Higher
17	Hotels and similar accommodation	1,103	1.8%	Lower
25	Sports activities and amusement and recreation activities	844	1.3%	Higher
30	Beverage serving activities	758	1.2%	Higher
33	Picture, video & television programmes, sound recording & music publishing	585	0.9%	Higher
48	Medical and dental instruments and supplies	385	0.6%	Lower
54	Creative, arts and entertainment activities	333	0.5%	Higher
	Persons considered in the selected Industrial Groups	**30,368**	**46.4%**	

Notably, the number of persons in the industrial group '**Picture, video and television programmes, sound recording, and music publishing activities**' (585 persons) is considerably above the share of this sector among industrial groups in the state overall (+115%). Other industries that are more significant at county level are:

- **Publishing activities** (345 persons) – 73% above national average.
- **Advertising and market research** (542 persons) – 51% above national average.
- **Sports activities and amusement and recreation activities** (844 persons) – 51% above national average.
- **Real estate activities** (535 persons) – 41% above national average.
- **Financial service activities**, except insurance and pension funding (1,903 persons) – 39% above national average.
- **Creative, arts and entertainment** activities (333 persons) – 32% above national average.

In contrast, the number of employees in three industrial groups were less significant on county level:

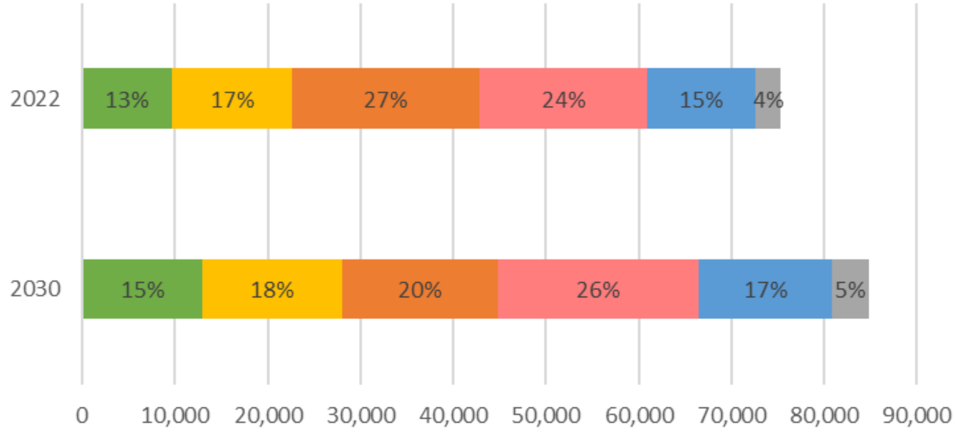
- **Medical and dental instruments and supplies** (603 persons) – 64% below national average.
- **Hospital activities** (1,881 persons) – 32% below national average.
- **Retail sale of clothing in specialised stores** (366 persons) – 32% below national average.

3.2.3 Employment Profile Projection 2030

The labour force will likely continue to expand over the coming years. Along with the expected continued growth of the population (Scenario 2) based on migration surplus and natural growth, as well as an expected continued growth of the labour force participation rate[25], the labour force is projected to grow to approximately 84,800 persons (+12.6%) to 2030 based on 2022 figures. As the population ages, the composition of the labour force changes as well, with fewer persons in the 35-44 years age cohort and increasing numbers in the younger and older age cohorts.

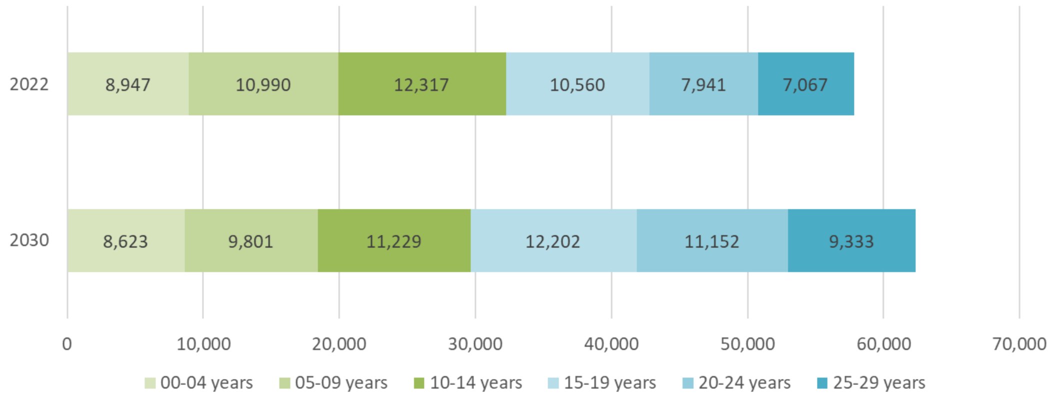
[25] Further details on the underlying assumptions of population projections are provided in Appendix 11.1.

Figure 3.13 Current and Projected Size and Composition of the Labour Force



With the progression of the demographic transition, the projected composition of the population in 2030 (Scenario 2) indicates a further decrease in the younger age groups (0-4, 5-9, 10-14 years) which is likely to have an impact on the numbers of persons entering post-secondary education and the labour force starting in the mid-2030s.

Figure 3.14 Current and Projected Size of Young Age Groups



3.3 Education

The population of County Wicklow is qualified above the national level, with marked differences between areas of higher urbanisation (higher levels of education in the Bray MD, Greystones MD, Wicklow MD) and areas of lower urbanisation (Arklow MD and Baltinglass MD). The county is characterised by a dense network of post-secondary education institutions offering a wide range of courses and training. This includes institutions that are not considered third level but also offer level 6 and 7 courses. There is no third level institution with a full-scale presence in the county. SETU maintains its Lifelong Learning campus in Rathnew (Wicklow MD). An overview of the National Framework of Qualifications (NFQ) and the type of courses offered at each of the ten levels in this framework is provided in Appendix 11.10.

Co. Wicklow students are primarily enrolled in HEIs in the eastern and south-eastern part of the county (Dublin, Maynooth, and SETU Waterford and Carlow). However, this does not include the number of Wicklow students who relocated elsewhere for their education and are thus not registered as students from Wicklow anymore. Compared to Ireland overall, universities in the south-east and east of Ireland (Dublin, Maynooth, Carlow, Waterford) have the majority of graduates in courses relevant to the health and life sciences and the agri-food sectors, about half of the graduates in courses relevant to tourism and the screen and content creation sectors, and less than half of the graduates in courses relevant to construction and engineering, which is also relevant to the renewable energy sector. In recent years, the share of graduates of HEIs in the east of Ireland from courses relevant to screen and content creation and construction and engineering has been declining. This trend potentially signals a competitive disadvantage for employers in these sectors in the future as students might choose to look for opportunities at or near their locations of study.

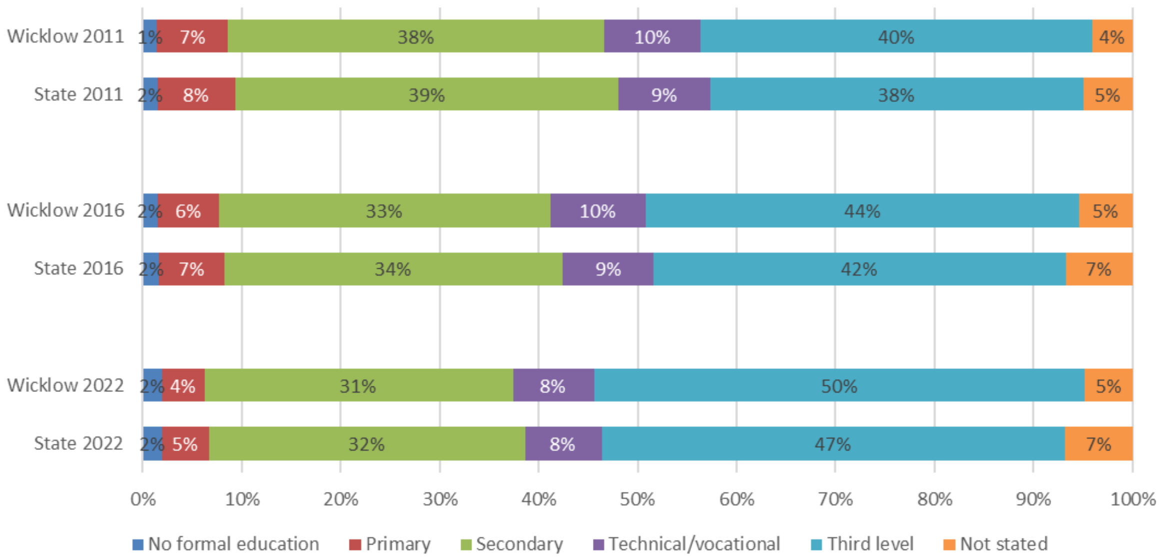
As several positions in the various fields, particularly in tourism and hospitality, agri-food, and construction and engineering do not rely exclusively on HEIs graduates, the student pipeline from these institutions can only give an indication about the future available workforce in this field. A complete picture of the talent pipeline would require graduate statistics from all post-secondary institutions, including further education and training bodies, apprenticeships, formal retraining and upskilling courses, as well as the influx and outflux of labour.

As relatively larger cohorts compared to recent years reach the age of post-secondary education, the numbers of persons potentially enrolling in FET and third-level education is expected to increase in the near term. This provides opportunities for existing and new courses required to meet the market demands in County Wicklow. With the continued expansion of the labour force, older persons with (on average) lower percentages of third-level degrees are being replaced with younger persons with (on average) higher percentages of third level degrees. This is projected to lead to a continuous increase of the persons with a third-level degree in the labour force, potentially leading to challenges for positions that do not require a third-level degree.

3.3.1 Current Education Profile

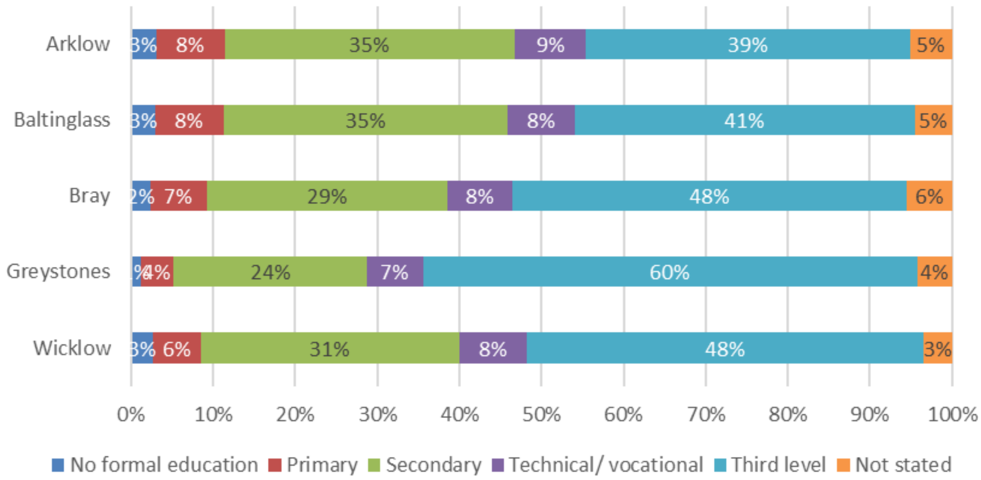
The level of educational attainment in Co. Wicklow has generally improved. Between 2011 and 2022, the share of the population aged 15 and older completing primary, secondary, and technical/vocational education has decreased from 55.0% to 43.7% (see Figure 3.15). Conversely, the level of third level attainment has increased from 39.5% to 49.6%. During the same period, however, the share of the population with no formal education altogether has increased (from 1.4% to 1.9%), while the share of the population that did not state their level highest level of education has increased (from 4.1% to 4.8%). Overall, Co. Wicklow has maintained a slightly higher education level than the State over the 2011-2022 period (approximately 2-3% higher share of the population with a third-level education). As the dataset refers to highest level of education achieved only, any lower level degree that was achieved before completing a third-level degree will not be included.

Figure 3.15 Educational Attainment in Co. Wicklow vs. State, 2011-2022



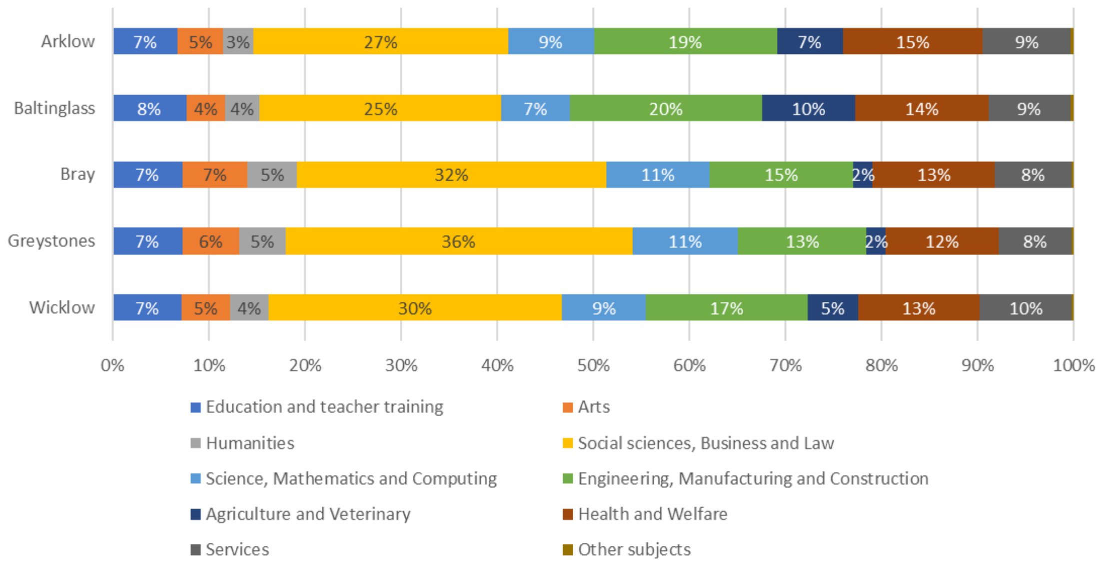
At MD level, Greystones residents had the highest share of third-level graduates in 2022 (60%), followed by Bray (48%) and Wicklow (48%). The lowest levels of third-level graduates were recorded in Baltinglass MD (41%) and Arklow MD (39%).

Figure 3.16 Highest Level of Education, MDs in Co. Wicklow, 2022



The educational background of the population mirrors the predominance of economic sectors in the MDs. In 2016, the percentages of persons who studied 'Arts', 'Humanities', 'Social sciences, Business and Law' and 'Science, Mathematics and Computing' was generally higher in Bray, Greystones, and Wicklow than in Baltinglass and Arklow. Conversely, the share of persons who studied 'Agriculture and Veterinary' and 'Engineering Manufacturing and Construction' was generally higher in Baltinglass and Arklow and lower in Bray, Greystones, and Wicklow (see Figure 3.17).

Figure 3.17 Educational Background – Fields of study (2016)[26]



Higher Education

In 2021, a total of 6,602 students from County Wicklow were enrolled in Higher Education Institutes (HEIs), with the highest number of students at University College Dublin (UCD, 25%) and TU Dublin (20%). South East Technological University (SETU) with its main campuses in Waterford and Carlow, as well as a facility at Rathnew, County Wicklow (12%), and Trinity College Dublin (TCD, 10%) are the third and fourth most popular institutes for students from County Wicklow.[27]

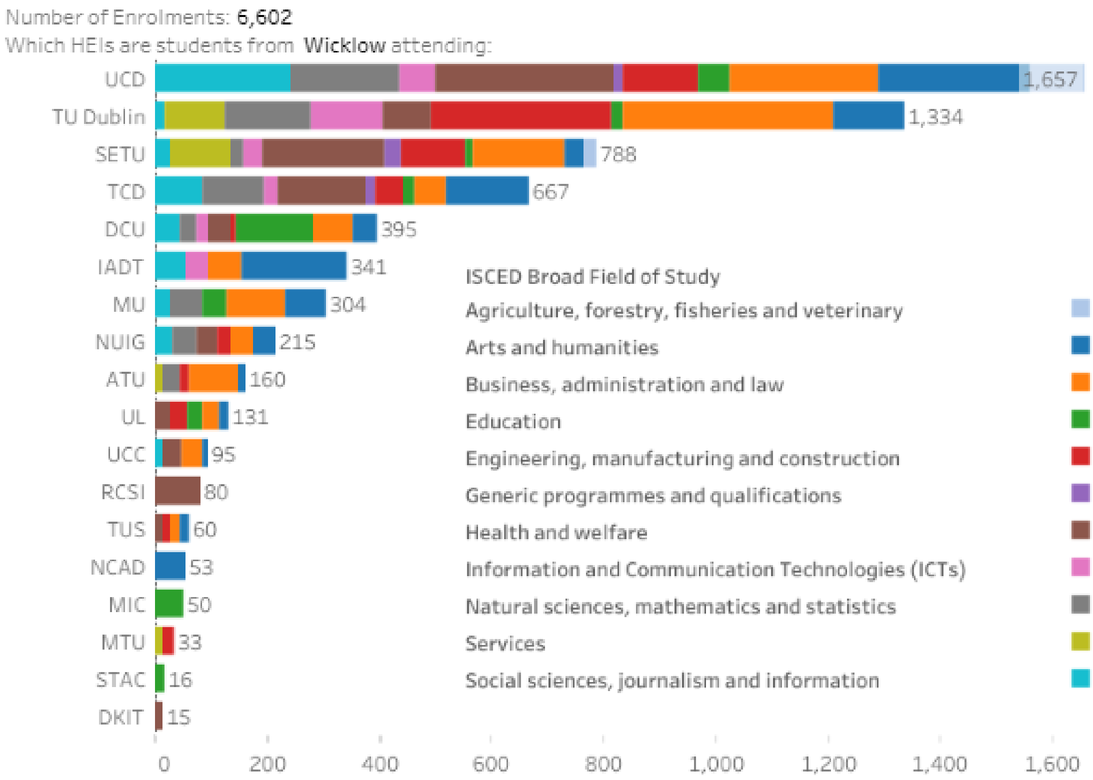
The Higher Education Authority (HEA) provides figures for graduates from courses at HEIs that are relevant for sectors of the economy defined by Wicklow County Council as key to the future employment base of the county. Categorised by ISCED Broad Fields of Study, the majority of Wicklow students are enrolled in courses classified as:

- Business, administration, and law (primarily at TU Dublin, UCD, SETU, MU).
- Arts and humanities (primarily at UCD, TCD, TU Dublin).
- Engineering, manufacturing, and construction (primarily at TU Dublin, UCD, SETU).
- Health and welfare (primarily at UCD, SETU, TCD, RCSI).
- Social science, journalism, and information (primarily at UCD and TCD).
- Natural sciences, mathematics, and statistics (primarily at UCD, TU Dublin, TCD.

[26] 2022 data on Educational Background – Fields of Study at local level not released by CSO as of June 2024

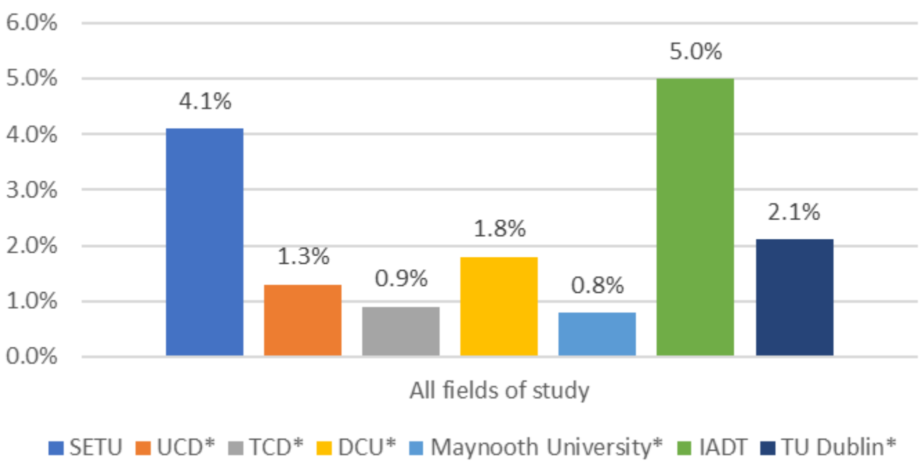
[27] The high percentage of students from Co. Wicklow enrolled at HEIs in Dublin, Waterford and Carlow does not take into consideration students originally from Co. Wicklow who might have relocated to study at HEIs anywhere in the State.

Figure 3.18 Enrolment of Students from County Wicklow in HEIs in Ireland



HEA statistics presented in Figure 3.19 show that approximately 1.1% of all undergraduate honours degrees state Co. Wicklow as their location of employment. There is a marked difference between universities in proximity to Wicklow (particularly IADT, SETU and TU Dublin, and Dublin City University with figures of 5.0%, 4.1%, 2.1% and 1.8%, respectively) and universities further away where percentages are lower.

Figure 3.19 Share of undergraduate honours degrees employed in Co. Wicklow

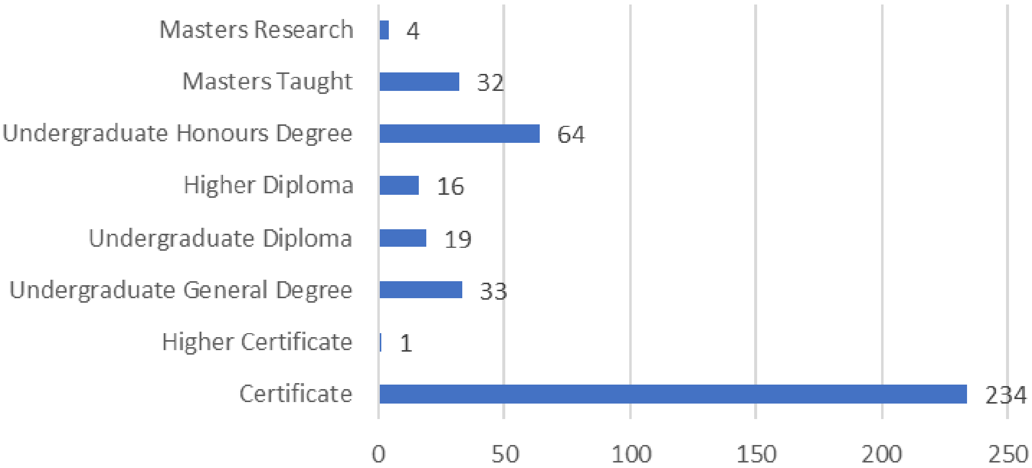


** Estimated Percentages*

Source: [HEI level data (GO 2022) | Statistics | Higher Education Authority (hea.ie)]

Additional data on the number of students enrolled in the courses delivered at the Rathnew campus were obtained from the SETU and shown in Figure 3.20. In the academic year 2022/2023, approximately 60% of the 403 students were enrolled in courses leading to a level 6 degree or lower (Certificate, Higher Certificate), while approximately 40% where enrolled in courses leading to a level 7 degree or higher.

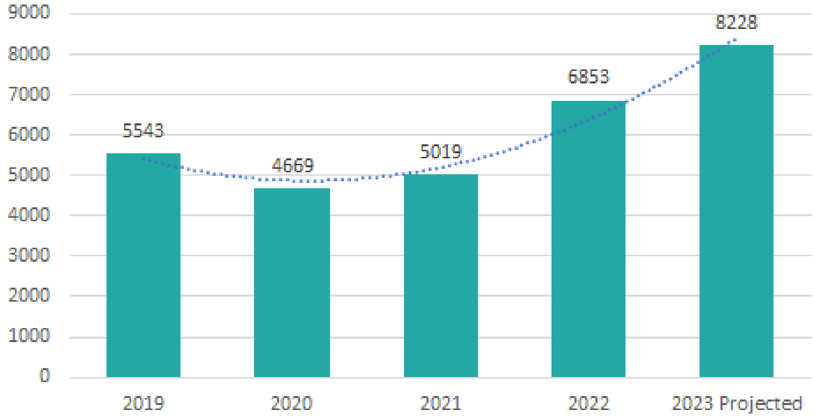
Figure 3.20 Number of Students at SETU Rathnew Campus by Type of Course, 2022/2023



Further Education and Training (FET)

The graduate statistics for the most relevant post-secondary non-third level education institutions in County Wicklow reveal a diversified picture about course uptake (see Figure 3.21). Education facilities registered within the Kildare-Wicklow Education and Training Board (KWETB) have registered a 24% increase in learners between 2019 and 2022. In 2023, KWETB aim to provide further education and training to 8,228 learners in in 2023, which would represent a 20% annual increase from the 6,853 learners who availed of FET from KWETB in 2022.

Figure 3.21 Further Education Training (FET) Learners in Co. Wicklow



As shown in Figure 3.22 the most popular training courses at the KWETB facilities fall into the category of Adult Literacy for Life, followed by Higher Education Progression, Pathways and Employment Progression. Over the past 12 months, the number of learners has increased across all course types except for community education, employment progression and youth provision.

Figure 3.22 FET Provision in County Wicklow

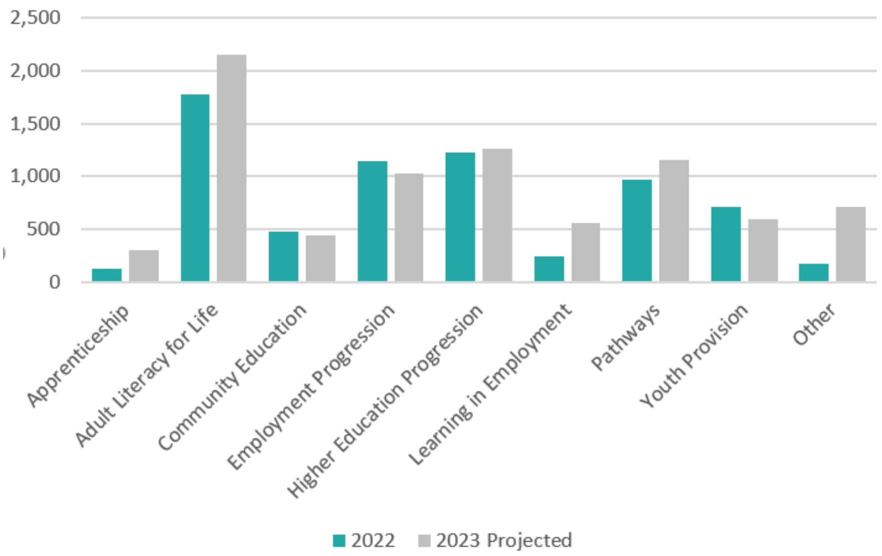
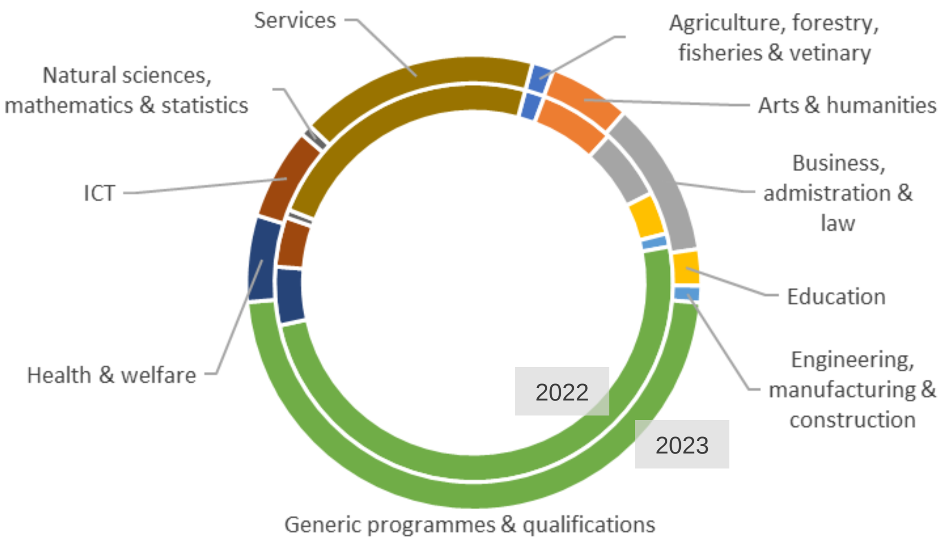


Figure 3.23 compares the number of learners enrolled in Co. Wicklow FET colleges in 2022 (inner circle) and 2023 (outer circle). In 2023, approximately half (47%) of learners were enrolled in 'Generic programmes & qualifications' (i.e., adult learning programmes focused on social inclusion skills, including literacy, numeracy, and English language), another 17% train in the services industry, 11% in 'Business, administration and law', 6% in 'Arts & humanities', 5% in 'ICT', and 6% in 'Health & welfare'. While most fields have remained at a similar level in 2023 compared to 2022, enrolment in courses in the field of 'Business, administration and law' has significantly increased (from 6% to 11%) and enrolment in courses in the field of 'Services' has significantly reduced (from 23% to 17%).

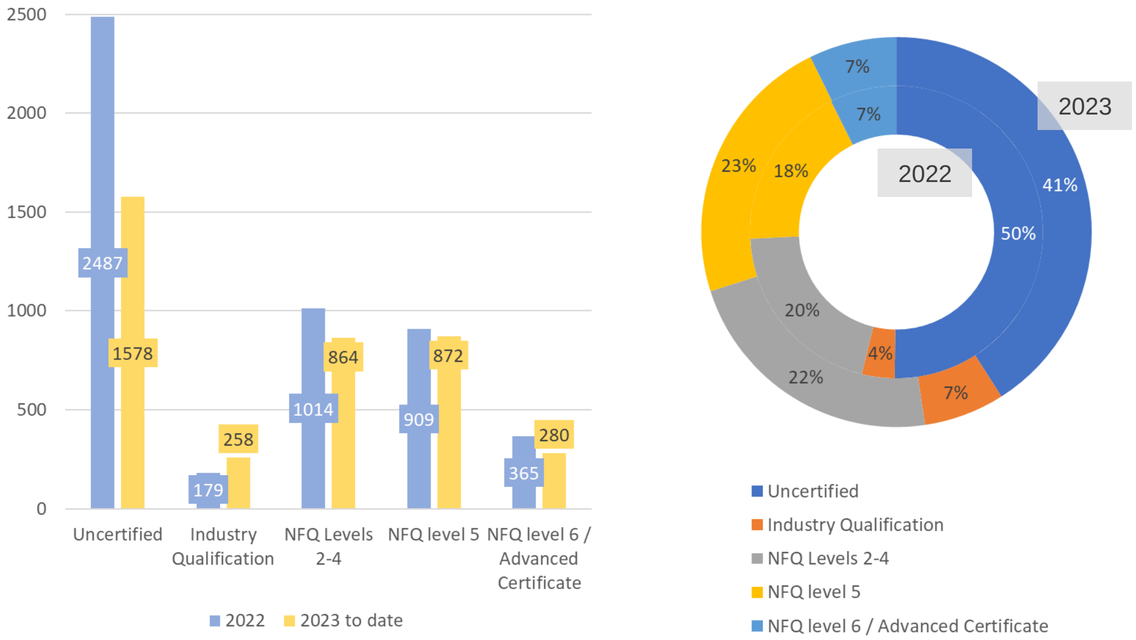
Figure 3.23 KWETB Learners by Field of Learning, 2022/2023



Note: Learners who finished courses in 2022 (outer circle) and 2023 (inner circle) in Wicklow FET Colleges and Centres by ISCED field of learning (excluding Apprenticeships).

Looking at enrolment by NFQ level, in 2022 and 2023 (until October) approximately 46% of learners were enrolled in uncertified courses, 21% in NFQ levels 2-4 courses, 20% in Level 5 courses, 7% in NFQ Level 6 Advanced Certificate courses, and 5% in courses leading to industry-relevant qualifications. From 2022 to 2023, a significant drop is noticeable in learners in uncertified courses (from 50% to 41%), while Level 5 courses (from 18% to 23%) and Level 2-4 courses (from 20% to 22%) and courses leading to industry-relevant qualifications (from 4% to 7%) gained in popularity. This trend points towards indicates an emerging trend towards certified courses.

Figure 3.24 KWETB Learners by Course Level, 2022/2023



Education and Training Providers

Currently, no HEIs operate their main campus in Co. Wicklow. SETU maintains a campus for part-time courses at Rathnew, where it offers a range of undergraduate courses in the fields of Business and Accounting, Humanities, Engineering, PR and Media/ Digital media and Entrepreneurship, Computing, Science and Health, as well as Level 8 and 9 postgraduate courses in these fields (major awards and postgraduate certificates). Several institutions operate in the county that offer Level 4 and 5 courses. Three FET centres (Bray Institute of Further Education, Marine House Wicklow, and Wicklow Further Education and Training Centre) also offer Level 6 and 7 courses. Table 3.7 provides the list of further and higher education providers by municipal district.

Table 3.7 Further and Higher Education Providers in Co. Wicklow

MD	Third level institutions	Further education institutes with third level courses offered	Other post-secondary institutions
Arklow	-	-	Arklow Further Education and Training Centre, Arklow Adult Guidance Service, Avondale Community College (Rathdrum), Gaelcholáiste na Mara, Glenart College, Shelton Abbey,

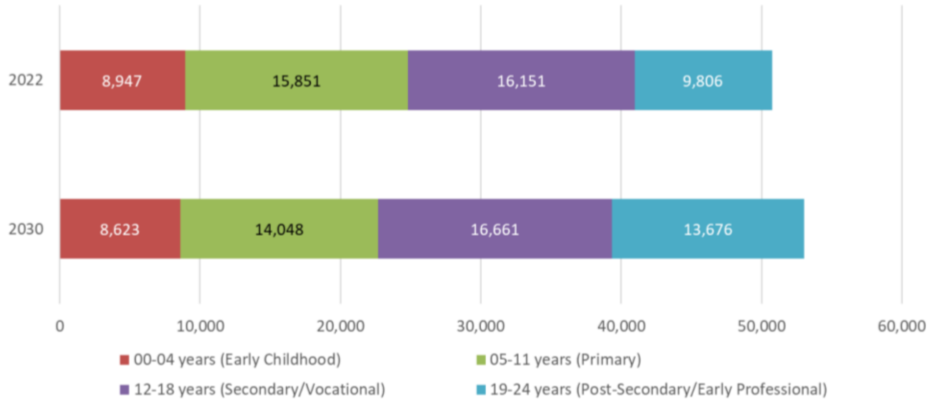
MD	Third level institutions	Further education institutes with third level courses offered	Other post-secondary institutions
Baltinglass	-	-	Blessington & Baltinglass Further Education & Training Centre, Baltinglass Outdoor Education and Training Centre, Blessington Adult Guidance Service, Carnew Further Education and Training Centre, Coláiste Bhríde (Carnew), Scoil Chonglais, St. Kevin's Community College (Dunlavin), West Wicklow Youthreach
Bray	-	Bray Institute of Further Education (BIFE)	Bray Adult Education Centre, Bray Adult Guidance Service, Bray & North Wicklow Youthreach, Coláiste Ráithín, National Learning Network (NLN) – Bray, St. Kilian's Community School
Greystones	-		Greystones CNS, Greystones Community College, Coláiste Chraobh Abhann (Kilcoole),
Wicklow	SETU Lifelong Learning Campus (Rathnew)	Marine House, Wicklow Further Education and Training Centre	Music Generation Wicklow, Youth Development Officer Wicklow

3.3.2 Education Profile – Projection to 2030

As the projected fertility rate remains below replacement level in the long term and larger cohorts reach the age of higher mortality, the natural surplus is expected to shrink by approximately 50% until 2030. Future population growth is therefore increasingly reliant on sustained migration surplus.

Figure 3.25 shows that, while the number of 0-4 year olds is projected to remain stable, the cohort 5-12 years (roughly corresponding to primary education age) is projected to fall because of the significant decline in birth rates over the past decade. The cohorts 13-18 years (secondary education and vocational training age) and 19-24 years (post-secondary education age / early professional life) are expected to increase.

Figure 3.25: Projected Age Groups Corresponding to Early Life Stages



As older cohorts that have lower shares of persons with a third-level education reach the age of retirement and leave the labour force, younger cohorts with higher shares of persons with a third-level education enter the labour force. This leads to a continued increase in the share of persons with a third-level education in the labour force (see Figure 3.26).[28]

Figure 3.26: Projected Share of Labour Force with Third-Level Education

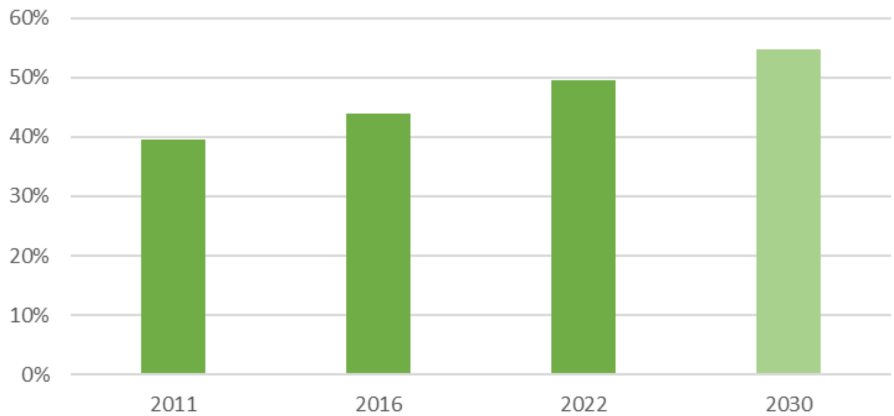
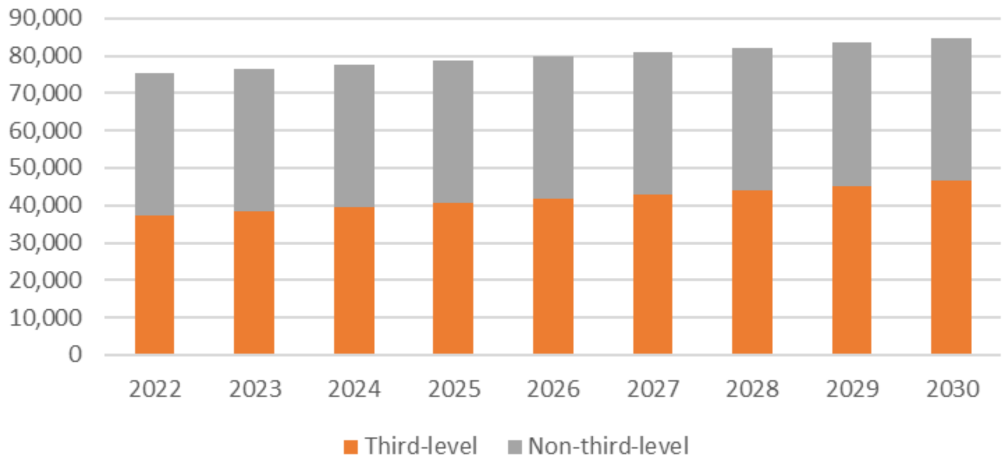


Figure 3.27 shows the projected level of education for the labour force in Co Wicklow to 2030. As a result of the increasing share of employees with a third-level degree, the absolute number of third-level graduates in the labour force is expected to grow by approximately 27% until 2030 (from 37,300 to 47,500 persons) while the absolute number of people without a third-level education in the labour force is expected to grow marginally by approximately 1% (from 37,900 to 38,200 persons).

[28] Further details on the underlying assumptions of population projections are provided in Appendix 11.1.

Figure 3.27: Projected Education Level and Labour Force to 2030



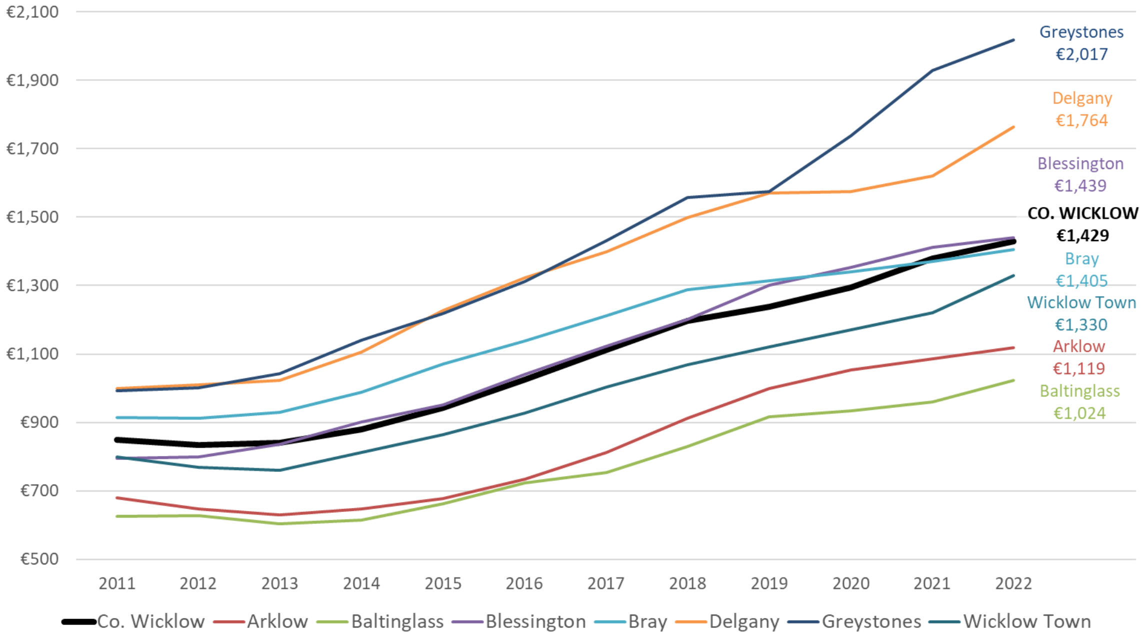
3.4 Housing Market

Average rental housing prices have steadily increased at significant rates in recent years, with Greystones and Delgany having the highest prices and Arklow and Baltinglass having the lowest (approximately 40% below Greystones and Delgany). From 2011 to 2022, volumes of sales have increased at a higher rate in County Wicklow than for neighbouring Co. Dublin. Meanwhile, median prices for residential property transactions have reached comparable levels to Co. Dublin. The trend in increasing rental prices and property transaction prices is expected to continue, albeit at a lower rate than in recent years due to the risks of incoming decoupling and the divergence from price levels in other places outside of the county.

3.4.1 Current Housing Market

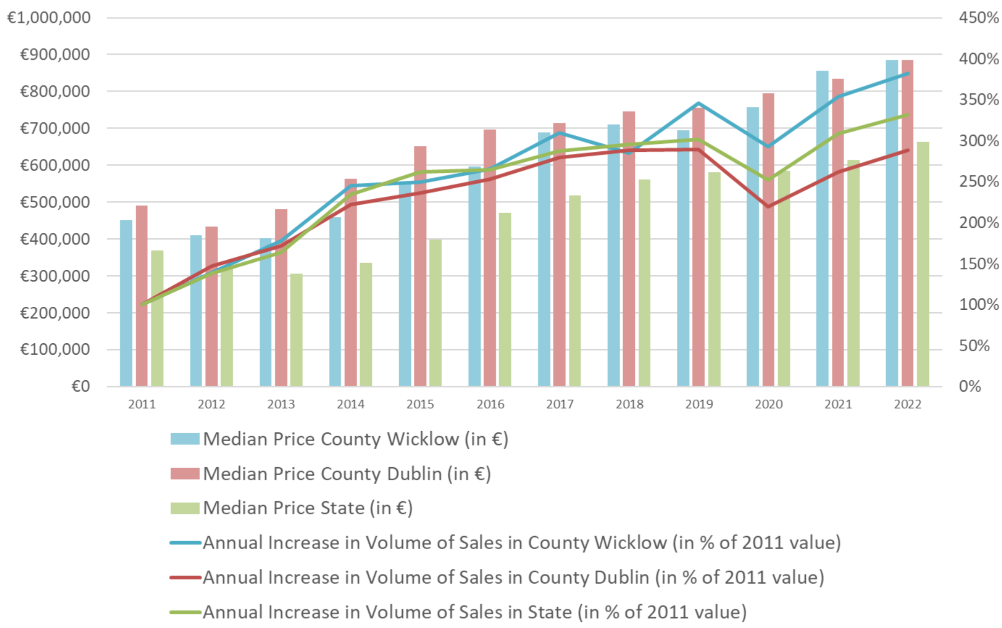
The housing market in County Wicklow can be characterised as highly dynamic. Over the period 2011-2022 rental prices for residential properties have increased between 54% in Bray and 103% in Greystones, and by 68% in County Wicklow overall (see Figure 3.28). As of 2022, Greystones and Delgany had the highest average rent prices, while Arklow and Baltinglass had the lowest. This discrepancy points at the spatial and proximity to or distance from Dublin.

Figure 3.28 Average Rent Prices in County Wicklow, 2011-2022[29]



Over the same period, median prices for residential property transactions by household buyers have increased by 96%, surpassing increases in County Dublin (80%) and Ireland (79%) as a whole (see Figure 3.29). As of 2022, median prices in Co. Wicklow and Co. Dublin were on a similar level, approximately 33% above the national average.

Figure 3.29: Sales and Median Prices, 2011-2022[30]



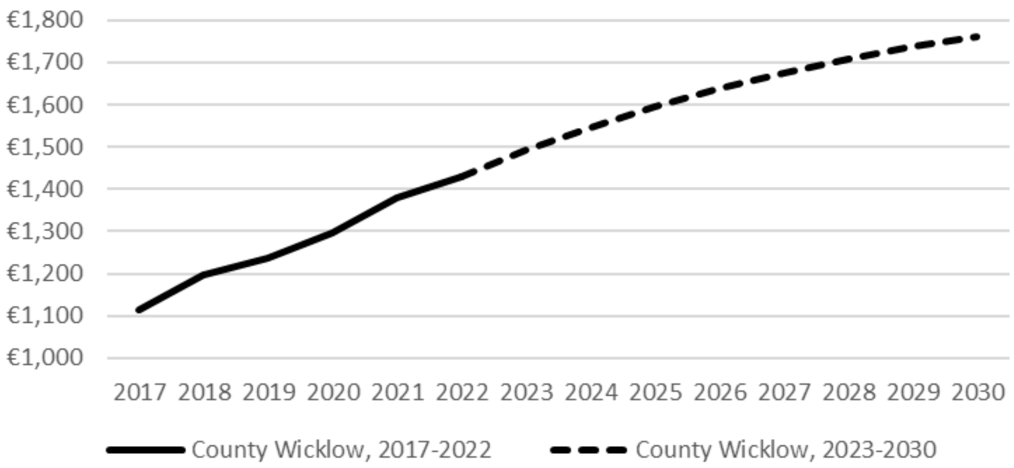
[29] Residential Tenancy Board Average Rent Prices for All Property Types, Any Number of Bedrooms, County Wicklow and Locations in County Wicklow, 2011-2022, Source: CSO.
[30] Volume of Sales and Median Prices for Residential Property Transactions by Household Buyers (Market Sales, executions only) County Wicklow, County Dublin, and State, 2011-2022, Source: CSO

3.4.2 Housing Market Outlook

Future rent price levels, volume of sales and median sale prices for residential properties are the result of supply and demand. Based on trends within the past five years, further increases in rent prices, volumes of sales and median sale prices are expected. Underlying assumptions are an increase in land development for housing and an expansion of the rental property market (supply-side), as well as an increased demand from potential renters and buyers.

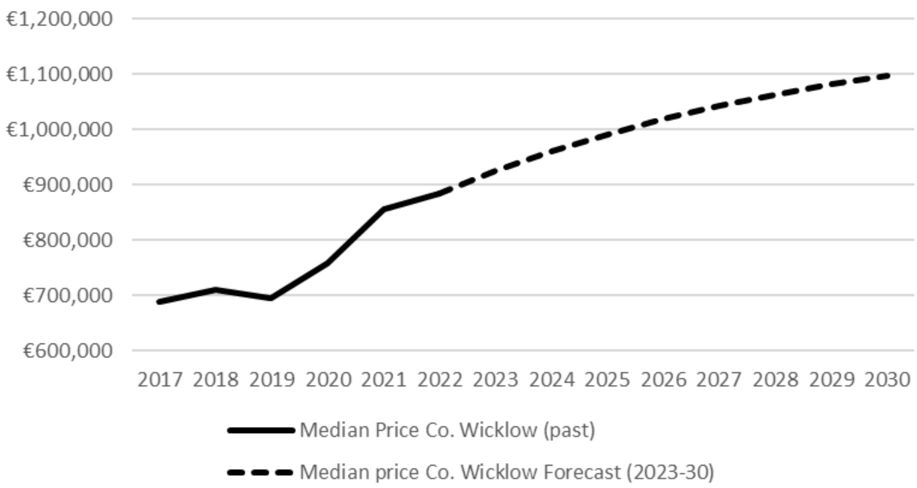
While rent prices in Greystones and Delgany are already significantly above average, further increases will likely be slowed due to increasing risk of decoupling from available income and a divergence from price levels in other places within and outside of the county. In line with the high population growth recorded for Wicklow (Town and MD), demand for residential properties is likely to follow the 2021-22 path and increase above county average. Overall, as price levels continue to increase, there is now a higher probability of a convergence of price levels between major markets (especially Greystones/Delgany, Bray, Wicklow Town). In a County Wicklow forecast of rent price levels that is based on past Residential Tenancy Board prices and assuming a degressive growth factor of 15%, growth is expected to gradually fall from 5.1% (2017-2022 average) to 1.4% (2030), yielding a compound growth of 23.2% or a rent price increase from €1,429 to €1,761 (shown in Figure 3.30).

Figure 3.30 Forecast of rent prices based on 2017-2022 Residential Tenancy Board Prices



As the increase of sales of residential property to household buyers from 2017 to 2022 increased at a higher rate in County Wicklow compared to Dublin and the State, this increase is likely to slow down due to the increasing risk of decoupling from available income and a divergence from price levels in other places outside of the county. In a Co. Wicklow forecast of median sale prices for residential properties that is based on past residential property transactions, and assuming a degressive growth factor of 15%, growth is expected to gradually fall from 5.3% (2017-2022 average) to 1.4% (2030), yielding a compound growth rate of 23.9% or a median sale price increase from €885,000 to €1,096,000 (see Figure 3.31).

Figure 3.31 Forecast of Median Sale Prices for Residential Properties



3.5 Transport and Commuting

Transport connectivity in Co. Wicklow varies markedly by location and mode of travel. Road connectivity is comprehensive across the county although the major second-tier N11 (connecting Arklow, Wicklow, Greystones, and Bray with Dublin through M50) and N81 (connecting Baltinglass and Blessington with Dublin) are often at capacity, leading to systemic delays for private and public transport alike. Bray, and to a lower degree Greystones, are the only major towns served by frequent passenger rail services to/from Dublin, which makes these places suitable for commuting by train. The significantly lower rail connectivity level for Wicklow and Arklow does not reflect the population growth and density in these conurbations, particularly in Wicklow/Rathnew. Given the low frequency of connections, there are currently no reliable train commutes. Blessington, the main town in West Wicklow is not even served by rail infrastructure. The status quo of rail connectivity is a key obstacle to further economic growth and employment opportunities.

There are currently no major investments into road and rail infrastructure planned. The All-Island Strategic Rail Review points to the need for improved rail connectivity from Greystones to Wexford. Current projects focused on the expansion of the cycling infrastructure and renovation of existing roads are unlikely to lead to significant improvements for connectivity in the county.

3.5.1 Current Transport Profile

Private Motorised Transport

East Wicklow and its main settlement areas Bray, Greystones-Delgany, Arklow and Wicklow are served by the M11 motorway connecting Dublin with Wexford and Rosslare Harbour. West Wicklow is close to the M7 and M9 motorways, which run to the west in Co. Kildare and Co. Carlow and connect Dublin with Cork/Limerick and Waterford. Approximately 80-90% of Co. Wicklow’s population lives within 15 km of a motorway.

National Public Transport (Rail and Coach)

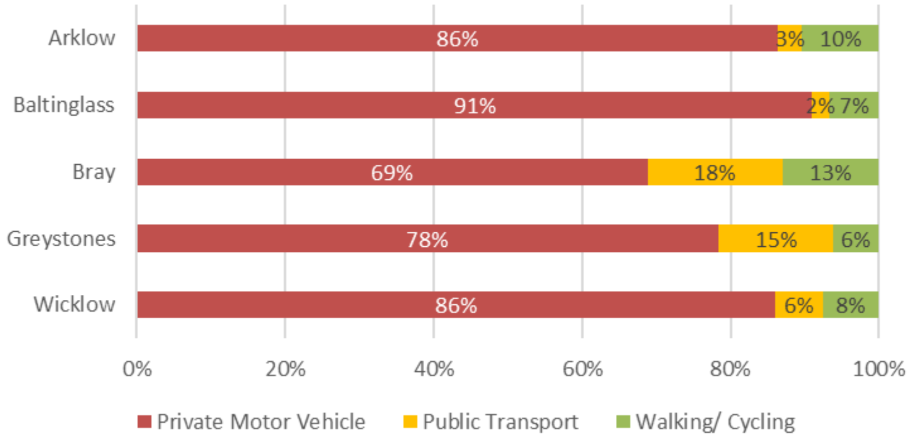
Co. Wicklow is connected by national public transport routes primarily with the major centres in Co. Dublin and Wexford, and to places in Co. Carlow. The coastal stretch is served by the county's only railway, the Dublin-Rosslare railway line connecting Dublin Connolly station with Wexford and Rosslare Europort for passenger services. Stations served along this route in Co. Wicklow are Bray (Daly), Greystones, Kilcoole, Wicklow, Rathdrum, and Arklow. The section between Dublin Connolly and Bray (Daly) is a double-track line, the section from Bray (Daly) to Rosslare a single-track line. The section from Dublin Connolly to Bray (Daly) and further to Greystones is electrified and forms the southern part of the DART commuter train service with frequent departures and arrivals, the section from Greystones to Rosslare is served only by infrequent services. Freight transport is currently not handled on this route. The western part of the county (Baltinglass MD) is not served by rail. Main cross-country coach lines that serve Co. Wicklow are:

- Bus Éireann Expressway Route 2 connecting Dublin Airport/ City Centre with Wexford and stopping in Arklow, operating on an hourly to two-hourly schedule.
- Bus Éireann Local Bus Service Route 133 connecting Dublin City Centre with Kilmanogue, Ashford, Newtownmountkennedy, Rathnew and Wicklow, operating on an approximately hourly schedule.
- Bus Éireann Local Bus Service Route 132 connecting Dublin City Centre with Blessington and Baltinglass 5 times a day, and several other towns (e.g., Kiltegan, Tinahealy, Shilelagh, Carnew).

3.5.2 Current Commuting Profile

Co. Wicklow borders Co. Dublin as the most urbanised region in Ireland. Due to the workplace concentration in Co. Dublin, commuting streams are well-established with more persons commuting from Wicklow to Dublin than in the opposite direction. Figure 3.32 shows the main modes of commuting to work used by Wicklow residents in 2022 (Census). Most people (81%) used private motor vehicles to travel to their place of work, followed by public transport (10%), and walking or cycling (9%). Figures vary significantly between MDs, with a clear correlation visible between DART connectivity in Bray and Greystones, and higher modal split shares of public transport usage in both MDs compared to Wicklow, Arklow and Baltinglass. Bray also features an above-average share of walking/cycling, presumably due to a higher concentration of workplaces within the continuous settlement area of Co. Wicklow's largest town.

Figure 3.32 Usually Resident Population by Means of Travel to Work (2022)



According to the Commuter Study[31], 47% of workers from Wicklow commute to destinations within Co. Wicklow (with Bray and Wicklow Town being the most important destinations), 46% commute to destinations within Co. Dublin, and 7% commute elsewhere. 69% of students from Co. Wicklow commute to Co. Dublin, 15% commute within Co. Wicklow (with Bray being the most important destination), and 16% commute elsewhere.

Work commuters by industry

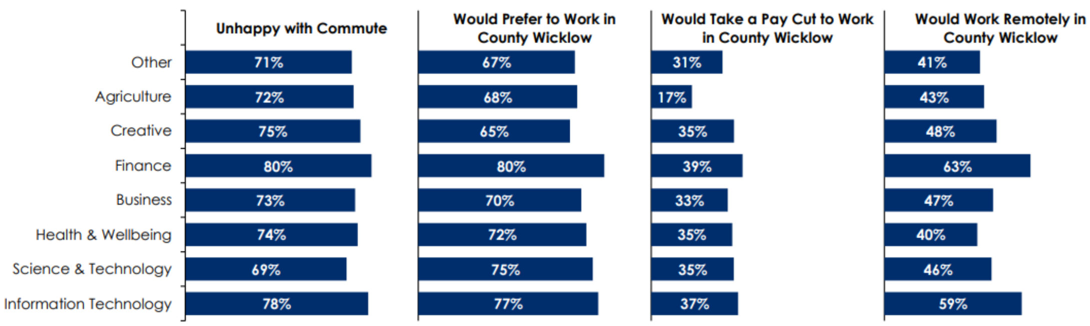
The 2018 Wicklow Commuter Study found that the construction (+18%) and information/ communication/ finance (+15%) sectors saw higher numbers of commuters in Co. Wicklow than in the country overall. Numbers for wholesale/ retail and education/ health/ social work in Co. Wicklow were similar to the State level. Manufacturing / mining / quarrying, public administration / defence / social security, and agriculture / forestry / fishing saw lower percentages of commuters compared to the State overall.

Work commuter satisfaction by job sector

Figure 3.33 provides an overview of satisfaction with work commutes by sector of employment. Finance (80%) and IT employees (78%) had the highest percentages of dissatisfaction with their commute, while people working in science & technology (69%) and agriculture (72%) were the least dissatisfied. Those working in finance and IT also had the highest preferences of working in Co. Wicklow (80% and 77%), with lower percentages recorded for those working in the creative sector (65%) and agriculture (68%). Commuters expressed relatively little willingness to accept pay cuts if that implied a position within Co. Wicklow, with the highest percentages reported for those working in finance (39%) and IT (37%) and the lowest for those working in agriculture (17%). Asked for a preference of working remotely in Co. Wicklow, the highest percentages were recorded for those working in finance (63%) and IT (59%).

Overall, commuters reported to be generally dissatisfied with their commutes (69-80%), had high preferences to work in Co. Wicklow (65-80%), showed little to medium willingness to accept pay cuts to work from Co. Wicklow (17-39%), and showed a medium preference to work remotely from Co. Wicklow (40-63%).

Figure 3.33: Work commuter satisfaction by job sectors, County Wicklow



Source: GAMMA (2018). *Wicklow Commuter Study.*

[31] GAMMA (2019). *Wicklow Commuter Study*. Available at: Commuter Survey Results | Wicklow.ie.

Work commuter satisfaction by education level

The survey also showed generally high levels of commute dissatisfaction across all education levels (70-77%) with PhDs being the most unhappy (77%) and secondary school graduates being the least unhappy (70%).

3.5.3 Transport and Commuting Profile Outlook

The National Development Plan 2021-2030 does not feature any transport infrastructure-related projects in or in relation to County Wicklow.

With the completion of the M11/N11 motorway/dual-carriageway from Dublin to Enniscorthy (- Wexford) in 2019 and the completion of the M9 motorway from Dublin to Waterford in 2010 the eastern and western parts of County Wicklow are well-connected by road. Upgrades to the N81 road from Tallaght to Hollywood Junction are being discussed but are currently not prioritised.

Currently, there are no plans for changes to the provision of rail and coach services in relation to County Wicklow. The All-Island Strategic Rail Review (2023) points at the need to improve rail connectivity between Dublin, Wicklow and Wexford in the light of the increased integration of the Dublin/Bray area and the growing importance of Rosslare Europort post-Brexit. Given the significant geographical constraints, no major construction projects are proposed, instead focusing on short-term service improvements through the introduction of 'hourly shuttle services between Wexford and the end of the DART route at Greystones'[32]. As of September 2023, there is no political decision regarding the implementation of the proposal.

The National Transport Authority is implementing the Greater Dublin Area Cycle Network Plan (2013) through planning and constructing of various greenways, cycle links between towns and villages, cycle route links with public transport, as well as parking infrastructure. A total of 488 km of cycle network was proposed as part of the Plan.[33]

With the absence of major road and rail infrastructure projects, and the gradual implementation of cycle route infrastructure projects, no significant shift in the Modal Split is expected until 2030. Considering the increase in bike usage, including electric bikes and bikeshare options, and pending the implementation of all major cycle infrastructure projects, small gains for the category 'walking/cycling' can be expected.

[32] Department of Transport and Department for Infrastructure, All-Island Strategic Rail Review, p.54.
[33] National Transport Authority, Draft Greater Dublin Area Cycle Network Plan, p. 60.

3.6 SCOT Analysis

	Demographic, Housing and Transport Profile	Economic Profile – Key Economic Sectors	Education / Skills Development	Employment Landscape
Strengths	• Increasing population in all MDs. • Attractive place for immigrants (net migration surplus). • Young population (with net natural population increase). • Polycentric settlement structure. • Good transport connectivity (Bray & Greystones).	• Diversified micro- and SME-based economy spread over all MDs. • Increasing production, spending and employment in screen and content creation sector. • Local networks collaboration in food and drinks sector. • Base for offshore wind energy.	• Dense network of post-secondary non-third level institutions. • Courses offered for the relevant economic sectors in the county. • High level of third level graduates, particularly in urbanised areas.	• Growing employment trend in screen and content creation, construction, agri-food, sectors relevant to renewables. • Low overall unemployment. • High percentage of workforce in micro-enterprises and SMEs.
Challenges	• Declining birth rates. • Weak transport connectivity outside of Bray and Greystones. • Dissatisfaction among commuters.	• Few large-scale businesses. • Lack of strategic tourism focus. • Lack of attractiveness of positions in seasonal employment with non-standard work hours (tourism, screen).	• Lack of full-scale higher education institute in the county (but notable presence of SETU in the Wicklow County Campus located in Rathnew).	• Mixed employment trend in tourism sector with difficulties to fill positions particularly post-Covid. • Youth unemployment.
Opportunities	• Population growth centres are not limited to the largest settlements, with growth spreading south.	• Growing screen and content creation sector, supported by government, emerging industry hub in Wicklow Town. • Sectoral growth opportunities if sectoral issues are tackled (housing, transport).	• Health and life sciences, food and drinks – High and increasing share of HEIs graduates in close proximity to the county. • Potential increase in students due to projected cohort sizes.	• Growing population and proximity to Dublin means access to larger workforce. • Projected continuing labour force growth.
Threats	• Increasingly expensive housing market • Continuing above-national-average population growth leads to further strain on transport infrastructure.	• Potential lack of non-third level education labour. • Shortage of qualified personnel (agri-food, tourism & hospitality, forestry). • Risk of sectoral decline if structural issues are not tackled (housing, transport).	• Screen, manufacturing, and construction – Decreasing share of HEIs graduates in close proximity to the county.	• Decrease in IDA companies and large-scale companies bears risk of losing jobs. • Proximity to Dublin risks losing workforce to employers in Dublin.

04 Stakeholder Consultation & Industry Engagement

4 Stakeholder Consultation and Industry Engagement

The overarching aim of this research is to identify, formulate, and plan a strategic approach on how to match current and future market demand with skills development and build a long-term sustainable strategy. This requires a detailed understanding of the views and experiences of key stakeholders in Co. Wicklow, including those representing the four economic sectors singled out by the Skills Taskforce (film, food and drinks, tourism, and renewable energy), relevant public officials and representatives from national and local business networks. To glean these insights, this study undertook a series of stakeholder engagement exercises, as elaborated within this section. Specifically, this stage of the research included the following core elements:

Online Employers Survey   *The employers survey focused on the skills demands, existing gaps, and opportunities arising in a broad range of sectors and competencies. The aim of this engagement was to build up a detailed understanding of existing economic sectors and their growth potentials, as well as the qualifications of the workforce available in the county, demographic trends regarding the workforce, and future needs of employers. The survey was published on Wicklow County Council's online consultation platform between June 19 – Sept. 30, 2023. During this time, 65 companies filled in the survey.*
Online Workforce Survey   *People living and working in County Wicklow were also invited to fill in a survey that focused on the commuting and employment experiences in the county, including the impact of Covid-19 pandemic on commuting patterns, preferred working arrangements and workforce mobility. Similarly, to the employers' survey, the public survey was published on Wicklow County Council's online consultation platform from June 19th to September 30th, 2023[34].*
Roundtable Discussions   *Seven roundtable discussions were held with members of the Wicklow Skills Taskforce, business networks and representatives of the food and drinks, tourism and hospitality, film, and renewable energy sectors. Nearly 40 organisations were represented at these meetings.*
Interviews   *The roundtable discussions were supplemented with 30 semi-structured interviews with representatives of key economic sectors, business networks, and community organisations as well as education and training institutions.*

[34] The detailed summary of results was compiled for the benefit of Wicklow County Council but has not been included in this report for data privacy reasons. Overall, these responses pointed towards a high and increasing volatility in the job market. Some of the most cited reasons are lack of flexibility to work remotely, mismatch of qualifications with job profile, high cost of living in the county, availability of childcare, transportation, local amenities, and other public infrastructure. The perceived mismatch of qualifications indicates the need to provide (further) education and job coaching. On the other hand, affordability and availability of infrastructure are key enabling factors for job creation and retention. While employer-specific conditions (e.g., salary levels) may be one underlying reason for this deficiency, the role of public institutions in facilitating living and working in the county (i.e., investment in placemaking, housing, transportation, childcare, etc.) has also been highlighted.

The core stakeholder groups, including the businesses and organisations contacted, are outlined in Appendix 11.3 together with the means of engagement pursued.

4.1 Employers Survey

The online survey (as well as the roundtable discussions and interviews) broadly captured the views of Wicklow employers across several economic sectors. A limitation of this research is the extent to which certain sub-groups are represented within the results. For example, certain groups (such as retail, IT, life sciences, trades and crafts) proved more difficult to reach and as such, are underrepresented in the data. Conversely, sectors such as screen and content creation, food and drinks, tourism and offshore wind are overrepresented compared to the role played in terms of current employment and economic output in Co. Wicklow. As such, the results serve not to demonstrate representative views of all stakeholders, but to highlight several key thematic challenges and opportunities facing skills demand and supply across the county's economy.

Business Sectors Represented

A total of 65 responses were received to the employers' survey with the broad sectoral breakdown shown in Figure 4.1. Of the 65 respondents, the most represented sectors included food and drinks production (18%), screen and content creation (14%), tourism and hospitality (14%) followed by renewable energy and maritime industries (11%), and manufacturing and engineering (11%). Notably, nearly two-thirds (62%) of the respondents indicated that their companies were not clients of the Local Enterprise Office, Enterprise Ireland, or the IDA Ireland (see Figure 4.2).

Figure 4.1: "In which sector does your company/organisation operate?" (N = 65)

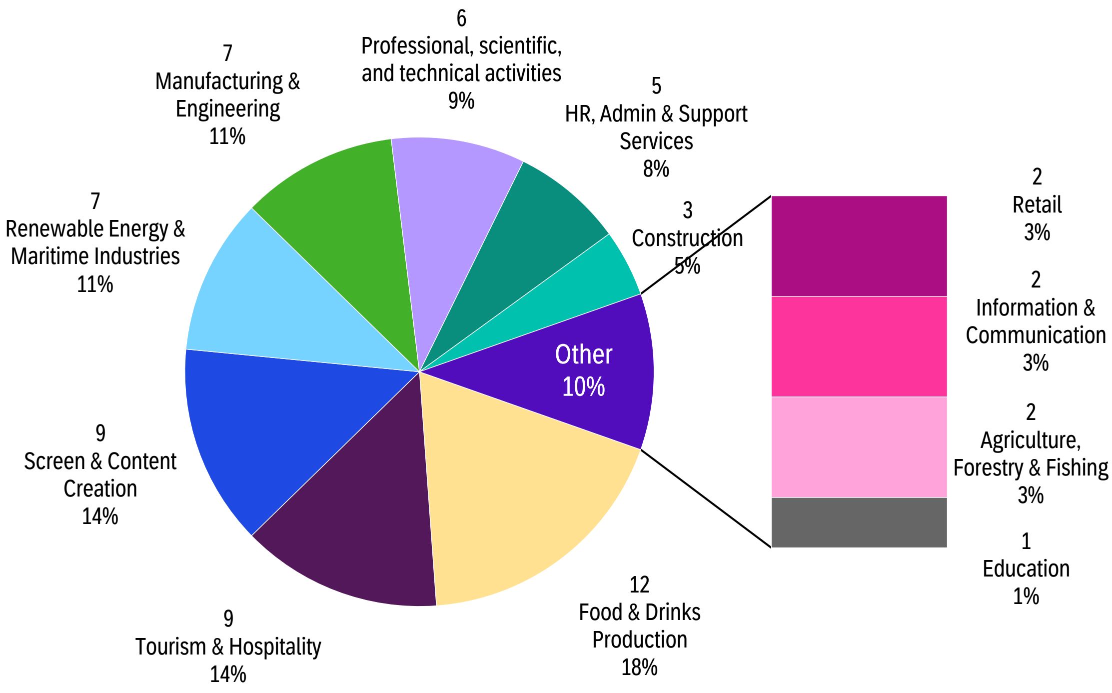
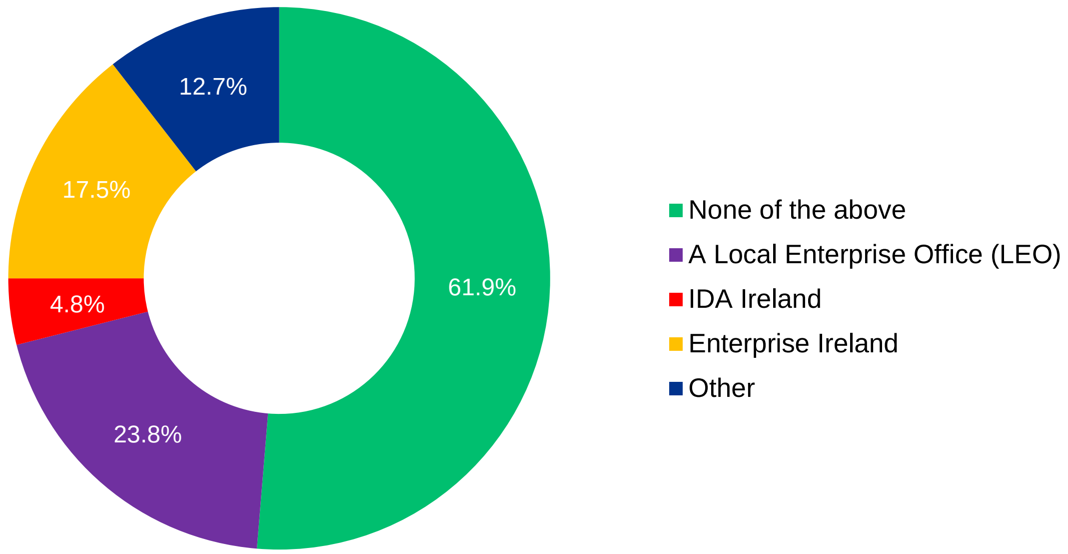


Figure 4.2: "Is your company a client of any of the following?" (N = 63)



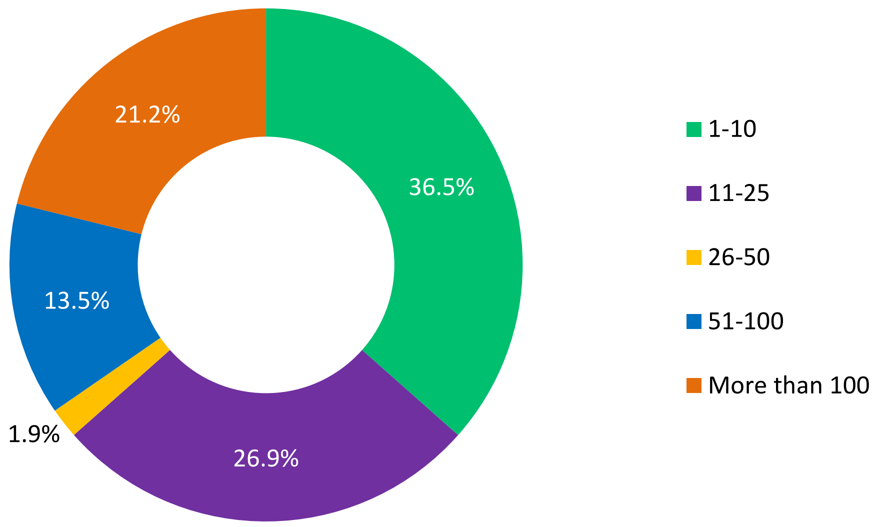
The local companies' low level of engagement with these organisations indicates the need for increased efforts to raise awareness about the business supports and investments that members / client companies can access. Membership of these organisations is even more important when it comes to accessing skills-related support, such as critical skills assessment or workforce planning. As not many SMEs have HR departments that can deliver skills assessment and planning, participation to programs such as *Spotlight on Skills* run by Enterprise Ireland, or the business development food programmes delivered by the LEO is critical for these companies' ability to prepare their workforce for the future.

Business Size

The majority of businesses surveyed are small and medium enterprises[35]. As shown in Figure 4.3, nearly 37% are micro-enterprises that employ less than ten people and 27% have between 11 and 25 employees. Notably, while 15% of the enterprises have between 26 and 100 employees, 21% of the survey respondents have more than 100 staff. Moreover, four respondents are large companies with over 250 employees (i.e., RWE Renewables, SSE, Powerscourt Hotel and Coillte). Note the overrepresentation of the medium and large companies in the survey compared to their presence in Co. Wicklow, where 94% of the active enterprises are micro-enterprises. Therefore, the survey results are likely to provide a good illustration of the skills shortages that companies of various sizes are confronted with in Co. Wicklow.

[35] CSO defines SMEs as companies with less than 250 employees. SMEs are further split into micro enterprises with less than 10 persons engaged, other small enterprises with between 10 and 49 persons engaged and medium sized enterprises with between 50 and 249 persons engaged.

Figure 4.3: "How many people does your organisation directly employ?" (N = 52)



New Employees Recruitment

Over the past year, 82% of the companies surveyed (i.e., 42 out of 51 respondents) recruited new staff. The majority (53.5%) of these companies hired less than five new staff over the previous year (Figure 4.4). More than two-thirds (70%) of the companies that hired new staff over the past year stated that 76-100% of their staff were hired from within Ireland (Figure 4.5).

Figure 4.4: "How many new staff have you recruited within the past 12 months?" (N = 43)

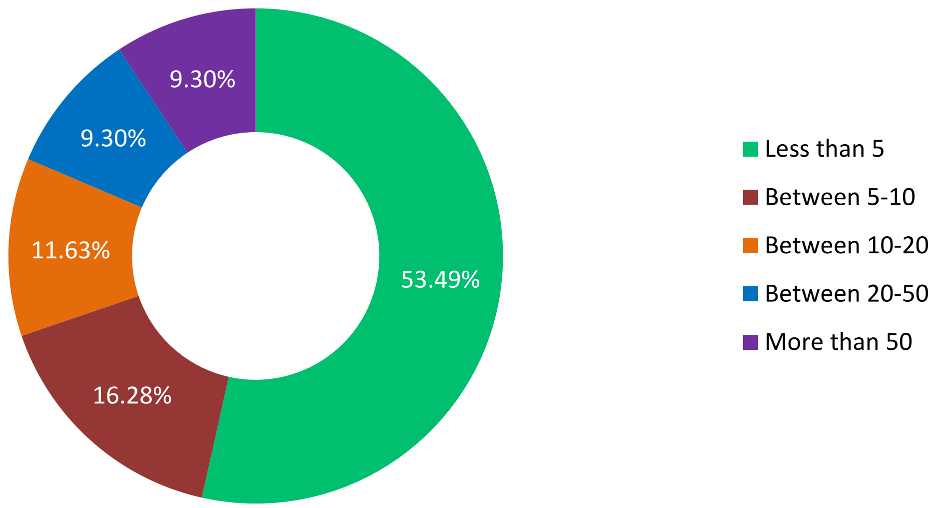
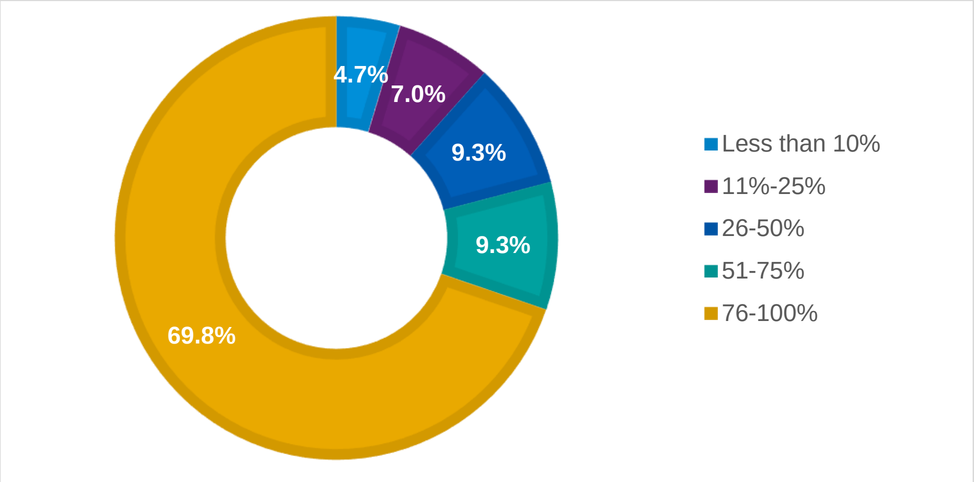


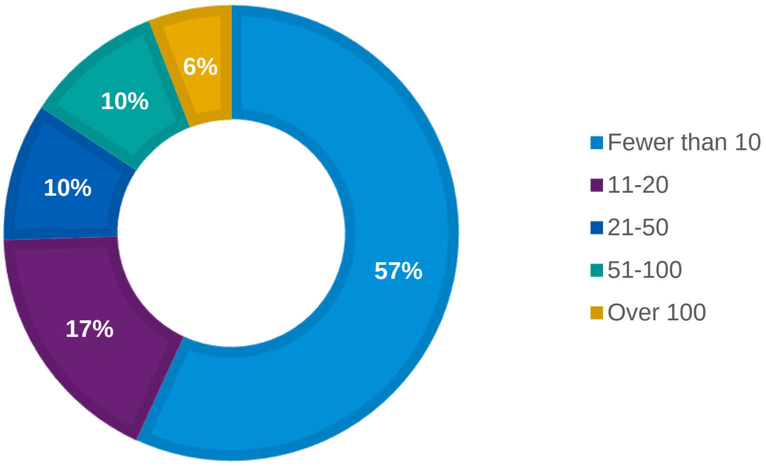
Figure 4.5: "What percentage of these staff were recruited from within Ireland?" (N=43)



The level of new staff recruitment varies with company size. All small and medium enterprises (i.e., employing more than ten staff) hired new people over the previous year, unlike 50% of the micro-companies who had not recruited any new staff. Moreover, 84% of companies employing 50 or fewer people hired less than five new staff, while the remainder 16% hired between five and ten new employees. Conversely, only 11% of the medium and large companies hired five or fewer new staff, while nearly one quarter (22%) hired 50 or more new people. While limited, these statistics may underline a trend of micro and small businesses struggling to attract workers due to the constraints in the labour force.

Similarly, when it comes to future hiring, an aggregate view indicates that the majority (57%) of companies expect to hire fewer than ten employees over the next five years Figure 4.6. This percentage increases to 75% for micro and small companies (i.e., less than 50 employees), while the majority of medium and large enterprise anticipate they will hire more than 20 new employees in the next few years.

Figure 4.6: "Can you estimate the number of additional employees that will be required for your company over the next five years?" (N=51)



Skills Shortages

Nearly **80%** of business respondents confirmed the existence of skills shortages in their current workforce. The issue becomes more challenging with company size, ranging from **63% for micro companies**, to **80% for small businesses** and **94% for medium and large enterprises** (i.e., more than 50 employees). Those who are not experiencing skills shortages are typically very small companies, often freelancers and one-person companies or very small family businesses who do not actually have employees or are not looking or perhaps not affording to hire more people.

The full list of roles that survey respondents highlighted as being difficult to fill for each sector are included in Appendix 11.4.

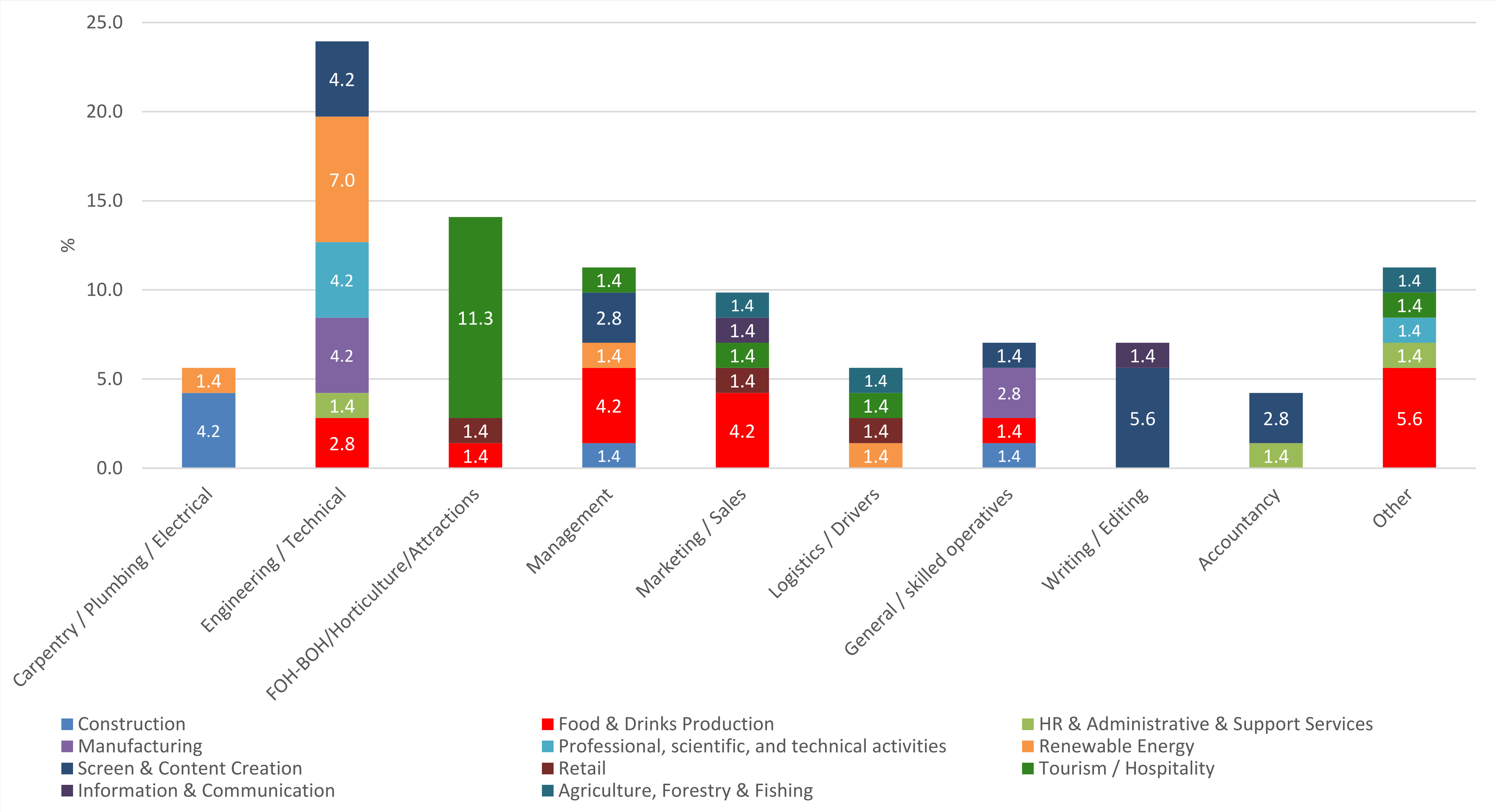
Figure 4.7 presents the broad categories of skills shortages that were identified across economic sectors. Skills that were mentioned by less than three respondents are included in the "others" category. Each bar indicates the level of demand for a certain skill category. For example, "Carpentry/Plumbing/Electrical" was identified as a skills gap by 5.6% of respondents, of which 4.2% represented the construction sector and 1.4% the maritime, engineering and renewable energy sectors.

As Figure 4.7 shows, certain **categories of skills are in high demand across economic sectors**. Specifically, <u>engineering and technical skills</u> were singled out by nearly one quarter (23.9%) of respondents across sectors such as food and drinks, screen and content creation, maritime, engineering, renewable energy, manufacturing, professional, scientific, and technical activities and HR, administrative and support services. <u>Management, (digital) marketing and sales</u> were also highlighted by food and drinks producers, agriculture and forestry, tourism and hospitality, maritime, engineering, and renewable energy, construction, screen and content creation, retail, and information and communication. The need for <u>general (skilled) operatives</u> was mentioned by representatives of construction, food and drinks producers, manufacturing, and agriculture and forestry representatives.

Other **skill gaps are specific to certain sectors**, such as <u>front and back of house (FOH-BOH) and tourist attractions staff</u> for the tourism and hospitality sector. Another category is that of **sectors with a more varied range of skills shortage** – for example, food and drinks respondents indicated staff needs in the areas of engineering, technical, FOH-BOH, horticulture, management, marketing and sales, and general / skilled operatives.

The skills gaps included in the **"other" category** – which were mentioned by a wide range of sectors such as food and drinks producers, agriculture and forestry, tourism and hospitality, HR and administration, professional, scientific, and technical activities – include beekeepers, forestry professionals, skills in traditional craft (e.g., use of traditional lime mortar and scything), communication and inter-personal skills, customer relations, food hygiene training and food safety compliance, health and sustainability, lean six sigma, and legal staff.

Figure 4.7: Skills Shortages Across Economic Sectors



Employee Replacing and Retaining

Most businesses (83%) also confirmed that they experience challenges to replace or retain personnel with key skills for their sector, with this difficulty increasing to nearly 95% for medium and large enterprises. A few common themes emerged as to the specific challenges that respondents faced, as detailed below.

Challenges faced to replace or retain personnel with key skills	
Limited Labour Pool	Respondents highlighted the lack of a local talent pipeline in their sectors, which makes it difficult to replace key personnel that were trained in the workplace. To bridge the talent gap in emerging sectors, such as renewable energy and offshore wind, respondents suggested the introduction of work placement programmes, apprenticeships, and third level courses to equip graduates with the skills needed in the job market.
Lack of Training or Experience	The lack of a fully trained workforce, as well as a pipeline of emerging new entrants, was highlighted by representative of high growth sectors, such as **offshore wind** and **film**. These sectors highlighted the lack of a pipeline of emergent new entrants, the international competition for these skills and the requirement to attract and retain talent. In a competitive environment, one respondent highlighted, *"a lot of talent is required to come from UK and further afield with offshore wind experience".* Within the **renewables** space, the existence of a relatively small pool of experienced people leads to strong competition for their recruitment. For example, automation engineers were singled out as sought after, with both offshore wind and pharma industry competing for them – *"as we bring apprentices through the system, they are being head hunted by the pharmaceutical industries here locally and are also emigrating".* Similarly, representatives of **film** companies highlighted that the lack of skilled crew is a threat for the expected accelerated growth of this sector in Wicklow in the near future, given the addition of the new studio campus in Greystones, the new major Fox entertainment hub planned for Ashford Studios and the increasing demand and opportunities for independent production companies. A large gap also exists between the skills taught in schools and third level institutions and the skills required in industry. Hospitality representatives highlighted the drop in skilled staff across numerous positions since the abolishment of the State Tourism Training Agency (CERT). To close this gap, respondents emphasised *"the need to be prepared for the emergence of this future industry from a skills and education point to develop the workforce".* Further communication and collaboration between education providers, government institutions, industry and supply chain representatives were also seen as essential to provide a clear pathway for people upskilling, transferring, or commencing careers or roles in the industry.

Challenges faced to replace or retain personnel with key skills	
Salary Expectations	Some employers complained about the **changing motivations of employees**, the fact that they are a lot more mobile than before and seeking more benefits and better work-life balance. Nowadays, many graduates, it was said, leave due to a desire to travel or move abroad. Trained staff are also more difficult to retain because of the **increasing cost of salaries**. The rising cost of living and the pressure on employers to increase salaries has seen businesses struggle to keep up. The attraction of larger salaries in Dublin means local businesses must compete with the multinationals in terms of salaries and other benefits for a limited labour pool of skills personnel. There is also the attraction of living in Dublin, though this is counterbalanced by high living costs.
Transport & Proximity to Dublin	The reliance on personal vehicles for work commutes, both within and from outside the county, has made it difficult for businesses to attract and retain staff. Labour force from outside the county have increasingly longer travel times due to traffic and are reluctant to travel such distances for work. This situation combined with greater connectivity to Dublin for people in major towns in Wicklow has made it more difficult for businesses to replace staff.
Sector-Specific Factors	Several respondents, particular food and drinks producers and manufacturing, emphasised the labour-intensive nature of work in their sector, including unsocial working hours, manual and shift work. Other sectors, such as screen and content creation and hospitality, highlighted project-based work and the reliance on freelancers.

Factors driving skills shortages

Among the factors that are driving skills shortages, 85% of respondents indicated the **insufficient pipeline of suitably qualified personnel in Ireland with the specific skills required**. The lack of experienced personnel with the key required skills was a close second at 73%. Also mentioned is the **imbalance between labour supply and demand post-pandemic (30%)**, which may include people changing their work preferences and looking for roles that offer a better work-life balance.

The **lack of education or training opportunities to up-skill in key areas is mentioned by just under a third (30%) of companies**. One of these areas is that of forestry, which, according to one respondent, “is not included in the current primary or secondary schools curriculum and therefore there is little knowledge among students and career guidance personnel about the potential careers available.”

A similar proportion (27%) of respondents thought there is **a lack of information or marketing around the opportunities and benefits of a career within their sector in Ireland.**

Moreover, when asked about the barriers they experience when trying to attract key skills from abroad, **more than three quarters (76%) of respondents point to the cost of housing or rental as the biggest hurdle**. Broader quality of life issues (e.g., cost of living; childcare; availability of public transport etc) come second at 55% followed by an "onerous employment permits system" (20%).

People representing renewable energy businesses also mentioned the need for "clarity on government policy around offshore wind" and the fact that, in Ireland, their "industry is still in its infancy and still quite speculative". Screen and content creation representatives argued that, as their skills shortage are common to many countries (including the UK), skilled workers "once established abroad, tend to stay abroad". Moreover, attracting workforce from abroad "is compounded by the lack of affordable housing to rent or buy."

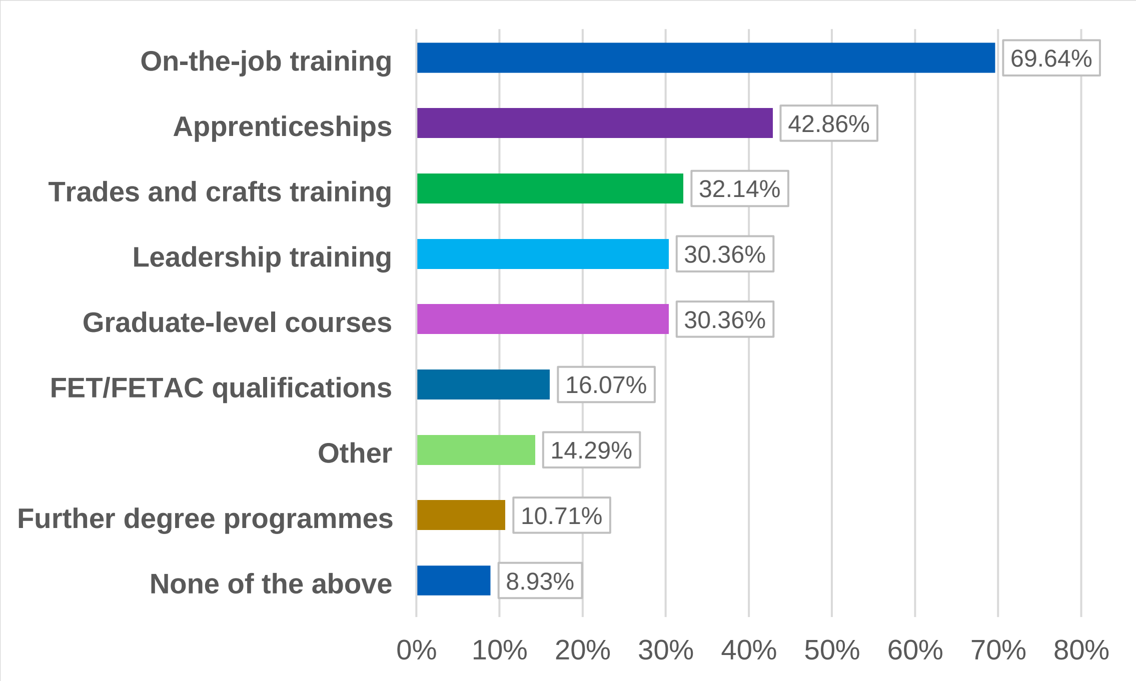
Skills Development

When asked about the kind of training that their workforce requires to address their skills needs (see Figure 4.8), **more than two thirds (70%) of employers point to the on-the-job training programmes** that they offer themselves. Some of the programmes mentioned by respondents include graduate engineering opportunities in offshore wind, health and safety training, project management training as well as agri-food skills that are rarely taught in Ireland, such as beekeeping or coffee roasting. Other respondents mentioned camera and production management, export marketing, strategy, book-keeping, and health and safety training with both in house and external trainers. However, **external programmes** are also important, especially **apprenticeships (43%)**, and **leadership training (30%)**, as well as formal qualifications such as **graduate-level courses (30%)** and **further education qualifications** (16%) pursued with KWETB or other education providers.

Overall, **most (82%) of the surveyed companies provide up-skilling or training opportunities for their existing workforce**, including, but not limited to internal training programmes. Academic and formal credentials are still playing an important role in staff upskilling, but micro-credentials are increasingly becoming more popular.

Fewer than one fifth (**18%) of respondents indicated that their companies do not offer training opportunities.** Almost all these businesses are micro-enterprises that employ fewer than ten employees and can also be freelancers or very small family businesses. Training costs – or inability to motivate employees to attend training outside of working hours – are most often cited as the reason for not offering training. Other reasons cited include staff shortages, inability to afford staff going on study leave, and poor retention rates, which make it not profitable to train staff only to see them leave shortly afterwards.

Figure 4.8: "What kind of training does your workforce require to address your skills needs?"



Engagement with Education Providers

The employers survey respondents' engagement with education providers is equally split in half between those who have and those who have not been engaging with HEIs, FETs or ETBs. However, when company size is considered, the share of those not engaging increases to two thirds for micro-companies and just over one third for businesses with more than 25 employees.

Those who have engaged with education providers do so to upskill their personnel but also use these opportunities to increase awareness of their own business. Therefore, often engagement is just what they do out of both recruitment purposes and awareness raising motivations. Some respondents mentioned that they tend to work more closely with SOLAS and KWETB for practical skills and with other institutions (e.g., Wicklow LEO, CMIT) for digital skills or business training. Others mentioned that they would like to see less emphasis on accreditations and formal awards and more upskilling opportunities for people who are not looking for exams or accreditations.

The business sectors with the lowest level of engagement include food and drinks producers (64%) and tourism and hospitality (50%). These sectors' low rate of engagement with higher/further education providers should be addressed to ease the significant skill shortages that both sectors experience.

Attracting and Facilitating Further Growth

The vast majority (84%) of business respondents believed in the potential for their sector to further grow in County Wicklow. These businesses also highlighted several actions that the Local Authority and other agencies can do to facilitate growth in the county.

Suggested Actions	
Advocate the use of local talent in the offshore sector.	A view put forward by local companies was that local authorities should advocate for the development of a **mechanism that encourages or even forces offshore wind developers to use local content** rather than rely exclusively on foreign companies to deliver the projects that are being developed off the Wicklow coast. Another suggestion in this area was to **help local businesses understand how existing industries and skills can avail of opportunities in the offshore sector.**
Help promote local businesses.	Respondents acknowledged the high level of assistance that the Wicklow Local Authority lends to some sectors, particularly the film industry. Other sectors were also pointed out as needing support. For example, it was pointed out that **some of the best coffee roasters in Ireland or even Europe are based in Wicklow**. Some of these businesses export unique coffees to Europe/USA, while other are well known on the international circuit for their cutting edge approach to roasting coffee and pushing the boundaries. However, as coffee is not a crop grown in Ireland, it is not marketed as a truly artisan Irish product. If local authorities and other agencies **embraced and promoted coffee roasting as a 100% Irish product** – local coffee roasters suggested – then it could afford the respect that the Irish dairy industry enjoys on an international level.
Assist local businesses with their upskilling initiatives.	A common theme mentioned by respondents was the need for the upskilling of employees and **assisting emerging companies and industries to understand the type of skills they will require** in the coming years. The initiatives proposed for upskilling included the need for **placement programmes** for graduates to obtain workplace experience so that they can enter the workforce upon graduation and be prepared with the right skillset. Appropriate upskilling opportunities should also be provided for those who are not fit to access college and wish to enter a craft/trade job. Generally, respondents suggested more engagement with local businesses to develop targeted upskilling programmes at all levels. Sector-specific suggested initiatives included: • a widening of the training of skills to the wider audio-visual sector (i.e., beyond film and animation); • training bases for upskilling electricians and mechanics; • support emerging and incubator companies across business sectors; • invest in purpose-built shared food units available for short or long term lease, without which startup businesses find it increasingly difficult to move on to the next level of development.

Suggested Actions	
Improve public transport and connectivity in the county.	Across all sectoral responses, the need for inter-connected public transport was highlighted as a major barrier for further growth in the county. The lack of transport has been attributed to the difficulty in hiring and retaining staff, particularly those who do not have access to a car.
Increase the supply of affordable housing.	Twinned with transport, businesses pointed out the need for a greater supply in accommodation to house people willing to live and work in Wicklow. The lack of accommodation has led to a clustering of the population living in the main (East) Wicklow towns that have greater access to Dublin than the rest of the county (typically West Wicklow) and has led to difficulties in attracting and retaining staff.
Planning and building storage facilities.	Respondents across manufacturing, engineering, and agri-food sectors highlighted the need for industrial and storage units to allow for greater business expansion and storage of goods. The lack of industrial space has stymied the expansion of businesses and forced food and beverage companies to look for storage units and incubation centres outside of the county thus cutting their profitability. These companies believe that local authorities and other agencies should be able to assist in this regard and help businesses grow.

4.2 Strategic Conversations

Stakeholder views corresponding to the key economic sectors are provided in the sectoral analysis chapters 5-8. This section provides an overview of the challenges identified by stakeholders in businesses and business networks that are common to various sectors in the overall economy. The supply of office space, accommodation and transportation are mentioned as strong enabling factors for business expansion, recruitment, and retention of employees, yet a large gap between currently provided infrastructure and required infrastructure is noted. Supports for businesses are presented as often not tailored to specific needs of the industry. The general trend towards tertiarisation of education and the wider economy, in connection with COVID19-related developments are reported to have resulted in an increased shortage of labour in professions that do not require third-level qualifications. In this regard, post-secondary education providers as well as increased immigration from abroad have been presented as potential short- and medium-term remedies. Overall, stakeholders call for strategic approaches towards solving skills shortages, which implies greater networking among enterprises, sector networks and education providers.

The engagement process has shown that businesses and employees generally maintain a positive outlook on the growth potentials for their respective sectors in County Wicklow. At the same time, responses to the surveys and roundtable discussions and interviews have highlighted several deficits across-sectors regarding the skills situation in Wicklow.

These deficits are seen to have the potential to either significantly limit or (when tackled) to significantly enhance the future growth of the respective sectors.

Theme	
Strategic Approach	Several emerging industries in Co. Wicklow currently lack a clear strategy to tackle the current skills situation in the county and potential future scenarios. Numerous stakeholders in film and renewable energy sectors operate largely without a common vision that could lead to benefits to the individual stakeholders. For example, participants to the screen and content creation roundtable discussion argued that a **film brand for Wicklow** could enhance the county's potential to become Ireland's number one film hub. Similarly, a common **renewable energy brand** was seen as an opportunity to set out a vision for Wicklow as an area with a **wind farm construction-centred industry**. Further steps taken to set up **integrated energy hub** could lead to long-term job-creation. While pointing to the need for the county's next tourism strategy to tie in more effectively with the food and beverage sector, interviewees pointed to the need for a more targeted tourism strategy and better communication in terms of future goals and actions.
Brand awareness	The **lack of brand awareness** means economic sectors in Co. Wicklow are unable to develop their full potential due to a lack of coordination. Stakeholders pointed to a lack of awareness of local representative organisations for tourism and hospitality, renewable energy and screen and content creation sectors that can discuss industry developments, common challenges, goals, and actions. Such groups are key for communicating brands, acting as local representative groups, and providing guidance on interaction with education institutions on upskilling needs. Wicklow Naturally has often been cited as an exemplary case of a representative and networking organisation for the food and drink sector. That said, consultees expressed great concern for the future of this organisation given that its funding is set to expire in 2023.
Business Supports	Business representatives across sectors pointed to the **difficulties of establishing and expanding existing businesses.** With the changing macroeconomic conditions towards increasing interest rates and the associated difficulty to access funding, **start-ups face higher risks of failure** while some are discouraged from entering the market altogether. The **increase in land prices** and perceived slow procedures to granting planning permissions for new industrial land limits the expansion for many small- and medium-sized enterprises. Businesses report that expansion is held back due to a **lack of office, production, and storage spaces**. Providing a remedy may lead to increased job creation. The **lack of property solutions** and available office space also makes it difficult to market the area for foreign investment. Poor connectivity and public transport links make it equally unlikely for many areas in the county to be regarded as appropriate business locations for foreign companies who are looking to hire local talent, especially graduates. Generally, foreign investment is heavily dependent on **placemaking** when choosing locations and communities that can attract talent. From this point of view, some

Theme	
	places – particularly in West Wicklow – are more challenging than others and investors typically go for the safest locations. Business networks and agencies highlighted the need for SMEs to be assisted in carrying out **skills audits**. As micro and small companies often do not have an HR function, the ability to analyse skills gaps is a luxury not every company can afford. Therefore, more supports should be directed towards helping local businesses to **identify critical skill requirements**, **produce a company skills plan** and **identify solutions** to address skill requirements.
Skills shortages	The skills shortages identified by sectoral stakeholders are detailed in the sectoral chapters 5-8. A general takeaway from business networks and agencies was that more engagement needs to be carried out with industry sectors to identify the skills that they need – *"Key is to find a mix between people who have similar skills in a different area and bring them up to date in line with what is required".*
Tertiarization of education	The nation-wide trend towards larger proportions of the population with third-level degrees coincides with a **decrease in professional attractiveness and hence lower participation by graduates in professions that do not require third level degrees**. Specifically, professions such as electricians that are required across sectors ranging from screen and content creation to construction and engineering, are reported to be increasingly in short supply. This leads to higher competition between businesses across sectors for employees. The higher number of third-level graduates is often seen as being in contrast with the **decreasing level of industry-readiness of graduates**. Businesses report high training needs on the job. Reasons for this perceived deficiency may include a partial disconnect between curriculum contents and requirements in professions, or a trend towards increasing specialisation of job profiles.
Skills audits	**Companies are struggling with articulating skills needs**. Education and training providers are introducing various tools for assessing these needs – e.g., the Skills Navigator introduced by the Learning & Development Skillnet – but there needs to be a more systematic approach to assisting companies with identifying skills needs and/or carrying out skills audits. The skills assessments or audit need to be driven by industry sectors, but local authorities and regional organisations can still play an important role in facilitating engagement and raising awareness of the importance of skills audits and taxonomy exercises being carried out by each sector.
Responding to skills needs	**Companies are moving away from conservative skills building approaches**. Fewer companies can find university courses that can respond to their skills needs in a timely fashion. Asking education and training providers for tailored courses usually takes too much time and cannot solve problems in the short run. Moreover, companies often have little inputs into the curriculum and assessment criteria. Ultimately, what companies and individuals need in terms of upskilling and filling skills gaps is not necessarily a matter of further qualifications, but just **effective ways of obtaining the skills needed as swiftly as possible.**

Theme	
	Skillnet business networks provide effective ways of responding to the companies' training and upskilling needs. One way is by **funding the companies' own solutions** through grant aid training, whether it is about developing in-house programmes or participating to open programmes. Networks can also develop tailored programmes through their own panel of education providers. Either way, the Skillnet's response is agile and entirely industry- and company-led and tailored to specific needs. This approach is a real enabler for companies and in line with the fast changing needs in today's economy.
Awareness of education and training schemes	Business networks appreciate the **engagement with KWETB and LEO** and the **range of business and educational support** that are made available to local businesses. A lot of praise was given to the wide range of courses that KWETB offers – especially **courses that are tailored to sectors, accredited and for free**. Awareness raising is still very important, however, as not many businesses understand what is available to them and how these supports can be accessed. **Business networks and town teams should be used more widely to spread this information to members**. They can also be important sources of information on the barriers employers experience with signing up for educational schemes like apprenticeships, traineeships and Springboard+ courses. Moreover, West Wicklow stakeholders highlighted the need for information sessions to be organised locally. The **lack of direct engagement with businesses and communities across West Wicklow**, coupled with the scarcity of County Council services offered in this area, makes is difficult for locals to grow aware of supports that may be available to them.
Difficulty of accessing training schemes	Several instances of **businesses that expressed interest in taking part in apprenticeship programs and received no support** from SOLAS were mentioned. The complete lack of engagement with these businesses has led to potential apprentices leaving the area and claiming welfare instead.
Co-development of FET courses	Several interviewees outlined some of the challenges that may be encountered in the development of FET courses. For example, Coillte experience working with the Cavan and Monaghan Education and Training Board (CMETB) to develop a Level 5 forwarder course at the Ballyhaise Agricultural College has brought to light the importance of **including contractors as primary stakeholders when developing new courses.** Additionally, depending on the location and course format, sourcing course participants can turn into a significant challenge, which explains why some courses may not materialise. Similarly, apprenticeship programmes need a core number of participants to ensure they are viable and reaching the minimum threshold is difficult for specialised sectors such as forestry. Therefore, **industry investment is key to support the development of training schemes, courses, and apprenticeships.**
Viability of education and training schemes	Business representatives highlighted the need for and importance of **apprenticeship as a training and education model for industry**, especially given the acute need to build and deliver sustainable infrastructure and the demand experienced by construction service companies. Nevertheless, consultees also emphasised **the barriers that**

Theme	
offered to employers.	**SMEs see in the uptake of apprentices**, as they still come at a high cost for businesses. A model of 0% costs for the businesses in the first year, which can rise subsequently was proposed.
Housing	**Availability of housing at affordable prices** was identified as a key driver for skills attraction throughout the engagement process. Businesses and employees alike - irrespective of sector - cite the lack of and cost of housing as a main reason for difficulties in hiring/ retaining personnel or accepting positions/ looking for alternative positions elsewhere. This view is particularly common with stakeholders in the food and beverage, tourism (including hospitality), and screen and content creation sectors where shift work, seasonal work, short-term contracts, and overall lower levels of remuneration are more prevalent than in various other sectors of the economy such as IT, finance, construction, and manufacturing. According to businesses, the current nature of the housing market leads to a loss of competitiveness as potential new employees are discouraged from moving to Co. Wicklow.
Infrastructure	Infrastructure supports are also needed to facilitate new business development. For example, the **delays in the construction of the wastewater treatment plant in Arklow** was highlighted by multiple stakeholders as having delayed and even turned away potential investors in the area across sectors as diverse as tourism, renewables, and construction.
Connectivity / Public Transport	The introduction of remote and hybrid work models and the companies' ability to hire from further afield largely depends on the ease of commutes. Business representatives pointed to the lack of connectivity between places within Co. Wicklow and from/to (various places in) Dublin as an issue. Bray is often cited as an example of well-connected public transport, while the level of connectivity with public transport in Wicklow, Arklow, Baltinglass, Blessington and their respective hinterlands is considered largely insufficient. The poor infrastructure and connectivity in West Wicklow, particularly Blessington, forces people to seek work in Naas, Newbridge, and South Dublin rather than locally within Co. Wicklow. Furthermore, according to respondents, commuting with means of individual transport is held back across the county by a lack of an integrated cycling infrastructure and high traffic on roads. The lack of public transport options was identified as being incompatible with the ongoing drive towards promoting a green economy and lifestyles. Overall, consultees highlighted that **it is harder to attract people to the west of Wicklow because of the challenges around transport and accommodation**. Companies need to offer better wages and subsidies to offset these challenges. By comparison, East Wicklow has better connectivity, which makes it easier to attract workforce.

05

Key Sector Analysis: Screen & Content Creation

5 Key Sector Analysis: Screen & Content Creation

5.1 Factors Shaping Demand for Skills

This section outlines recent trends and developments in the screen and content creation sector as well as national and local policy responses aimed at an inclusive sector recovery in the aftermath of the COVID-19 pandemic. The overview of screen and content creation trends is followed by a description of the sector in Co Wicklow, including overall employment and occupations levels.

5.1.1 International Trends and Implications for Workforce and Skills

While the economic impact of the screen sector globally cannot be overstated and global expenditure on screen production keeps increasing, the sector has continued to evolve in the wake of the Covid-19 pandemic, with the pace of change difficult to navigate in some instances. This section explores some of these key trends.

Digital Transformation and Convergence

Advances in digital technologies are revolutionising many aspects of the screen and content creation sector in Ireland and internationally. This impact is felt across the project lifecycle – from production to editing to release – with the intensity and pace of change further accelerating post-pandemic. Digital transformation and converging technologies are key to the long-term success of the Irish screen industries, as pointed out in recent research commissioned by Skillnet Ireland:

> "*For Ireland to continue its role as a global leader in the creative screen industries, it is vital that the talent base reflects not just the current business demands, but also the challenges of future growth in existing and new markets*".[36]

The report further notes that the impact of digital transformation goes far beyond processes, structures, and customer offerings, and can change the very nature of an organisation and the way it does things. These trends highlight the importance not just of implementing new technologies, but also, of "learning and applying new, digital skills" and of developing what Neeley and Leonardi (2022) refers to as a "digital mindset"[37]. County Wicklow's own strategy for the development of the screen sector[38] points to the digital convergence being experienced between the screen industry and video games in game engine technology and digital skills (e.g., the rapid growth of real-time, on-set visual effects in virtual production), which requires the upskilling of the current workforce to develop these new set skillsets and work processes.

[36] Strategic Innovation Partners (2022). *Digital Transformation in the Screen Industries*. Available at: Digital-Transformation-in-the-Screen-Industries-Oct2022.pdf (skillnetireland.ie).
[37] Neeley Tsedal and Paul Leonardi (2022). *Developing a Digital Mindset.* Harvard Business Review, May-June 2022. Available at: https://hbr.org/2022/05/developing-a-digital-mindset.
[38] *County Wicklow Screen Sector Development Strategy 2022 – 2026*. Available at: County Wicklow Screen Sector Development Strategy.pdf.

SAG-AFTRA Strikes

During the summer of 2023, the Screen Actors Guild and American Federation of Television and Radio Artists (SAG-AFTRA) went on strike, joining the Writers Guild of America (WGA) in calling for better pay and job security. SAG-AFTRA represents over 160,000 performers and is one of the largest labour unions in the United States – including actors in film and TV shows, as well as video game performers, radio presenters, models, and YouTube influencers. It was the first time in over 60 years that both writers and actors have gone on strike at the same time and the strike is continuing to have a global impact. In June, the Writers Guild of Ireland (WGI) joined a Global Day of Solidarity in support of the Writers Guild of America (WGA) strike. WGI chairwoman Jennifer Davidson wrote[39] to members stating that:

> "*I know that sometimes the world of writers in the US can seem like a million miles away from the reality of being a writer in Ireland. But the truth is that the struggle for fair compensation and protections against these global streaming companies impacts us all. Their fight is absolutely our fight*."

Davidson further noted that screenwriting careers in Ireland are already "very fragile" and if the US industry becomes more casualised, it will become "*even harder for Irish writers to ask to be paid for work they do as part of the development process*". Moreover, Grainne Humphreys – Director of the Dublin International Film Festival – noted that an actor who has agreed to shoot for three weeks in Ireland next summer may find they "will now not be able to confirm that" due to the strike. Humphreys also pointed out that "*for Irish films going forward, many of them often have one or two big cast members that they use to get the money, to get the PR coverage and they're kind of leveraging their budget around that. The worry here is that a lot of smaller budgeted films are not going to have an opportunity to shoot around their key talent for weeks on end*". [40]

While the strike ended in late September 2023, its impact on film production scheduling and employee contracting in Ireland are yet to be assessed and quantified.

New Skills Development

In terms of workforce planning and strategy, key skill developments in the areas of providing virtual art development, coding and engineering skills and development of assets were some of the key skills to be developed in the area by StoryFutures[41]. Additionally, the need for R&D skills with cutting-edge insight into the newest developments and how to bring these into production and into the workflow integration were important factors.

One area that is fast developing in a sub-set of this is the area of virtual production (VP) technologies and techniques. The global VP sector is expected to rise in value to USD $3.1bn by 2026[42]. However, this has been highlighted as a conservative estimate by

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[39] Slattery, Laura (2023). Irish screenwriters join Global Day of Solidarity in support of US strike. *The Irish Times*, June 14. Available at: [Irish screenwriters join global day of solidarity in support of US strike]().
[40] Dalton, Eoghan (2023). What impact might the Hollywood actors strike have on Irish film?", *TheJournal.ie*, July 15. Available at: [What impact might the Hollywood actors strike have on Irish film?]().
[41] Bennett, Heath, Kilkelly, and Richardon (2023). *StoryFutures Virtual Production Skills Report 2023*. Available at: [StoryFutures_VP_Skills_Report_2023.pdf]().
[42] MarketResearch.com (2022). *Global Virtual Production Market 2023-2027*. Available at: [Global Virtual Production Market 2023-2027]().

some other reports led by giants in the field such as Sony Group, Technicolor, and NVIDIA corporation[43]. Virtual production companies in the UK anticipate that the growth in this sector is likely to continue in the longer-term, but that there is a skills gap (along with an experience gap) that will need to be addressed to order to service this growth of the industry. The main courses that were identified in addressing this skill gap were visual effects and production skills courses (including virtual production and production management), and adjacent courses in media arts courses (including film and TV), technically oriented courses (including editing and cinematography), games design and animation and computer science courses.

This gap is also recognised within the Irish context. Screen Ireland states[44] that key areas of focus for future skills needs in Ireland include "digital and technology related skills, especially in relation to virtual production". It is further noted that "*a big challenge with developing these types of digital skills to future-proof the industry, is in ensuring we have adequate training spaces for virtual production as currently there are no such training facilities in Ireland*".

To foster this sector's growth, the UK are developing academic courses and additional training pathways to those already working in the industry who wish to upskill and pursue work in the wider area. Some of the examples of these were developing a ten-day foundation course on 'Operating virtual production systems' in partnership with the Mo-Sys Academy in east London on an individual level and then company-level courses ran by the Screen Industries Growth Network (SIGN) to upskill.

For Wicklow, these developments highlight an opportunity in the content creation area, as the roles in screen and content creation are part of the identified skills and they are a recognised skills shortage in the local economic area (UK and Ireland) that Wicklow can develop as a recognised centre of excellence, with jobs that can remain in the local area and can be developed organically through the next decade for the area. Focusing on a sub-set of the industry, such as the VP area, has been shown internationally as a viable avenue to focus on a sector that can develop the area.

Skills Level and Job Quality

In terms of education profile, it is estimated that 75% of persons working in the Screen & Content Creation sector currently have a third-level degree.[45] A new report[46] based on UCD's Working in Ireland 2021 Survey found that the people employed in the 'Arts, entertainment and recreation' sector have the highest level of high skills utilisation and development among other economic sectors. Specifically, 71.4% of these employees agreed that the training completed was adequate in keeping them up to date with the skills required of their job; that their job was more secure as a result of training; that their employment prospects improved because of the training; and/or that their job provides

[43] *Virtual Production Market – Global Forecast to 2027*. Available at: [Virtual Production Market Analysis, Trends & Growth Drivers | MarketsandMarkets](#).
[44] Screen Ireland (2023) The Skills Challenge for the Screen Sector in Ireland 2023
[45] Calculated from SOLAS Skills Bulletin 2022 data on share of third level degree in occupational groups and estimate of representation of occupational groups in the Screen and Content Creation sector.
[46] Geary, John and Lisa Wilson (2023). *Job Quality in Ireland. First findings from the UCD Working in Ireland Survey 2021*. NERI Report Series No 27. Available from: JOB QUALITY IN IRELAND.pdf (nerinstitute.net).

them with the opportunity to put qualifications and skills to good use[47]. Just over 15% of workers in this sector indicated that they took part in training (either on/off-the-job training or both on/off-the-job training) that lasted for more than three weeks in the previous two years (excluding health and safety training). Notably, this level of job training was only second to that of workers in the 'Information, comms, financial, and insurance' sector (18.7%). These findings show strong alignment, in that arts and entertainment employees are among the ones who receive the most training and utilise their skills the most.

Conversely, despite arts and entertainment employees having the highest level of skills utilisation and development, they are also placed near the bottom of the hierarchy in terms of level of pay and job quality. Specifically, 35.1% of workers in this sector face low pay (i.e., net income below €20,000) and 47.4% of workers have poor additional remuneration benefits (e.g., those having none or only one of four additional remuneration benefits including paid sick leave, paid holidays, an occupational pension, or medical insurance coverage).

To sum up, findings related to the combination of high skills provision and utilisation coupled with poor job quality indicate that – as pointed out by numerous stakeholders – more effort needs to be put into creating better work conditions to attract an even higher share of people to this sector.

5.1.2 Screen and Content Creation Strategies and Implications for Skills Development

Film Relief – Section 481 Film Tax Credit

Section 481 (S481) provides relief in the form of a corporation tax credit that is related to the cost of production of certain films. The credit is granted at a rate of 32% of the lowest of i) eligible expenditure ii) 80% of the total cost of production of the film or iii) €125 million[48]. The minimum amount that must be spent on production is €250,000 and the minimum eligible expenditure amount to qualify is €125,000. Section 481 can only be claimed by a producer company and is related to scripted drama and film.

S481 tax incentives attract both domestic and international production companies to shoot in Ireland. As a result, the industry has seen an increase in production activity, creating a substantial demand for skilled professionals and supporting the local economy. For example, out of the 16,952 FTEs employed in production activity supported by S481, 90% are Irish or EU citizens[49].

While acknowledging the impact that the film tax credit has had on supporting the film industry, industry stakeholders are also united in drawing attention to the fact that the

[47] The high skills utilisation development indicated by 71.4% of workers in the 'Arts, Entertainment and recreation' sector was captured by those who responded strongly agree/agree to three of four of these indicators, whereas low skills utilisation/development captures all of those who do not meet this threshold (Geary & Wilson 2023: 20).
[48] On 11 October 2023, the government announced an increase of the eligible expenditure cap of the Irish tax incentive, Section 481, from €70 million to €125 million, subject to state aid approval.
[49] PWC (2021). *The Film/TV Industry & Ireland's Economy: Insights report on the contribution of Section 481 Film Tax Credit supported production activity to the Irish economy*. Available at: [Screen-Industry-report-2021.pdf (troystudios.ie)](Screen-Industry-report-2021.pdf).

cap restricts opportunities for attracting larger scale, long-running productions to Ireland, as well as the number of full time employees and trainees that can be employed on sets by production companies[50]. This perspective was fully corroborated by the interviewees conducted as part of the research undertaken for the development of County Wicklow's Skills Strategy.

The growing demand for skilled workers requires investments in training and education programs related to both film and television production. Certain aspects of TV and film production require specialised skills and expertise. The increased demand for these roles fosters the development of specific training programs thus creating a more diverse and skilled workforce. The increase in filming also leads to extra demand in support services such as catering, transportation, and equipment rental. In 2019, as reported in the PwC 2021 assessment, the 124 productions that applied for the film tax credit in 2019 collectively spent €275.9m on Irish-based labour and suppliers of goods and services. The total economic impact of this expenditure resulted in the production activity contributing €416.9m to the national economy.[51]

Screen Ireland

The ***Screen Skills Ireland 10 Point Action Plan 2020-2025***[52] demonstrates a comprehensive approach to addressing skills development in the screen sector and highlights opportunities for collaboration between industry stakeholders, education providers and policy influencers on skills development within the screen sector in Ireland. To this aim, the plan covers various aspects, including training, apprenticeships, industry collaboration, and diversity and inclusion, ensuring a well-rounded strategy. A key part of the plan is to support the implementation of initiatives for regional skills that address shortages in the screen sector.

The ***Skills Challenge for the Screen Sector in Ireland 2023***[53] identifies indicators of sustained growth over the coming years with studio infrastructure being expanded. Despite the sectoral skills gaps which need to be addressed, the paper highlights the significant successes in the sector in recent years including the process for tracking training and skills development by Screen Ireland which has put a more structured approach to work based learning. Further developments include the creation of an online Crew / Workforce Database in 2023 which will support skills and workforce development. Similarly, Screen Ireland's strategic plan, **Building for a Creative Future 2024**[54], which is the result of extensive consultation with stakeholders in the Irish screen industry, identifies the need to invest in talent and skills as well as resourcing to support the vision for the screen industry.

Moreover, the Skills Challenge report points to a **lack of structure in the collaboration between education and the industry**. According to the industry, recent graduates are not workplace ready. Although ''flying hours'' or placement are recommended to gain experience in the workplace, the majority of students find it difficult to access such

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[50] Ibid., p. 13; 17.
[51] Ibid., p. 5.
[52] Screen Skills Ireland (2019). *10 Point Action Plan: 2020-2025*.
[53] Screen Ireland (2023). *The Skills Challenge for the Screen Sector in Ireland 2023*. Available at: The_Skills_Challenge_for_the_Screen_Sector_in_Ireland_2023.pdf (screenireland.ie)
[54] Screen Ireland (2023). *Building for a Creative Future 2024*. Available at: Building_for_a_Creative_Future_2024.pdf (screenireland.ie)

opportunities despite the programs currently in place. This unstructured collaboration also affects the ways in which the industry promotes itself to those in second and third level education and the benefits of working in a career in the screen sector.

Regional and Local Policies

The **Mid-East Regional Enterprise Plan to 2024** puts forward the vision for Wicklow to consolidate its position as a screen and content creation hub in the Mid-East. The Plan designates the Rathnew campus for the establishment of a regional crew development hub for Mid-East and the South-East. In addition to supporting existing and planned studio infrastructure, the crew development hub is expected to organise and deliver skills and talent development initiatives for crew roles in the screen industry, bridge gaps between third level and industry and support experienced industry crew with further skills development and career progression opportunities.

County Wicklow's Screen Sector Development Strategy[55] sets out the recommendations for the county's objectives and actions supporting the growth of its film and television production cluster between 2022 and 2026. There are two central pillars to the screen strategy, which can be developed to enhance Wicklow as a standard bearer for skills development and increase the production of domestic content.

First, the establishment of a *Content Creation Enterprise Hub (CCEH)* located in the Rathnew Campus, which is already designated as a Centre of Excellence in Enterprise, Education and Innovation. The establishment of the CCEH will shape demand for skills particularly in hosting creative professionals such as producers, writers, directors, cinematographers, editors and graphic designers, furthermore professionals with a background in legal, financial and administrative roles will be required.

The second strategy pillar is to rebrand and upgrade the Wicklow Film Office to *Screen Wicklow*. This rebranding aims to recognise the intersection between film and High End Television (HETV) with regard to budget, crew skills and working practices. The rebranding and upgrading of the Wicklow Film Office will provide a one stop shop for permits, information and troubleshooting wanted by producers. This rebranding will also consist of the creation of a website with online location, crew, and facilities databased alongside support material that helps promote screen content production in County Wicklow. The rebranding will require construction and technological skills to complement each other and the streamlining of the existing process for TV and Film productions.

5.1.3 Sectoral Landscape in County Wicklow

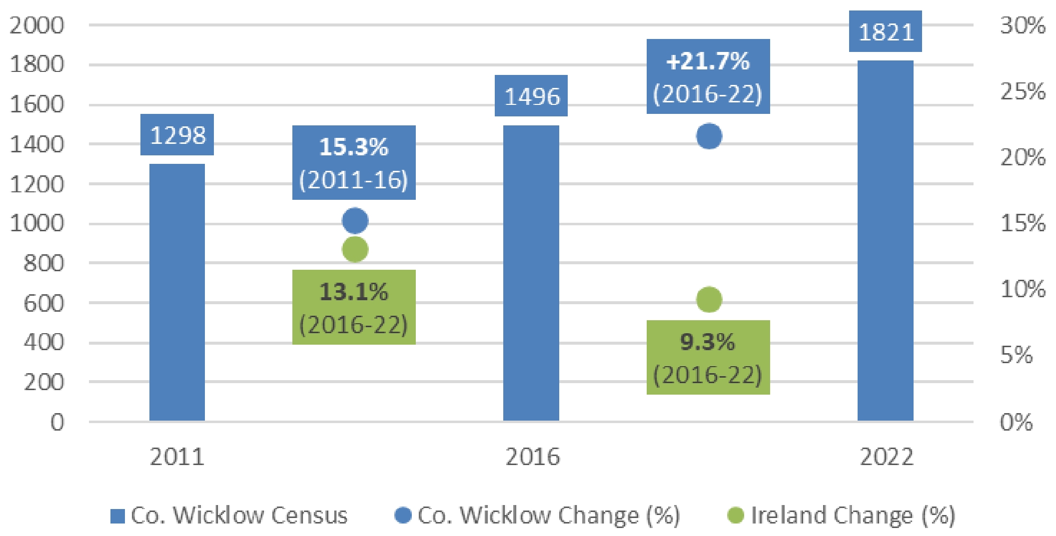
Screen and content creation is a small but growing sector of the Irish economy. Screen Ireland estimates that the "film, TV and animation sector in Ireland is worth over €692 million, comprising 11,960 jobs by way of direct, indirect and induced employment across the economy", with total production spending between 2019 and 2021 increasing by 40% to €500 million.[56] Although a breakdown by county is currently not available, it can be assumed that Co. Wicklow represents a significant share of these figures.

[55] *County Wicklow Screen Sector Development Strategy 2022 – 2026*. Available at: County Wicklow Screen Sector Development Strategy.pdf.
[56] Screen Ireland Data.

Workforce Profile

As of 2022, 1,821 persons were active in occupations considered under the screen and content creation sector in Co. Wicklow, representing 2.4% of the county's labour force. This figure is markedly higher than for Ireland overall, where only 1.5% of the labour force is active in occupations considered under the screen and content creation sector. Figure 5.1 compares screen and content creation employment in Co. Wicklow and nationally over the last three census exercises. The significant increase in employment in Co. Wicklow over the 2016-2022 period (+325 persons amounting to 21.7% growth) contrasts with the national trend where employment in the sector has grown at significantly lower pace.

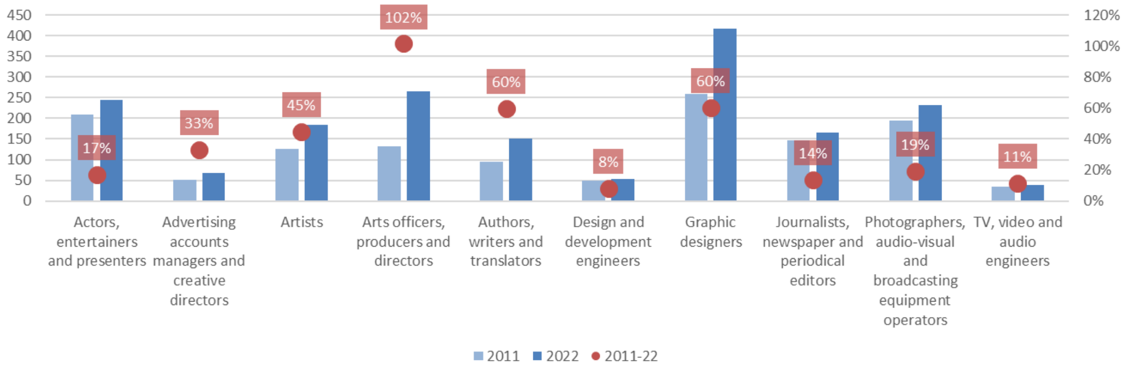
Figure 5.1: Screen and Content Creation Employment, 2011-2022



Total employment in the sector can be further broken down into the ten occupations[57] included in Figure 5.2. Between 2011 and 2022, employment across all ten occupations increased, with the highest absolute and relative growth registered among 'arts officers, producers, and directors' and 'graphic designers'. The relatively low numbers in full time employment and the high growth rates point to an emerging sector of significance. However, as most businesses operating in screen and content creation are micro- and small-scale enterprises, the sector is characterised by high volatility in business activities, which translates into a significant share of short-term contractual employment. For example, Disney's Disenchanted, which was filmed on location in Dublin and Wicklow in 2021, hired 98% Irish crew representing over 1,000 jobs on the production.[58] Thus, to ensure high level of production activity that lead to increased crew professionalisation and high retention rate in this sector, attracting both local and international productions is essential, as are supports for workers in this area, including satisfactory pay, job quality, and job training.

[57] These figures include Co. Wicklow residents employed in the ten occupations in or outside of Co. Wicklow but exclude residents outside of Co. Wicklow employed in Co. Wicklow.
[58] Record-breaking production figures for the Irish screen Industry in 2021 (screenireland.ie).

Figure 5.2: Screen and Content Creation Employment by Occupations, 2011-2022



5.2 Stakeholder Views

Themes	
Biggest challenges	One of the core issues revolves around production and the **scarcity of available skilled crew.** The film and TV industry in Wicklow has seen a surge in activity, however, challenges lie in establishing high quality facilities and a consistent skilled workforce for production. There is a critical interdependence between the growth of productions as seen in the sector and **development of a consistent, skilled crew**. Initiatives such as the Passport to Production program have aimed to address this gap by attracting new entrants into the industry. However, one of the major reasons for a lack of a consistent, skilled workforce in the sector is the **disconnect between academia and industry-readiness**. Graduates are not adequately prepared for the workplace, which hinders their integration into the sector. Due to the fast-paced nature of being on-set for a Film/TV production, training of graduates is extremely difficult. The quality of Ireland's third level media courses was praised; however, an issue was highlighted in terms of **'funnelling those graduates into the industry.'** There is a feeling that there is a **missing link between third level courses and workplace** with requirements around lecturing on subjects such as set deck requiring a master's degree which is difficult to come across due to the profession being craft based. Similarly, funnelling those new graduates into the industry is reliant on **'making the sector attractive to trainees and attracting experts as well.'**
Supports for the sector	Supports for the sector that were called upon were the inclusion of **'new incentives for productions to take on board new graduates onto Film/TV crew'.** This would help resolve the challenge highlighted above with regard to funnelling new graduates into the industry and ensuring a consistent stream of skilled crew available for productions whether big or small. In terms of bridging the gap between academia and the workplace, the sector could be supported by allowing **guest lecturers**, who are experts in

Themes	
	their given fields, to give talks in colleges and give students first-hand knowledge and experience in the industry. Similarly, while the Passport to Production programme is subsidised, the industry is limited in how much it can subsidise for work placements and an **increase in the funding available to help train those in the workplace** is urgently needed.
Skills shortages	**Shortages in 'accountants, construction crew, set deck, props, script supervisor and continuity'** were all highlighted as major skill gaps in the industry. The shortage of accountants in particular was emphasised by representatives of multiple production companies. The lack of continuous projects was seen as a major barrier too, due to Section 481 which has a 'cap per feature film of €70 million spend'. The issues around skill shortages 'cut across sectors, not just film'. There is a lack of young people entering into trade posts such as electricians. Another skill shortage mentioned was that of **outreach and public engagement** personnel. The issue of potential public objections to filming on locations was highlighted, as was the need to have a spokesperson who engages with the public and makes sure that the local area is garnering the benefits of films in their areas and that disturbances such as road closures are minimized.
Skills development needs	An insight from a skills development side was the **need to focus more on experience rather than certification**. This is tied into improving the entrants into the industry and broadening 'the socio-economic diversity in the sector.' Similarly, there is a need for practical solutions to allow people to enter the industry such as easing barriers in terms of obtaining a driver's license, which is often a prerequisite for those wishing to work in the industry. Interviewees highlighted the need to **enable training both before and during production times**. This would allow students to earn credits, observe a production, and generally learn outside the fast-paced environment before progressing to work on a production after gaining experience through observation. With regard to the shortage of accountants, interviewees highlighted the need for **bespoke training for production accountants and accounts trainees**, which require specific knowledge and expertise tailored to the film sector.
Strategic / collaborative actions	The creation of a **'NextGen website that could act as a portal'** for job opportunities in the sector and more information about the screen industry that would help graduates and those interested in the industry in general. This action could also tie in with **early intervention approaches** to raise awareness about career opportunities in the film sector to Transition Year students and secondary schools across the country. Placing stalls at major national events could also help increase the visibility of the industry and its job opportunities. The work carried out by Screen Ireland in recognising prior learning was highlighted as an important step in a strategic action which would help ease

Themes	
	the lack of availability of workers across the sector. This would be a major boost particularly for crewing in the electrical department as they currently need credits to be employed by the studio, which is a barrier for a significant number of those involved in the profession. Joined-up thinking was highlighted as essential for the future growth of the sector with significant praise given to current links between industry, agency, and education – *"We need to understand where the demand is coming from and achieve greater joined-up thinking within the county, country and industry […] Collaboration between education and our sector is going very well with regular meetings and good dialogue."*
Section 481	Section 481 received a lot of praise for its impact on increasing the competitiveness of the Irish film sector. The film tax credit was also commended for its contribution to having local crew involved at every level of a production, not just skills trainees, which contributes massively to skills development and training. That said, a lot of criticism was directed to the S481 cap per feature film of €70 million spend and the fact that S481 only applies to film. Roundtable participants argued strongly in favour of **including the TV sector under Section 481** and **removing the cap on spending to free up resources** and allow for those resources to be spread around the sector 'rather than fighting over a small pool.' Although the increase of the eligible expenditure cap to €125 million, which was announced on 11 October 2023, was seen as a positive development, it was still deemed not big enough to enable Ireland to attract large productions – *"125 million is a fantastic increase but we need to be above that and get bigger productions will allow us to show what we can do and what we have in terms of skills, location and experience in Wicklow."*
Contribution to county economy	Film, nationally and internationally, puts Wicklow on the map. Wicklow is ahead of other locations in Ireland due to the heritage of screen in the area, which includes film making, production, and advertising – "*You have generations of the same family which are in the business. Where Ardmore is in Bray and surrounding areas, people are wedded to the industry, and this means there is always a pipeline of workers."* Film productions also bring a lot of revenue into the Wicklow area – *"people on the set are spending in the town and need resources, shops, facilities, raw materials etc."* A business network representative suggested that Wicklow County Council could do more to communicate how much the film sector contributes to the local economy.

5.3 Projected Skills Demand

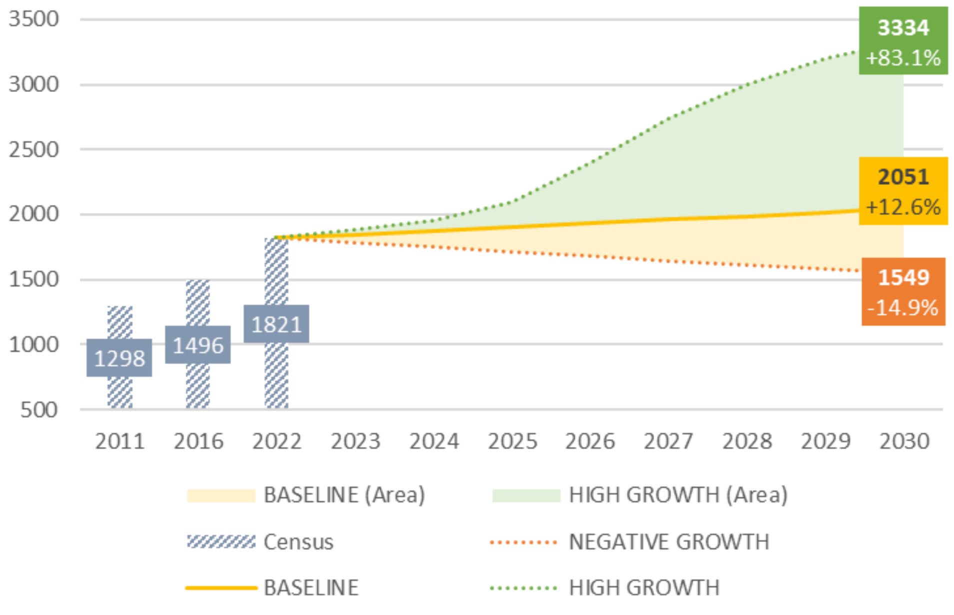
Projected 2030 employment figures in the screen and content creation sector take into account labour force trends, characteristics of the screen and content creation workforce, and sectoral trends (both national and local). Three diverging scenarios are derived based on the potential variability of these parameters. However, due to limitations in the current sectoral employment landscape, the volatility in recent employment trends, and the methodological difficulty to project forward from low numbers, the scenarios presented below should be interpreted with the caveat related to the high degree of uncertainty they are characterised by.

Table 5.1 shows the number of Wicklow employees in the screen and content creation sector in 2022[59] and forecasted employment figures for 2030 under three scenarios of constant, high, and low growth employment expectations for this sector. The same scenarios as well as past employment levels (2011, 2016, 2022) in screen and content creation in Co. Wicklow are displayed in Figure 5.3. Annual estimated growth for 2011-16 and 2016-22 and projected annual growth estimates for the three scenarios are displayed in Figure 5.4.

Table 5.1: Scenarios for Projected Skills Demand in Screen and Content Creation Employment

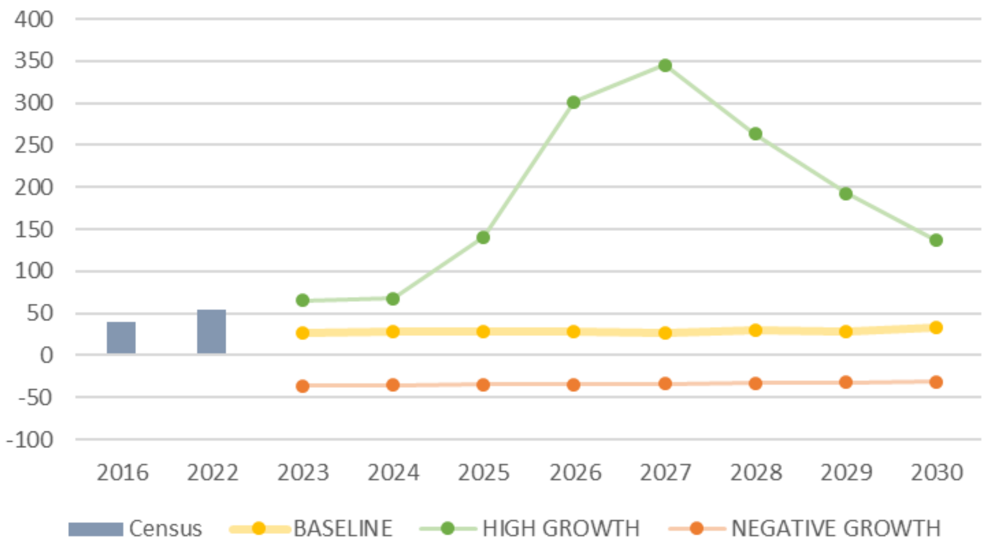
Employment 2022 (Census 2022) || % Labour Market	Scenario	Forecasted Employment 2030	Forecasted Growth 2022-2030
	High Growth	3,334 3.9%	+83.1%
1,821 2.4%	**Baseline**	2,051 2.4%	+12.6%
	Low Growth	1,549 1.8%	-14.9%

Figure 5.3: Screen and Content Creation – Past & Projected Employment Trends, 2011-2030



[59] Based on CSO Census 2022 data on Occupations.

Figure 5.4: Screen and Content Creation Employment Trends, 2011-2030



Baseline Scenario

Under the **baseline scenario**, screen and content creation employment is expected to remain at the 2022 level of 2.4% of the county labour force. Underlying assumptions for this scenario include:

- Continued sector development due to a growth-oriented government policy.
- A positive impact of the new Clermont Screen Hub in Rathnew, despite a limited clusterisation effect of new enterprises around the new facilities.
- A decreasing level of competitiveness for Co. Wicklow compared to other regions due to high cost of living and limited access to housing and transport.

The projected growth of the labour force implies an increase in the number of employees in screen and content creation occupations by 12.6% (amounting to 230 persons) reaching 881 persons in 2030. The yearly workforce change (i.e., skills requirements) over the 2023-2030 period is shown in Table 5.2.

Table 5.2: Baseline scenario – Yearly change in screen and content creation employees

2023	2024	2025	2026	2027	2028	2029	2030	Total
+27	+28	+29	+28	+27	+30	+29	+34	**+230**

High Growth Scenario

The **high growth scenario** assumes that employment in screen and content creation will increase significantly by 83.1% (1,513 persons) and will reach 3.9% of the labour force in 2030.[60] The yearly workforce change over the 2023-2030 period is shown in Table 5.3. Underlying assumptions for this scenario include:

- Accelerated growth of the sector overall (2025-27) due to growth-oriented government policy. Note the suppressed growth until 2024 due to constraints caused to the creative industries by internal developments and decreasing growth rates post-2027 related to potential market saturation.
- A positive impact of the new Clermont Screen Hub, Rathnew, and an increased gravitational effect of the county as a brand for the industry as significant clusterisation of new enterprises around the new facilities occurs.
- Improvements in infrastructure around housing and transport ensure continued competitiveness of County Wicklow compared to other counties and countries.

Table 5.3: High growth scenario – Yearly change in screen & content creation employees

2023	2024	2025	2026	2027	2028	2029	2030	Total
+66	+68	+141	+302	+345	+263	+192	+136	**+1,513**

Low Growth Scenario

The **low growth scenario** assumes that the number of people employed in screen and content creation will decrease by 14.9% (amounting to a decline by 272 persons), falling to 1.8% of the county's labour force by 2030.[61] The yearly workforce change over the 2023-2030 period is shown in Table 5.4. Underlying assumptions for this scenario include:

- Disrupted growth due to a general economic downturn, or insecurity as a result of continued sectoral crises, i.e., the Writers Guild of America strike, which could lead to existing enterprises exiting the market and preventing new enterprises being established.
- An insignificant impact of the new Clermont Screen Hub.
- A decreasing level of competitiveness of County Wicklow compared to other counties and countries due to high cost of living and limited access to housing and transport.

Table 5.4: Low growth scenario – Yearly change in screen & content creation employees

2023	2024	2025	2026	2027	2028	2029	2030	Total
-36	-36	-35	-34	-34	-33	-32	-32	**-272**

[60] The high growth scenario assumes a continuation of the 2016-22 intercensal annualised growth of 3.6% for 2023 and 2024, a doubling to 7.2% in 2025, another doubling to 14.4% in 2026, a stabilisation at 14.4% in 2027, and degressive growth by applying an annual degressive factor of 0.67 yielding growth rates of 9.6% in 2028, 6.4% in 2029, and 4.3% in 2030.
[61] For the low growth scenario, a degressive growth factor (0.98) is applied to the 2022 sector's share in the labour force (i.e., expecting the sector to decrease its share in the labour force by 2% annually) to project forward the 2022 employment numbers from the Detailed Industrial Groups.

5.4 Skills Supply

The critical skills gaps identified as a result of engagement with stakeholders in screen and content creation in County Wicklow included the following roles:

- Production management (e.g., senior & junior production managers, production coordinators)
- Editors
- Researchers
- Multi-camera directors and operators
- Production accountants (qualified accountants)
- Electricians (qualified)
- Script Supervisors (continuity)
- Set designers
- Film crew (e.g., locations, art, catering, construction, props)

This section summarises the data on HEIs and FET provision of third-level courses and education and training schemes relevant for these occupations. Particular emphasis is laid on the educational attainment of students with Wicklow as their county of origin and the local provision of education and training.

5.4.1 Higher Education Institutions

From 2016 to 2022, the number of graduates in screen and content creation-related fields[62] has fluctuated between 1,135 and 1,370, without a clear trend visible (see Figure 5.5). About two thirds of graduates came from the Technological University of the Shannon, Midlands Midwest (TUS), TU Dublin, Dún Laoghaire Institute of Art, Design and Technology (IADT), Munster Technological University (MTU), Atlantic Technological University (ATU) and SETU. While TU Dublin produced the highest relative number of graduates in 2016, 2017 and 2022, TUS and IADT have also been gaining ground in recent years. From 2016 to 2022, the share of graduates from HEIs based in the wider catchment Co. Wicklow (Dublin, Maynooth, Carlow, Waterford) has slightly declined from 62% to 55%.

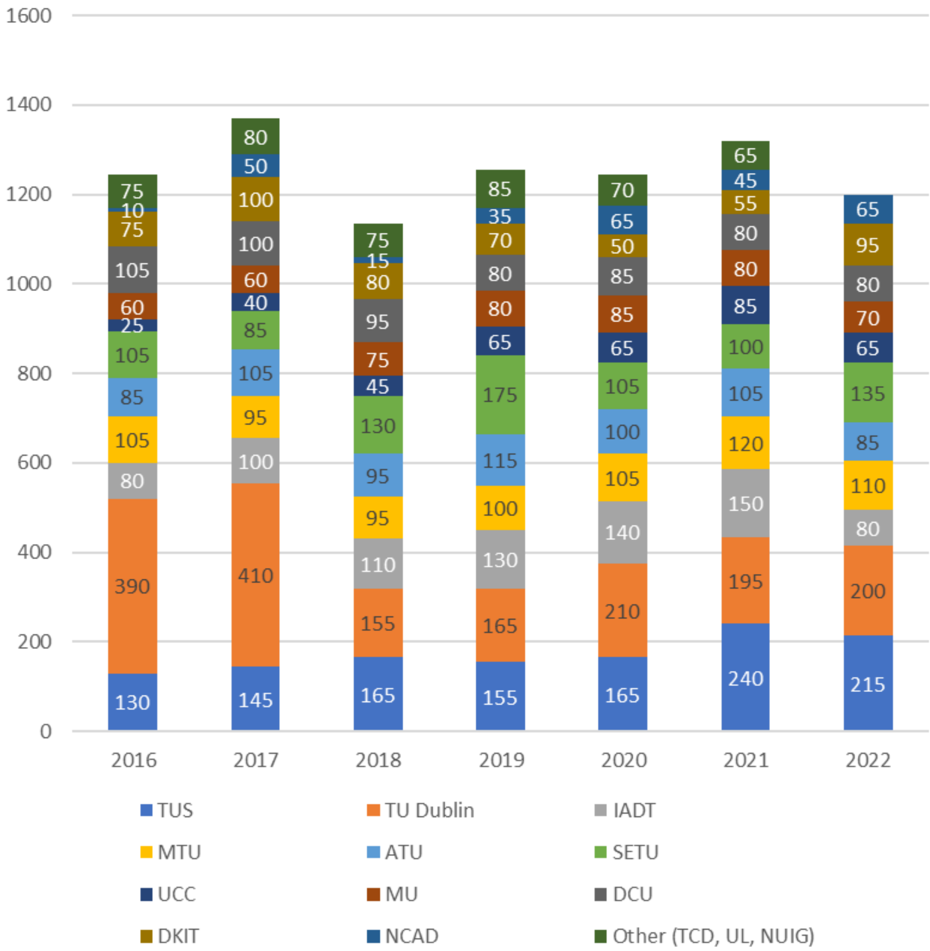
Although employment in the screen and content creation sector and even the third-level educated cohort within this group does not exclusively rely on graduates from HEIs, the decline in the number of students reflected in Figure 5.5 may set off an alarm bell regarding the size of the future available workforce in this field. A similar signal can be picked up from Source: Higher Education Authority data.

Table 5.5, which shows the number of students originating from County Wicklow[63] enrolled in film and creative industries degrees between 2018 and 2023. Note, however,

[62] HEIs data related to programmes categorised under '(0211) Audio-visual techniques and media production' are considered relevant for these statistics.
[63] Note that 'students originating from Co. Wicklow' refers to students who have their residence in Co. Wicklow but does not include students who (temporarily) changed their residence to the location of their study. Students are likely to change their residence once commuting to the location of study is not a practical option anymore due to the distance from the original residence.

that the enrolment figures are considerably higher for the film sector compared to the other three sectors of interest (as will be shown in Chapters 6-8), which confirms the heritage of screen in the Wicklow area. Nevertheless, a slight decline in the number of students can be noticed after 2019, which can be put down to the disruptive effect of the COVID-19 pandemic on the delivery of these courses.

Figure 5.5 HEIs Graduates – Screen and Content Creation Programmes



Source: Higher Education Authority data.

Table 5.5: SETU students (Wicklow origin) enrolled in film and creative industries degrees

	2022-2023	2021-2022	2020-2021	2019-2020	2018-2019
Film & Creative Industries Degrees[64]	29	23	27	27	35

Source: Data provided by SETU.

64 Degrees included: BA in Visual Communications and Design; BA (Honours) in Visual Art; BSc (Honours) in Visual Communications and Design; BSc (Honours) in Computer Games Development; BSc (Honours) in Computing in Interactive Digital Art and Design; BSc (Honours) in Creative Computing; BSc (Honours) in TV and Media Production; Certificate in Creative Writing (Poetry); BSc (Honours) in Computing in Interactive Digital Art and Design; Certificate in Graphic Design; BSc in Multimedia Applications.

5.4.2 Further Education and Training

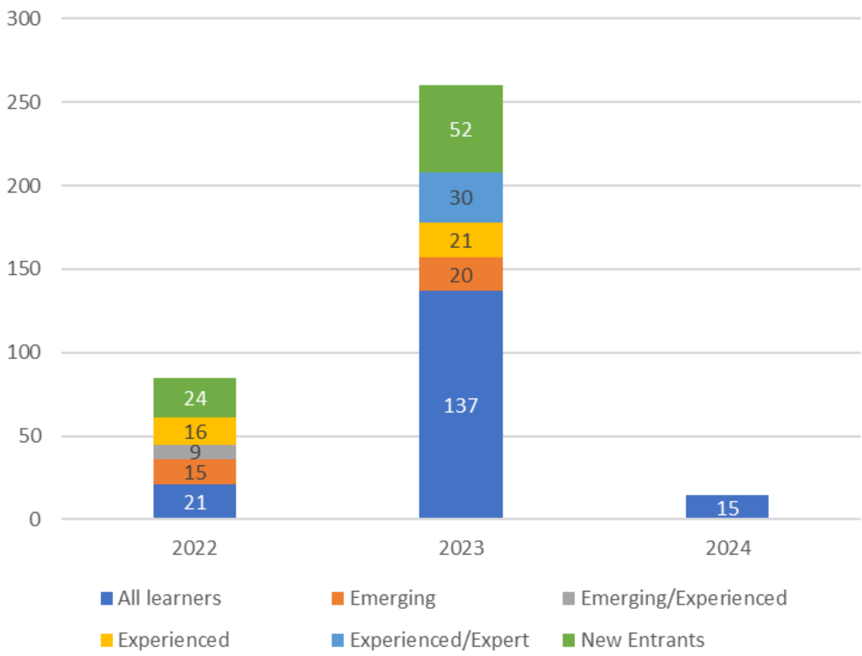
This section presents data on the skills development opportunities for the film and television industry provided by the Crew Academy East and as part of Section 481 skills development, as well as the further education and training courses for the arts, crafts, and media sectors delivered by the Kildare/Wicklow ETB.

Crew Academy East

Crew Academy East delivers programmes and training opportunities for new, emerging, and established talent at the Clermont Campus in Rathnew. The courses offered range from the three-week structured work placement programme *Passport to Productions*, to short courses (1-3 days), mentoring schemes and networking events. A QQI certified Level 6 training delivery and evaluation programme is also run several times a year for participants at all levels of experience.

Figure 5.6 shows the number of participants registered for all types of events ran between July 2022 and March 2024. Notably, more than three quarters of the total 3,345 attendees were registered to networking events aimed at new entrants to the sector (including secondary school and transition year students). Additional networking events organised at the Cork and Galway film festivals and employability events increase the number of these attendees to nearly 90% of all participants. Overall, **in 2023, 260 learners took part in short courses, accredited programmes, and work placement programmes, up from 85 participants in 2022**.

Figure 5.6: NTA Crew Academy East Skills Development Programmes

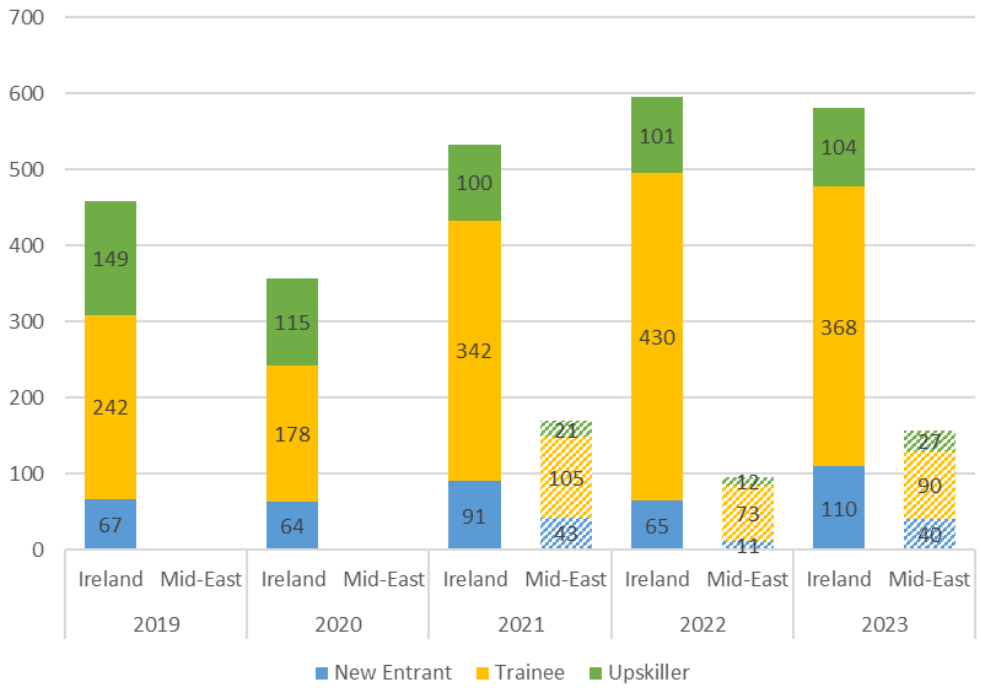


Section 481 Skills Development

Since the inception of the Section 481 skills development process in April 2019, Screen Ireland have had the opportunity to continuously engage closely with production companies to support workplace learning. As part of the new Section 481 model, each production identifies the numbers of skills participants and classifies them as new entrants, trainees and people who are upskilling on productions. As a result, each participant has a structured work-based learning programme on the production, including a learning plan that is developed based on their skills gaps for the period of employment on that production. Prior to the submission of a skills development plan, the S481 skills team would meet with each of the companies and actively encourage each production to ensure skills plans are addressing skills gaps in industry, the competency framework is now embedded within the individual learning plans. This process gives a better opportunity to track skills against existing skills gaps.

Figure 5.7 shows the yearly number of skills participants tracked through the S481 skills development process since 2019. The number of new entrants increased significantly in the wake of the Covid-19 pandemic (+69% from 2022 and 21% from 2021). Despite a slight decline, 2023 saw a consolidation of the upward trend that started in 2021. Of the 582 learners registered in 2023, 104 took part in upskilling programmes, 368 were trainees and 110 were new entrants. Due to the high number of productions that are at least part-filmed in Wicklow locations[65] and/or using Wicklow studio facilities, it can be assumed that a significant part of the Section 481 skills development contributed of the training and upskilling of the local workforce.

Figure 5.7: Section 481 Skills Development Participants 2019-2023



[65] For example, according to Wicklow Screen data, almost 60 productions (e.g., films, short films, series, commercials, documentaries, photography, music videos) were filmed in public Wicklow locations (such as Wicklow, Greystones, Arklow, Baltinglass and Bray) during 2023. Large-scale productions receiving Screen Ireland support included Baltimore, Clean Sweep and The Miracle Club. Many more productions were filmed in 2023 without Screen Ireland funding support but were eligible for Section 481 relief.

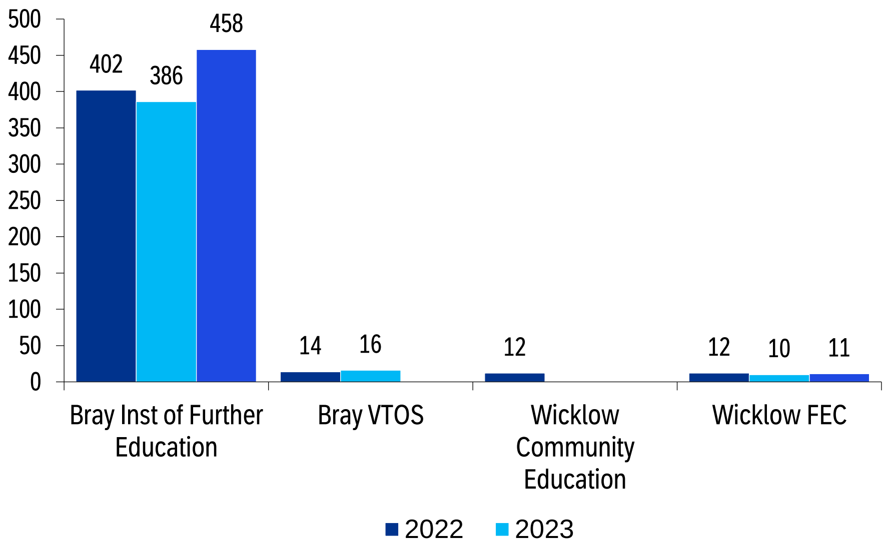
KWETB – Arts and Crafts

KWETB offers courses in arts and crafts up to level 6, which include Post Leaving Certificate (PLC) and Vocational Training Opportunities Scheme (VTOS) courses at NFQ levels 4-6 in performing arts, music production, art and design, creative craft, and furniture design. While a number of courses are delivered across several KWETB FET centres in Bray and Wicklow, the majority of programmes are run by the Bray Institute of Further Education (BIFE). Course duration ranges between 14 and 52 weeks, with the majority of courses being offered on a full time basis and on site.

Figure 5.8 shows the distribution of course places across FET centres based on their delivery date start in 2022, 2023, or 2024. The list of courses with more details regarding their title, programme, award level, duration, capacity, and number of filled places is provided in Appendix 11.5.

The overall course capacity in 2022 and 2023 was 440 and 412 places respectively, with 469 places planned for 2024. As far as 2024 delivery is concerned, it should be noted that only a small number of planned courses are live on the system as yet and new courses are added on a continual basis in response to need in the area. Notably, across the FET centres in Bray and Wicklow, **only 55% of the course places available were filled in 2022 and 2023.** The most popular courses included ‘Art Portfolio Preparation’; ‘Art, Craft and Design’; ‘DJ Techniques & Music Production’; ‘Furniture Design and Manufacture’; ‘Graphic Design; Music Performance’; and ‘Music Production’. Conversely, the lowest demand was recorded for courses such as ‘Acting Advanced for Stage & Screen’ (with the exception of the relative high demand for the Year 1 course starting in 2022); ‘Dance Technique Performance & Choreography’ (BTEC and National Diploma); and ‘Traditional Irish & Folk Music Performance’.

Figure 5.8: KWETB Places on Arts and Crafts Courses, 2022-2024



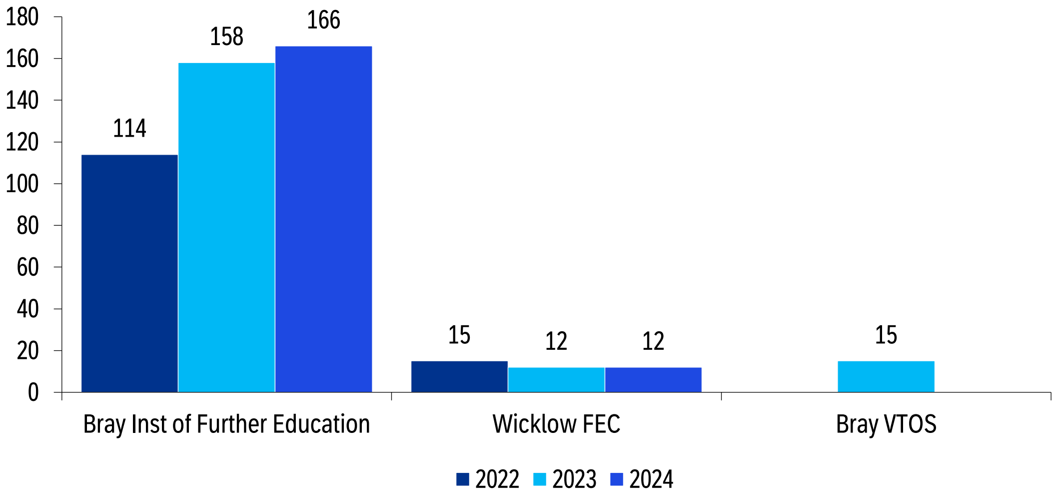
KWETB – Media Graphics Communication Courses

Courses in media, graphics, and communications offered by KWETB include a number of Level 5 and 6 certificates in creative media production, a BA (Hons) in Immersive Media Production and several Adobe Certified Professional certifications in Illustrator, Design, and Photoshop. Similarly to arts and crafts, the majority of media courses are delivered at the Bray Institute of Further Education (BIFE). Course duration ranges between 34 and 53 weeks, with the majority of courses being offered on a full time basis and on site. The list of courses with more details regarding their title, programme, award level, duration, capacity, and number of filled places is provided in Appendix 11.6.

Figure 5.9 shows the distribution of course places across FET centres based on their delivery date start in 2022, 2023, or 2024. The overall course capacity in 2022 and 2023 was 129 and 185 places respectively, while 178 places are planned for 2024 (noting that only a small number of planned courses post-2023 are live on the system as yet and new courses are added on a continual basis in response to need in the area).

In general, across the FET centres in Bray and Wicklow, **about half of the course places available in 2022 and 2023 were filled**. The most popular courses included the Level 5 Certificate in Digital Arts & Creative Media at the Bray Adult Education Centre (BAEC); the Level 5 Certificate in Game Design at BIFE; and the Level 5 and 6 Certificates in Film and Television Production at BIFE. Conversely, the lowest demand was recorded for courses such as the BTEC Higher National Certificate in Film Special Effects, the Level 6 Certificate in Games Development, and the Level 5 Certificate in Podcasting & Streaming, all of which were delivered at the BIFE.

Figure 5.9: KWETB Places on Media Graphics Communication Courses, 2022-24



Overall, the number of places made available by the KWETB for media and other performative arts far outnumber the course offer for other sectors (as will be shown in Chapters 6-8). Thus, the further education and training offer in Wicklow demonstrates this county’s heritage in the screen and content creation sector and the high demand for upskilling in this area.

Work Placement Programmes

A number of work placement programmes have been developed for the screen and content creation sector, including a very successful animation, VFX and games traineeship, a CGI technical artist apprenticeship, the Passport to Production work placement programme, and an accounts traineeship in the film and TV sector.

Traineeships

Acting as a bridge between the academic side and the workplace, the **Animation, VFX & Games Graduate Traineeship** programme was developed by Screen Ireland and Animation Skillnet (currently Cultural & Creative Industries Skillnet) under the Skills Connect Programme and has been running since 2017. While initially the trainees were placed in animation and VFX studios for up to six months, since 2021 the programme is run twice per year for three months to facilitate a wider range of studios and a greater number of potential candidates taking part in the programme. Every year, around 12-14 trainees are placed in 4-5 participating studios, which tend to be located in Dublin, Kilkenny, Galway, and Carlow. Since its launch in 2017, the programme offered **paid placements to approximately 85 trainees in host companies**, with over 90% of participants going on to gain further work in the industry either with their host studio or with another studio[66].

An **Accounts Trainee in the Film & TV Sector** programme developed by Screen Ireland and the Screen Skillnet was run in December 2022. About 15 participants were trained in the main elements of accounting within the film industry over six days followed by a three-week paid placement in 2023. While the programme could be run again, it remains challenging to find industry professionals who can deliver training in film accountancy or production accountancy.

Apprenticeships

A two-year **CGI Technical Artist Apprenticeship** was developed and launched in 2019 by the Animation Skillnet (currently Cultural & Creative Industries Skillnet) in association with Technological University Dublin and Screen Skills Ireland to **meet the growing demand for animation personnel**. The apprenticeship was at Level 8 on the National Framework of Qualifications and was designed for graduates with a level 7 award in either animation, special effects or a related design discipline, existing employees in the animation industry who may not have a formal qualification, and graduates with a level 6 award in either animation, special effects, or a related design discipline with relevant industry experience.

Six apprentices were included in the first intake in 2019. The project-based nature of the creative industries made it difficult to obtain the employers' commitment to take on an apprentice for a minimum of two years. As a result, the programme has since been discontinued.

Structured Work Placements

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[66] Animation Skillnet (2022). *Review of the Animation, VFX and Games Graduate Traineeship Programme 2014 to 2022*. Available from: A-Review-of-the-Animation-VFX-and-Games-Graduate-Traineeship-Programme-2014-to-2022.pdf (creativeskillnet.ie).

Passport to Production is a Screen Ireland flagship training and work placement programme aimed at new entrants who want to work in the live-action film and TV industry. The programme has been accredited by Technological University Dublin as a level 6 QQI 10 ECTS credit programme and delivered through the National Talent Academy for Film & TV Crew.

The programme provides six days of learning facilitated and delivered by experts in the industry followed by a three-week paid structured work placement where participants continue to receive structured on-the-job training. East Crew Academy delivers the programme in the Mid-East region several times a year. The first cohort of 15 new entrants started their training in November 2022 at the Clermont Screen Hub in the Rathnew campus.

Micro-Credentials

The Cultural & Creative Industries Skillnet, which since 2023 combines three previously existing Skillnet networks (Animation, Screen, and Immersive Technologies), has partnered with Trinity University College to support three microcredentials aimed at highly skilled professionals in the animation sector:

- Introduction to XR: Applications and Technology – 12 weeks, 20 places (one intake per year), Level 9 NFQ.
- Spatial Audio – 12 weeks, 5 places (one intake per year), Level 9 NFQ.
- Motion Picture Engineering – 12 weeks, 5 places (one intake per year), Level 9 NFQ.

5.5 Matching Skills Demand and Supply in Screen and Content Creation

Following a concise summary of current levels of skills supply across both higher education and further education and training, this section estimates the future provision levels that will be required to meet the skills needs brought about by employment growth forecasted up to 2030.

Several caveats must be made in relation to skills supply projections. Notably, severe data limitations surround the sectoral and geographic employment of third-level graduates in screen and content creation disciplines. Similarly, with the exception of KWETB course provision at the FET centres based in Co. Wicklow, there is no systematic provision of information about the county-based origin of participants to skills development opportunities offered by education providers, including Screen Ireland, Crew Academy East, Skillnet business networks, or microcredential programmes. As a result, the calculations underlying the projected higher and further education demand and supply for Co. Wicklow rely on assumptions that increase the uncertainty of projections. Nevertheless, the scenarios presented help build awareness of the level of education provision required to meet the projected employment for this key sector of interest for Co. Wicklow.

The chapter concludes with an overview of suggested approaches to address the skills gaps in the screen and content creation sector.

Summary – Higher Education and FET Skills Supply

Table 5.6 summarises the HEIs graduate pipeline for screen and content creation-related disciplines in 2022 and FET course participants in 2023. Across Ireland, 1,200 students graduated from 14 HEIs in 2022. Just over half (660) of these students graduated from HEIs located in the proximity of County Wicklow (Dublin, Maynooth, Carlow, Waterford).

The FET course offer for the sector includes a significant number of places provided by the KWETB for media and other performative arts, as well as industry-focused short courses and Passport to Production work placements offered by the National Talent Academy for Film & TV Crew East (Crew Academy East). Additional opportunities for skills development through structured work-based learning were provided in 2023 by 15 regional productions under Section 481 as well as the traineeships offered by the Animation Traineeship programme supported by Screen Ireland and the Cultural & Creative Industries Skillnet under the Skills Connect Programme. Up to 30 places in microcredential courses are also available for the highly skilled professionals in the animation sector. Notably, while the KWETB course offer targets the Wicklow population, the other FET opportunities included in Table 5.6 are aimed at an Eastern/Leinster (Crew Academy East and Section 481) and/or national audience (traineeships and microcredentials).

Table 5.6: HEIs and FET Graduate Pipeline

Education and Training Providers (HEIs & FET)	Graduates / Course Participants
HEIs (Dublin, Maynooth, Carlow, Waterford) – 2022	660
KWETB – Arts & Crafts Courses (2023)	228
KWETB – Media Graphics Communication Courses (2023)	107
Crew Academy East – Work Placements (2023)	15
Crew Academy East – Short Courses (2023)	260
Animation Trainees (2023)	14
Section 481 Skills Development Process (15 regional productions) (2023)	157
TCD Microcredentials (2023)	30

Source: Data collated from HEA, KWETB, Screen Ireland, Crew Academy East, TCD, Cultural & Creative Industries Skillnet.

Higher Education Requirements to 2030

Table 5.7 presents the projected employment growth to 2030 under the three employment growth scenarios and the level of higher education provision required to meet each of the resulting skills demand scenarios.

The starting point for identifying the required level of higher education provision is the projected increase to 2030 in the number of employees in screen and content creation occupations in Co. Wicklow under the baseline, high, and low growth scenarios (detailed in Section 5.3). To account for losses due to retirement and career changes, an expected job displacement rate of 3% annually is applied to the projected annual number of employees. A factor of 73%[67] is then applied to determine the share of third-level graduates out of the total additional employment project to 2030. Thus, the additional higher education skills demand for the 2023-2030 period is projected to be 509 persons in the baseline scenario, 1,555 persons in the high growth scenario and 93 persons in the low growth scenario.

The scenario-specific projected higher education skills demand 2023-2030 figures are then matched with the required HEIs graduate output for County Wicklow. This exercise is based on several assumptions:

1. The 2022 national screen and content creation graduate pipeline (i.e., 1,200 graduates) is kept constant until 2030[68].

2. Taking into account a competitive labour market with professions in the ICT, consulting and other industries absorbing significant talent from the pool of screen and content creation graduates, only 50% of each annual cohort (i.e., 600 graduates) are assumed to commence employment in the sector nationwide.

3. The projected additional higher education skills needs for Co. Wicklow to 2030 are then matched with the national annual graduate pipeline of 600 people to determine how many graduates are required to commence employment in Co. Wicklow under each of the scenarios.

The results of this analysis indicate that between 2023 and 2030, **10.6% of national screen and content creation graduates would be required to commence employment in Co. Wicklow annually under the baseline scenario** to match the projected higher education skills demand 2023-2030 in Table 5.7 (i.e., 509 people).

Notably, **under the high growth scenario, nearly one third of national graduates (i.e., 1,555 people) would need to gain employment in County Wicklow** to meet the skills demand projected by high employment growth.

Attracting such a large share of the graduate cohort to County Wicklow is envisageable considering that 55% of national graduates in 2022 were based in the proximity of Co. Wicklow (Dublin, Maynooth, Carlow, Waterford). Nevertheless, a number of challenges will need to be overcome to attract a significant number of new young employees in the county, including those related to housing, transport and connectivity.

[67] Calculated based on the 2023 SOLAS Skills Bulletin data on the share of third level degrees across occupations and their estimated representation in the screen and content creation sector.
[68] As higher education stakeholders consulted noted, assumptions about how the educational offer might change in the medium and long-term would be too far-reaching.

Table 5.7: Projected employment and higher education needs to 2030

Projected Employment	Baseline Scenario	High Growth Scenario	Low Growth Scenario
Screen & content creation employment in 2022		1,821	
+ Projected additional employment 2023-30	+230	+1,513	-272
+ Projected job displacement 2023-30	+467	+618	+399
= Projected total additional employment 2023-30	+698	+2,131	+128
Percentage of persons with higher education		73%	
Projected HE skills demand 2023-30	**+509**	**+1,555**	**+93**
Percentage of national HEI graduate pipeline required to match skills demand	**10.6%**	**32.4%**	**2.0%**

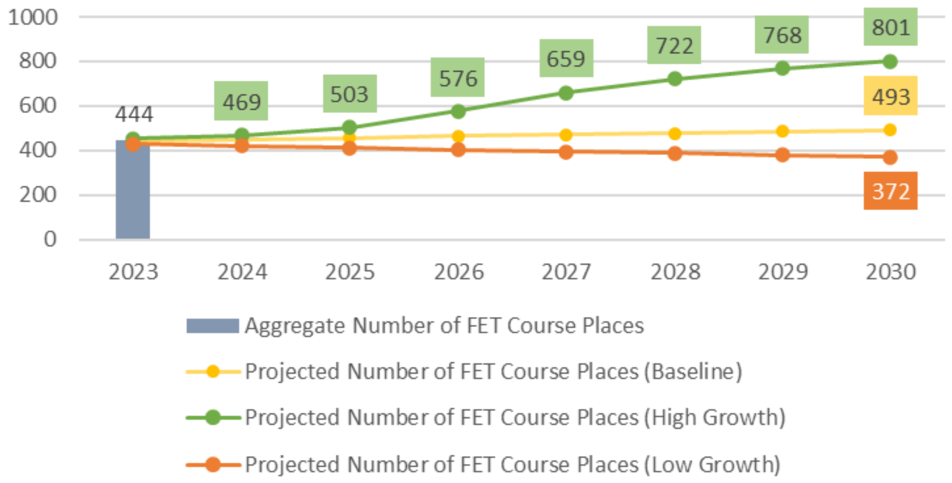
FET Requirements to 2030

The projected number of FET course places required to match the scenario-specific projected employment growth to 2030 is determined by taking into account the total number of local and broader provision of FET course places in 2023 (detailed in Table 5.6) and estimating the share of Wicklow participants in these programmes[69]. This step yields a total number of 444 FET entries in 2023, with some participants potentially enrolling in multiple courses. The 444 FET course completions in 2023 correspond to approximately one place for every 4 employees in the sector.

Maintaining the FET uptake at current levels (i.e., 1 course place for every 4 employees) and taking into account employment growth to 2030 means that the number of FET course provision needs to increase to 493 places (+49) offered annually by 2030 under the baseline scenario and 801 places (+357) under the high growth scenario. The annual increase in FET provision required annually to match employment growth under each of the three scenarios is presented in Figure 5.10. Potential improvements to 2023 levels of FET uptake, such as ensuring that at least a third of employees are engaged in lifelong learning each year (i.e., amounting to one course completion by every three employees), would require higher numbers of course places – namely, 684 places under the baseline scenario and 1,111 course places in the high growth scenario (with 516 places required even under the low growth scenario).

[69] As precise data are currently unavailable, percentages of enrolled students from Co. Wicklow for individual FET courses are based on below estimates that are susceptible to significant variation: NTA Crew Academy East Skills Development Programme – 20% of national enrolments; Section 481 Skills Development Programme - 20% of regional (East/Leinster) enrolments; KWETB Places on Arts and Craft Courses – 100% county enrolments; KWETB Places on Media Graphics Communication Courses – 100% of county enrolments; Traineeships – 20% of places offered nationally (noted counties of work are Dublin, Kilkenny, Galway and Carlow); Passport to Production work placements – 50% of regional (East/Leinster) enrolments; Micro-Credentials 50% of national offer (online courses).

Figure 5.10: Projected FET Screen and Content Creation Course Places, 2024-2030



Matching Skills Supply with Labour Market Demand – Areas for Action

This section puts forward several approaches that can help bridge the labour market demand and employment growth to 2030 with enhanced higher and further education and training provision that responds to industry skills needs.

Monitoring the HEIs graduate pipeline

The skills gap analysis for the county's screen and content creation sector indicates that between 11% and 32% of national screen and content creation graduates will be required to commence employment in Co. Wicklow annually to meet the skills demand needs under scenarios of moderate and high employment growth. However, currently the data on the sectoral and geographic employment of third-level graduates in screen and content creation disciplines is not publicly available. As a result, the current share of national graduates gaining employment in the county is not known. Gaining access to data on graduate outcomes is key to enable the formulation of a strategy to attract new graduates to Co. Wicklow. Engaging with the HEA to inquire about the availability – or proposed initiation of tracking – of data on how many HEIs graduates end up working in the screen and content creation-related fields and the location of their employer would help inform the current and future graduate skills gap analyses.

Placement programmes as talent pipelines

Wicklow stakeholders highlight the need for graduates to improve their "work readiness" to a certain level expected by industry. To respond to this nationwide challenge, organisations such as Screen Ireland, the National Talent Academies, and the Animation Skillnet (currently known as the Cultural & Creative Industries Skillnet have developed **work placement programmes that offer an upskilling path from graduate level to professionals working in studios**. Examples of such programmes include the Animation VFX and Games Graduate Traineeship and Passport to Production.

Evaluations of current placement programmes have confirmed the popularity and utility of these programmes with screen companies, as they are regarded as a way of accessing talent that might not otherwise be available to them. Similarly, trainees regard these programmes as an essential stepping stone into industry and speak highly of the formal and informal opportunities offered by the studios and positive impact on their employability. Thus, **work placement programmes create a talent pipeline that gives studios access to skilled trainees**, which is crucial for meeting the sector's needs[70].

Nevertheless, trainee intakes are still relatively small at around 12-14 graduates each year and there is significant competition to achieve a placement in oversubscribed programmes. Additionally, companies outside the Dublin area continue to experience difficulties in securing talent due to the housing challenges faced by trainees. To ensure that Wicklow companies are in a good position to take advantage of work placement programmes to identify talent in the animation sector and beyond, screen stakeholders in the county could explore possible avenues to support more local companies and potential trainees to access these programmes.

Broadening the scope of work-placement programmes

Participation to the Animation, VFX & Games Graduate Traineeship is recognised as an attractive and valuable route into the Animation, VFX & Games sector. Similarly, participants to the Passport to Production are offered work placement with high-end film and television productions, which enables them to access industry roles at the end of their placement. Given the importance for new entrants to gain industry-relevant experience to secure future employment, there may be opportunities to develop similar programmes for other screen and content creation areas and consider a broader range of organisations as placement companies. The training facilities available at the Clermont Screen Hub may offer opportunities for Wicklow screen and content creation stakeholders to use the hub for the development of similar future programmes and ear-mark resources for the support of local companies participating to the programmes.

Sector-adapted apprenticeships

As noted by stakeholders, the structure of standard apprenticeships – including the minimum two-year duration and on-the-job experience with the same employer – is not adequate for most employers in the screen and content creation sector, as few productions/projects last for such a long period of time. As a result, few apprenticeships have been designed for this sector, although most stakeholders expressed the view that apprenticeships need to be made available more widely to new entrants given the importance of nurturing work-based skills and on-the-job experience for most roles.

For example, the CGI Technical Artist Apprenticeship was discontinued after the first intake of 2019 as it was challenging to obtain the minimum two-year commitment from employers to take on an apprentice for such a long period of time given the nature of the creative industries as project-to-project. Similarly, the recent change in the duration of the animation traineeships from six to three months also reflected the project-based nature of the sector and allowed the placement programme to support studios who might have projects suitable for trainees at different times of the year. Therefore, as multiple consultees suggested, an apprenticeship programme that is adapted to the needs of this sector – for example, by allowing for work assignments with multiple employers – should be considered in the near future.

[70] Animation Skillnet (2022). *Review of the Animation VFX and Games Traineeship Programme*, p. 12.

06 Key Sector Analysis: Agri-Food & Forestry

6 Key Sector Analysis: Agri-Food and Forestry

6.1 Factors Shaping Demand for Skills

This section outlines recent trends and developments in the agri-food sector as well as national and local policy responses aimed at an inclusive sector recovery in the aftermath of the COVID-19 pandemic. An overview of the agri-food and forestry sectors in Co. Wicklow that describes the profile of the local labour force and current employment levels, farm size, crop and food production, and livestock farming is also included.

6.1.1 International Trends and Implications for Workforce and Skills

Labour and Skills Shortages

OECD's assessment of the agriculture and food sector as of 2023 highlights the labour and skills shortages that are experienced across all OECD countries.[71] The shortage of both low skilled labour in some areas and high skilled labour in others has created new challenges for policymakers across OECD countries. The demand for labour in agriculture, the report states, is driven by the interaction of several factors: **farm structural adjustment** (increase in average farm size, change in ownership structure, demographics); **technological advances** (increased automation, robotics, drone technologies); and the **changing demand of consumers** for attributes such as animal welfare, environmental footprint, and food quality[72].

Across the agri-food sector, the demand for labour is highly segmented and dynamic with different categories of employees, including family owned-operators, managers, and employees receiving wages, casual, seasonal, and temporary workers (including via migration). Moreover, the OECD acknowledges the dual trend of **falling total employment in the sector**, while at the same time an **increasing reliance on temporary and seasonal workers**, many of whom are sourced via migration. These challenges are compounded by the relatively small, and declining, contribution of agriculture to GDP, and the negative public perception of the sector offering limited career prospects.

Additionally, the OECD report found that the agriculture and food sectors have the **highest rate of skills misalignments** (including over and underqualification) across all economic sectors. Employment in the sector is expected to continue to fall over the next decade, particularly as far as low skilled workers are concerned. The greatest skills gaps for the sector include social skills and teamwork, problem solving, learning, planning, and job specific skills. **Ireland was singled out as the country with the highest occupational shortages for agriculture, forestry, and fishing[73]**.

The OECD further reports that, over the last decade, there has been an increase in enrolment in agriculture-specific education in many OECD countries, but the enrolment in agricultural tertiary education is still low relative to other sectors. Yet, it is also reported

[71] OECD (2023). *Labour and Skills Shortages in the Agro-Food Sector*. OECD Food, Agriculture and Fisheries Paper No 189. Available at: https://doi.org/10.1787/ed758aab-en.
[72] Ibid., p. 3.
[73] Ibid., p. 13.

that **farmers tend to have higher participation in informal learning and training courses**, which are often offered by farm extension services, industry, and farmers' organisations. Thus, the report asserts that **targeted agricultural education programmes can make an important contribution to addressing the labour and skills imbalances** in the sector and can also improve its attractiveness by adapting courses to meet the skills needed to meet the changing demands of the sector and providing lifelong training to all workers.

Despite the labour and skills shortages, agricultural production and productivity have continued to increase, albeit decelerating in the most recent decade. Emerging labour-saving technologies bring new opportunities to the sector to make it more attractive and responsive to new demands, but they raise important questions on the continuous need for upskilling of the labour force.

The Irish Case

Agriculture is one of the few sectors that has recorded a notable decline in employment since 2019. Between Q4 2021 and Q4 2022, employment in the agriculture, forestry and fishing sector declined by 6% (6,000 fewer persons) reaching 4% of national employment[74]. As a result of the challenging recruitment process and the re-introduction of quotas in 2021 for horticulture operatives and dairy farm assistants, agriculture was one of the sectors with the highest number of employment permits issued in 2022 (i.e., 4,311 permits accounting for just under 11% of all permits issued in 2022) and highest increase from 2021.[75]

As one of the countries that shared their experiences in addressing the labour and skills shortages in agri-food at the OECD workshop that informed the final report published in 2023, Ireland highlighted the major challenges the country faced to attract suitably qualified workers. The most severe shortages were experienced for general farm general farm operatives and butchers in meat processing, farm labour in horticulture (and dairy), and general operatives in food processing. Higher level skills gaps also existed in sales, senior management, marketing, R&D, languages, and digital knowledge, as highly educated and skilled workers were difficult to attract in the food sector.[76]

Some of the key barriers preventing young people from entering the sector include low wages, long working hours, and lack of career prospects. Therefore, to improve talent attraction and retention in the sector, more emphasis is required on targeted education, improving access to apprenticeships and courses tailored to industry needs. Equally important is the role of employers in making workplaces more attractive by improving wages, working conditions, and training opportunities. Notably, the OECD report highlights the need to **improve the statistical coverage of labour and skills gaps in the sector so that part-time and temporary labour, as well as gender, can be better reflected and targeted at policy level**.[77]

Traditional reliance on migrant labour to fill labour shortages has become more problematic, particularly in the wake of the COVID-19 pandemic, as many international

[74] SOLAS (2023). *National Skills Bulletin 2023*, p. 3.
[75] Department of Enterprise, Trade and Employment. *Employment Permit Statistics 2022*. Available from: Employment Permit Statistics 2022 - DETE (enterprise.gov.ie).
[76] Ibid., pp. 27-28.
[77] Ibid., p. 5.

staff in the sector have left Ireland. Nevertheless, the Irish agri-food sector is still dependent on international workers, with 29% of its workforce (50% in meat) being from outside of Ireland compared to 17% for the overall workforce[78]. Importantly, reliance on international workers needs to be matched with education and training supports, particularly as far as language training is concerned.

Industry 4.0

An international review of the global food industry needs in terms of skills found that the role of robotics, Artificial Intelligence (AI), Internet of Things (IoT), machine learning and greater automation are some of the new Industry 4.0 artifacts that will require professional skills developments[79]. This research found that in addition to the technical development of the workforce, the food industry will require greater focus on accentuated social, emotional, higher cognitive and technological skills, rather than basic cognitive, physical, and manual skillsets that have been focused on previously.

Some of the key **global skillsets** that are vital in this area are **food safety auditing and certifications**, such as the ISO 22000, BRC, SQF. Additionally, recent research[80] highlights the increasing need for quality control and testing procedures in this sector, which requires further upskilling in food science and technology aspects to maintain a high standard of production and involving the most innovative current practices within the area. Furthermore, technology developed within Ireland focusing on the traceability of organic foods using digital twin modelling further highlights some of the opportunities that can arise locally to propel best practices in the agri-food sector[81].

In the ten-year strategy put forward for the industry in 2019[82], **Food Drink Ireland** highlighted the need to ensure that the skills base of the Irish agri-food industry reflects not just the current business demands but also the challenges of future growth in existing and new markets. In this context, the potential of **automation** was singled out as a response to the volatility in the supply of labour to food manufacturing. However, this research also noted that the application of automation is still in its infancy across the food and drinks sector in Ireland.

Climate and Biodiversity Crises

Globally, societies face dual and intertwined climate and biodiversity crises, making sustainability a critical theme in the agri-food outlook for the coming decade. Agriculture is one of the key drivers of both greenhouse gas emissions and the loss of nature through land use change, pollution, and resource exploitation. At the same time, the agri-food

[78] Skillnet Ireland (2020). Cultural diversity challenges and opportunities in the Irish agri-food sector. Available at: Cultural diversity challenges and opportunities in the Irish agri-food sector, p. 2.
[79] Akyazi et al (2020). “A Guide for the Food Industry to Meet the Future Skills Requirements Emerging with Industry 4.0”. *Foods* 9, 492. Available at: foods-09-00492 (1).pdf.
[80] Carlisle, Ivanov, and Dijkmans (2023). The digital skills divide: evidence from the European tourism industry. *Journal of Tourism Futures* 9(2): 240-266. Available at: The digital skills divide: evidence from the European tourism industry | Emerald Insight.
[81] Murphy et al (2020). “Changes in Consumers’ Food Practices during the COVID-19 Lockdown, Implications for Diet Quality and the Food System: A Cross-Continental Comparison”. *Nutrients* 13, 20. Available from: Changes in Consumers’ Food Practices.
[82] Food Drink Ireland (2019). *Sustaining growth – economic impacts and policy challenges to 2030*. Available from: Food Drink Ireland launches new 10-year strategy for industry - IBEC.

sector increasingly recognises its key role in delivering a global low-carbon and nature-positive economy and the need to take an integrated approach to climate crises.

Indeed, Ireland's Climate Action Plan 2024 states that the agriculture sector is undergoing a significant transformation to deliver the reduction in GHG emissions required which will impact across Ireland's agriculture and food production systems. Guided by the Food Vision 2030 Strategy, Irish farmers and food producers will further prioritise delivery of environmental, social, and economic sustainability. Significant additional investment will be required to underpin the proposed diversification measures.

As part of this broader shift, environmental labelling, such as carbon footprint labelling or eco-certifications, is becoming more prevalent as consumers seek transparency regarding the environmental impact of products. In Ireland, this trend aligns with efforts to promote sustainable food production and transparent supply chains.

Regenerative Agriculture

Regenerative agriculture focuses on **improving soil health and biodiversity**, which is crucial for a country like Ireland, known for its fertile land. Irish agricultural policies and strategies have gradually incorporated regenerative practices to maintain and enhance land quality, which can contribute to long-term sustainability. Promoting regenerative agriculture practices aligns with the country's ambitious goals to become carbon-neutral by 2050, as healthier soils can sequester more carbon and reduce the agricultural sector's emissions. To support this emerging sector and embed agri-food in the circular, regenerative bioeconomy, a dedicated programme for High Nature Value (HNV) farmland was proposed under Food Vision 2030 along with the researching and promotion of the 'Regenerative Agriculture' concept under Irish conditions.

Developing the **talent and expertise needed by the organic and regenerative farming sectors** is essential to meet the targets of the Climate Action Plan. **Funding support for re-skilling within the agri-food sector** towards organic, biological, and regenerative farming is provided through the National Organic Training Skillnet (NOTS), which offers a wide range of specialist courses for farmers, food businesses, growers, processors, agricultural professionals, and consultants working in the organic sector.

Alternative Proteins

The demand for alternative proteins, such as plant-based and cell-based products, is growing globally. Many factors are driving the shift in consumer demand from animal protein to alternatives, including sustainability concerns, health awareness, ethical and religious views, the environment, and animal rights. The accelerated growth of the plant-based industry is captured by public surveys and the growing investments in this market. For example, a global survey conducted by the National Sanitation Foundation (NSF) in 2021 showed that 88% of respondents expected consumer demand for plant-based products to increase. In the USA, the alternative proteins market reached US $14.1b in 2021 and is forecast to grow to US $17.4b by 2027[83]. In Singapore, investments in alternative proteins doubled from US$85 million in 2021 to US$170 million in 2022.[84] As

[83] Walter and Krupke (2023) *How alternative proteins are reshaping meat industries*. Available at: Meatless happiness – Alternative proteins on the rise | EY - Global.
[84] Randstad (2023). *Singapore's alternative proteins market: in-demand jobs and skills*. Available at: Singapore's Alternative Protein Market: In-Demand Jobs and Skills | Randstad Singapore.

a result, key players in the market have started reviewing their product strategy in the alternative meat segment and the reimagined food system.

Critically, the growth of the alternative protein industry requires new skills and talent specialising in food chemistry and biological engineering. Therefore, disciplines such as food science, process development, manufacturing and food safety play a key role in providing the technical skills needed for the alternative food industry. Emerging jobs in alternative proteins range from technical to commercial and include R&D scientists, process engineers, and market managers.[85]

The market for plant-based food and drinks is expected to grow in the medium and long term in Ireland as well, as consumers seek to limit their intake of meat for health reasons as well as for sustainability.[86] Barriers affecting consumers purchasing natural/organic products and plant-based alternatives to traditional proteins include the price, value for money, and convenience, as these products are generally seen as more expensive than regular products.[87]

The **opportunities offered by the expansion of the alternative proteins sector are also highlighted in Food Vision 2030**, which emphasises the need for Irish agriculture to diversify. By fostering greater agrotech innovation, Ireland can also produce more of its food locally thereby increasing its food security and reducing its carbon footprint. **Co. Wicklow can position itself at the heart of the alternative protein food revolution** by championing and supporting local pioneers in this industry. Strong regulatory support, access to funding and state-of-the art facilities provided at the Food Incubation Hub planned to be located in the Rathnew Campus could further attract promising start-up companies to test and produce their innovative offerings.

6.1.2 Agri-Food and Forestry Strategies and Implications for Skills Development

This section provides an overview of recent national and local strategies in the agri-food and forestry sectors that focuses on the implications that their main objectives and actions have for workforce training and upskilling. An overview of local food development programmes run by or with the support of the Local Enterprise Office is also included.

Food Vision 2030

Food Vision 2030 is the Irish government’s latest ten-year plan for the agri-food industry, which includes primary agriculture, food and drink processing and manufacturing, fisheries, aquaculture and fish processing, forestry and forestry processing and the equine sector. The key vision put forward in this document is for Ireland to become a world leader in Sustainable Food Systems over the next decade. Four high-level missions sum up the strategy goals:

1. A climate smart, environmentally sustainable agri-food sector.

[85] Ibid., pp. 4-6.
[86] O'Connor, B. (2022). *Attitudes towards Plant-based Alternatives – Ireland* [Industry Report]. Mintel.
[87] Magill, N. (2021). *Consumer Attitudes towards Natural and Organic Food – Ireland* [Industry Report]. Mintel.

2. Viable and resilient primary producers with enhanced wellbeing.
3. Food that is safe, nutritious, and appealing, trusted and valued at home and abroad.
4. An innovative, competitive, and resilient agri-food sector, driven by technology and talent.

Skills development is at the heart of Mission 4, which calls for the **development and implementation of a strategy for the agri-food sector on education, skills and talent attraction and retention.** The document acknowledges the challenge experienced by agri-food businesses to attract and retain trained and skilled workers. **Talent is seen by agri-food companies as a critical risk**, especially as they compete with all other sectors of the economy to attract and retain talent across all skill levels. The strategy recognises the potential for certain lower-skilled, lower-paid, and repetitive roles to be automated, but notes that this process will require significant research, development, and investment in technology.

Food Drink Ireland 2030 Strategy

Food Drink Ireland, the IBEC group that represents the food and drinks industry, highlighted the need to **increase funding for enterprise-led skills development** in the ten-year strategy published in 2019. The need to **renew the focus on culinary apprenticeships** was also pointed out due to the affordability issues that the new apprenticeship system raises for companies with the off-the-job costs of apprentices that employers need to cover. For this reason, a review of the funding model was recommended to ensure adequate resources to run apprenticeship programmes. The administrative burden that the scheme places on employers was also seen as prohibitive. To build the long-term sustainability of Generation Apprenticeship programmes for the agri-food sector, the report recommended the provision of greater resources for promotion and marketing for employers and developing an incentive scheme for business to offset the cost of training against corporation tax.

Additional recommendations highlighted the need to direct funding towards an agri-food careers portal; driving research into automation and its application in the food and drink sector through all available mechanisms; and creation of a working group to map how roles in the food and drink sector will change over the next 10-20 years.

Fáilte Ireland Food and Drink Strategy 2018-2023

The enhancement of food tourism is one of the key priorities included in Fáilte Ireland's **Food and Drink Strategy 2018-2023**[88]**.** Moreover, strengthening the perception of Ireland as a nation with an authentic cuisine requires skilled chefs, cooks, and kitchen staff with relevant experience in preparing high quality food. This is creating a demand for culinary professionals who can contribute to distinct food and beverage experiences.

A strong emphasis is also laid on **leveraging food and beverage offerings as a key driver of tourism**. The interlinkage with tourism requires skilled employees capable of providing food and beverage related experiences such as food tours, tastings and culinary events and have experience in hospitality and event management. Experience in hospitality and event management is crucial in the showcasing of Irish culture through food and drinks as well as cultural understanding. Hospitality and service staff will need to be able to convey stories and traditions behind the food and beverages they serve.

[88] Fáilte Ireland (2018). *Food and Drink Strategy 2018-2023*. Available at: FI-Food-Strategy.

Moreover, marketing and promotion are vital in attracting domestic and international tourists. Skills in digital marketing, social media management, and online reservation systems will be essential for promoting food and beverage establishments. Among the challenges in delivering quality food and drink experiences, the strategy highlights cost management, which refers to the higher wages that should be tied to better skillsets.

Wicklow Food and Beverage Strategy 2019-2021

County Wicklow's Food and Beverage Strategy[89] for 2019-2021 put forward the county's food vision, strategic goals, and an action plan implementation for the development of the food economy that included areas such as branding, networking, tourism, linkages between agriculture and the food sector, poverty and sustainability, education and training and community food initiatives.

The **provision of appropriate business supports** was one of the five strategic goals put forward in the county's food strategy. To ensure that the correct **business upskilling supports** are in place to help local food businesses grow and develop, the strategy recommended that a **training needs analysis be conducted across all food stakeholders** (e.g., food producers large and small; foodservice operators; food tourism operators; farmers and growers**) to identify skillset gaps**. The needs analysis should consequently be followed up with training courses and other supports recommended. Possible topics suggested included training chefs in the importance of using local foods; training to help food producers understand the needs of the local foodservice and retail stakeholders; route to market training for food producers.

Food Development Programmes in County Wicklow

The Local Enterprise Office supports a suite of food development programmes for local entrepreneurs who need different levels of support to build and grow their businesses.

Digital School of Food

Run by LEO with Enterprise Ireland and Bord Bia support, the Digital School of Food is the **first step recommended for producers to bring ideas to start-up and grow stages**. This online programme is structured around six broad themes and fourteen courses that are designed to give food entrepreneurs an education in planning a product journey and route to market, through thinking about finance and how to grow sales, right up to expanding the business. Support from experts in the field – such as LEO, Enterprise Ireland, Food Safety Authority, and Bord Bia – are included in each course. Entrepreneurs who complete the Digital School of Food are then primed to move on to take part in a Food Starter programme and subsequently the Food Academy, which gives producers the opportunity to get their product on retail shelves.

Food Starter

The Food Starter is a two-day programme aimed at participants with a base knowledge of what is involved in setting up a food or drink manufacturing business (but not suitable for those who are planning to open a café, restaurant, or food service operation). The workshops included over the two days provide participants with feedback on their product idea from the workshop facilitators, as well as business elements such as finance, funding, distribution, logistics, branding and communication.

Food Academy

LEOs, SuperValu and Bord Bia created the Food Academy in 2013 as a tailored food business development programme for early and mid-stages of developing a food or drink businesses. Over ten half-day workshops that cover six modules, participants receive training in food safety, market research and branding, marketing, finance, sustainability, and business development. Moreover, participants are given the opportunity to present their product to a panel from SuperValu and gain valuable feedback. If successful, they can participate in a trial based in local shops and potentially progress over time to a national listing with SuperValu.

Ireland's Forest Strategy (2023 – 2030)

Ireland's Shared National Vision for the role of forests and trees in Ireland's future is that, by 2050, Ireland's forests will be seen as a key solution to the climate, biodiversity, housing, and health emergencies of the 2020s. To achieve this vision, the overriding objective of the **Forest Strategy to 2030**[90] is to expand the national forest estate on both public and private land in a manner that will deliver lasting benefits for climate change, biodiversity, water quality, wood production, economic development, employment, and quality of life. Nevertheless, to enable forests play a multifunctional role will require a diverse range of forest professionals, including foresters skilled in sustainable forest management practices, ecologists, engineers, data specialists, and forest operatives.

The Strategy acknowledges the **need for adequate capacity in the Education and Training Sector** and a **strong research sector** to ensure forest practice and policy are based on the best available science. **Support for training, education and continued professional career path development** is seen as a strategic enabler to increase the diversity, capacity, and capability of the workforce available to the forestry sector. This includes **support for developing skills needed for the use of wood in construction**, which is seen as an alternative to carbon-intensive products. There is also support for considering an **alternative approach to forest planning**, one that is plan-led and based at a catchment, landscape, local authority, or county level.

Training Needs for Forest Harvesting Operations

The assessment **of Forest Harvest Training Needs**[91] carried out by the Regional Skills Fora in 2022 warned that if the lack of availability of part time training for forest machine operatives persists, it will impact negatively on the capacity of the sector to harvest the maturing commercial forest stock. Furthermore, the report noted, the aging demographic of existing operators implies there has been a shortage of new entrants to the sector in recent years. The report estimated a **future need to train 15 to 20 operators annually for the foreseeable future** and recommended that urgent resources be allocated for the

[90] Department of Agriculture, Food and the Marine (2023). *Ireland's Forest Strategy 2023 – 2030*. Available at: gov - Ireland's Forest Strategy (2023 – 2030) (www.gov.ie).
[91] Regional Skills Fora (2022). *Assessment of Training Needs for Forest Harvesting Operations with Recommendations*. Available at: CPSA - Regional Skills publications.

delivery of the Forest Machine Operator Training Programme.[92] Industry-wide support was also deemed necessary to promote careers in the sector, sourcing candidates, providing training experience to learners, and making training machines available to learners to gain experience.

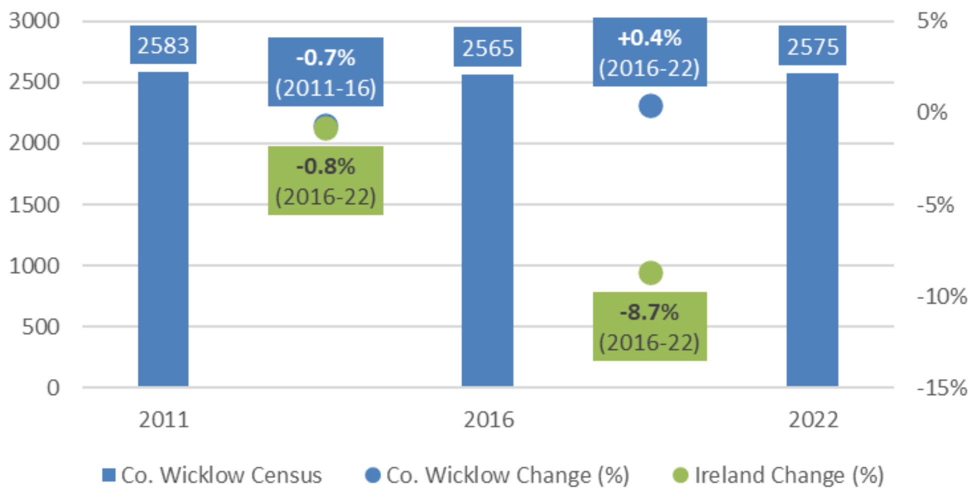
6.1.3 Sectoral Landscape in County Wicklow

As detailed in Chapter 3, **agriculture, forestry, and fishing is Co. Wicklow's largest business sector** and tends to play a stronger role in the western and southern areas of the county (Baltinglass and Arklow MDs). As of 2022, almost one quarter (24.4%) of businesses in Co. Wicklow operated in the agriculture, forestry, and fishing sector (1,499 enterprises in total). The sector includes a wide range of activities, such as primary agriculture as well as food and drinks processing and manufacturing, fisheries, aquaculture and fish processing, and forestry and forestry processing and the equine sector. Notably, however, as these businesses often have a small employer base, agri-food is not among the county's most labour intensive sectors.

Workforce Profile

As of 2022, 2,575 persons were active in occupations considered under the agri-food sector, representing 3.4% of the county's labour force. This figure is markedly lower than for Ireland overall, where 4.4% of the labour force is active in agri-food occupations. Figure 6.1 compares agri-food employment in County Wicklow and nationally over the last three census exercises. The relative stability of employment in Co. Wicklow in the recent 2016-22 period contrasts with the national trend where employment in the sector has significantly decreased and remains below pre-pandemic levels.

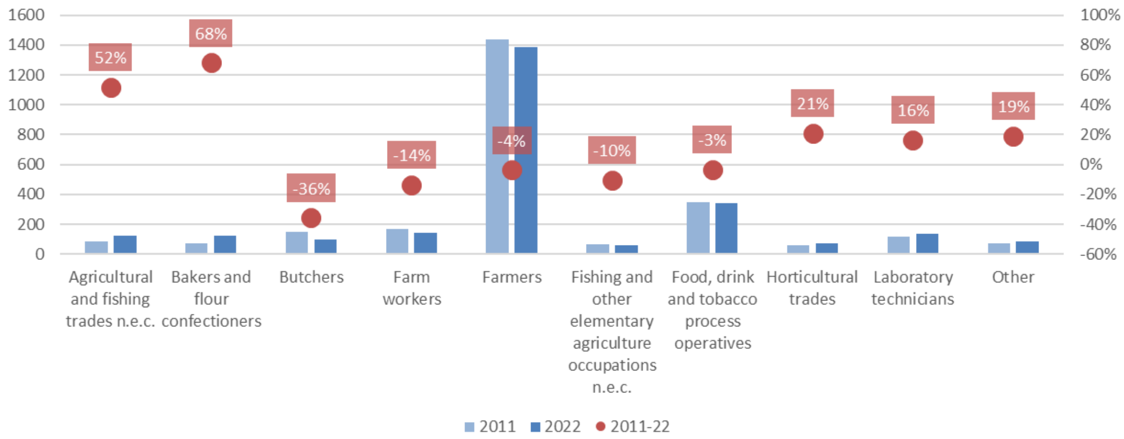
Figure 6.1: Agri-Food Employment, 2011-2022



92 This course and training facilities have been in place at Teagasc Ballyhaise, Co. Cavan since 2017 but is not available for part time training.

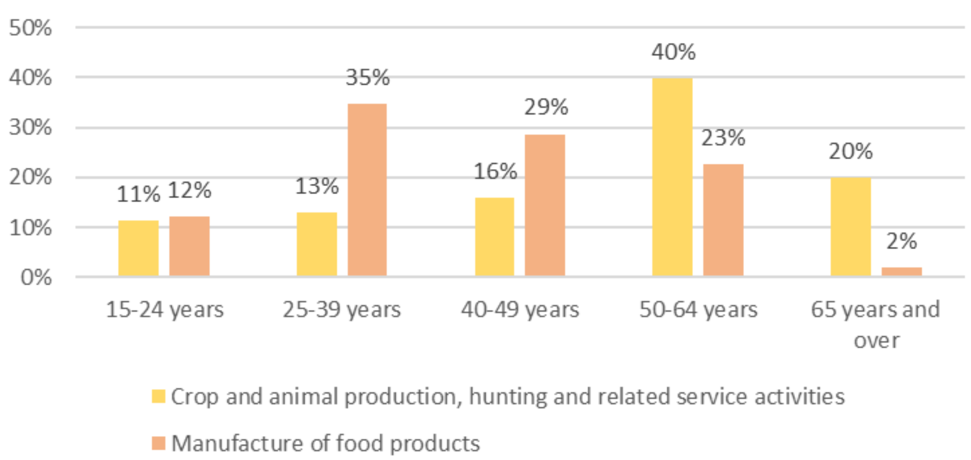
Total employment in the sector can be further broken down into the 12 occupations[93] included in Figure 6.2. Between 2011 and 2022, four occupations recorded employment growth, with the highest absolute and relative growth registered among agricultural and fishing trades and bakers and flour confectioners, and the highest absolute and relative decreases among butchers and farmers. The high numbers in full-time employment and the low growth rates point to an established sector of significance that is undergoing some challenges, particularly in traditional occupations.

Figure 6.2: Agri-Food Employment by Occupations, 2011-2022



While demographic data on employees in the sector is incomplete, a clear distinction in age profiles can be made between 'manufacture of food products' where 64% of employed persons are between 25 and 49 years of age, and 'crop and animal production, hunting and related service activities' where 60% of employed persons are 50 years and above. The high average age in the agri-food subsector will require action on succession for business ownership and increased hiring activities in the coming years.

Figure 6.3 Age breakdown of employees in agri-food (2022, Ireland)

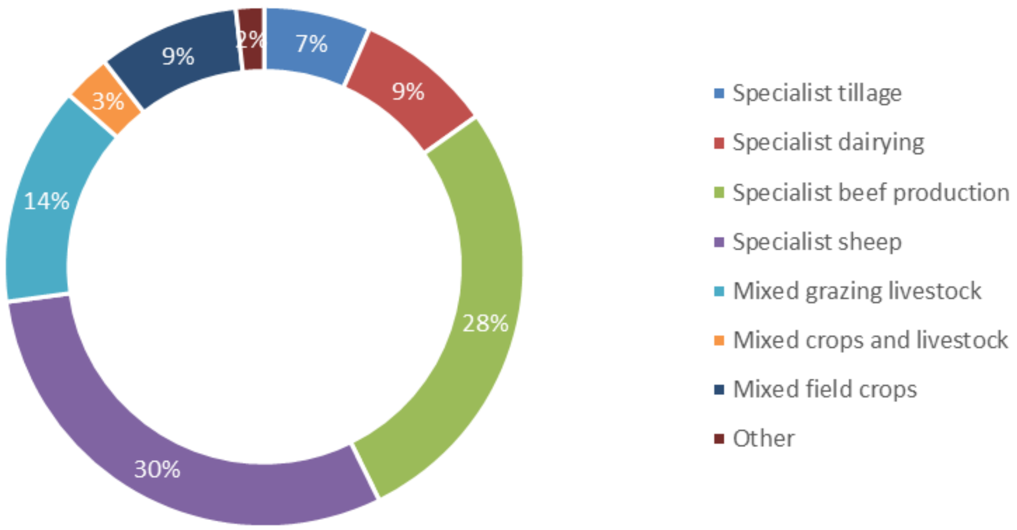


93 These figures include Co. Wicklow residents employed in the 12 occupations in or outside of Co. Wicklow but exclude residents outside of Co. Wicklow employed in Co. Wicklow.

Crop Production and Livestock Farming

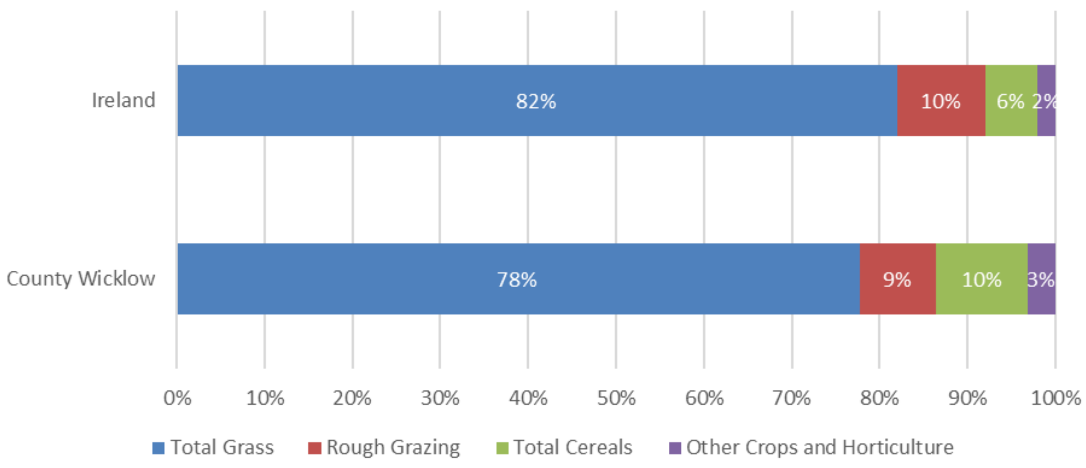
In 2020, there were 2,456 farms in County Wicklow, an increase of 2.6% since 2010. Over the same period, the number of farms in Ireland overall decreased by 3.4%. This reflects the less significant role the sub-sector plays in the county. The average farm size in Co. Wicklow is slightly above the national average, with a lower percentage of farms 10 to under 40ha and a higher percentage of farms 50ha or more, in line with general characteristics for the Mid East and Southeast regions. As shown in Figure 6.2, most farms were classified as specialist sheep (30%) and specialist beef production (28%).

Figure 6.4: Farms in County Wicklow (2020)



The total area farmed was 1,032 m^2 (51% of the area of Co. Wicklow), a lower percentage than for Ireland overall due to geographical constraints. The share of total grassland (hay, sileage, pasture) is lower than for the State overall, while the production of cereals as well as horticulture are more significant in Co. Wicklow (see Figure 6.5).

Figure 6.5 Distribution of Land Utilisation in County Wicklow (2020)



Food Production and Tourism

While crop production and livestock farming are less pronounced in Co. Wicklow compared to the country overall, the sector generally offers well-established employment opportunities in micro and SME- and large-scale enterprises (e.g., artisan and craft-food and beverage producers) and large-scale enterprises (e.g., subsidiaries of national and international companies). The sector is characterised by stability in business activities.

Co. Wicklow boasts few large-scale production facilities (Shillelagh and Arklow meat factories being the largest). More recently, several small producers in the food (e.g., dairy, meat, grains, herbs, seafood) and beverage industry (e.g., beer, whiskey) have been established and gained market access across Ireland. With a strong focus on organic and healthy lifestyle products, many recently established brands are targeting sustainability-conscious customers. The food and beverage industry in Wicklow is well-connected (e.g., through 'Wicklow Naturally') and supported by the Local Enterprise Office. Wicklow food stakeholders have undertaken many projects in recent years, such as 'Taste of Wicklow', 'Zero km', and 'Wild & Slow Festival', and organised regular activities and participated in the high number of local (farmer's) markets.

The 'Wicklow Food Story'[94] situates food and drinks production together within tourism and hospitality at the core of the Wicklow brand identity. Similarly, Ireland's Ancient East tourism promotional strategy incorporates story-telling and experiential activities. Thus, Wicklow's food landscape and food stakeholders have the potential to become a major 'stand out' on this tourism route as much of the food landscape and food heritage lends itself to experiential activities and storytelling.

Forestry

With 36,262 ha of forest, which amount to 17.9% of its total land mass, Wicklow is one of Ireland's most densely forested counties. 5% of the national forested area is in Wicklow, which makes up approximately twice the percentage of the county's share of Ireland's land area.[95] In terms of employment, 100 persons were active as 'forestry workers' as of 2022, representing 0.1% of the county's labour force. This figure is markedly higher than for Ireland overall. A total of 8.6% of all forestry workers in Ireland were employed in Wicklow, almost three times the county's share of the national labour force (3.0%). The county's above-average employment numbers are likely related to the high share of forested land and Coillte's headquarters in Newtownmountkennedy. As the data in Figure 6.6 shows, employment in the sector remained relatively stable while Co. Wicklow's forestry employment growth rates were higher than national growth rates.

Employment statistics shown in Figure 6.6 use occupations from the 2022 CSO Census results and pertain to narrowly defined forestry occupations. Coillte statistics provided in Table 6.1 show a wider picture of employment in forestry and related activities. Thus, according to Coillte, employment levels in Co. Wicklow amounted to 570 FTEs in 2022 and are projected to increase to 644 FTEs over the next decade. The largest growth areas include operations, processing, and nurseries to support increase in national forestry felling and planting programmes, but also staffing at the Avondale Forest Park.

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[94] County Wicklow (2019): *Food & Beverage Strategy for County Wicklow 2019-2021*, p. 28.
[95] [Ireland's Forests - Annual Statistics 2019 (teagasc.ie).]

Figure 6.6: Forestry Employment, 2011-2022

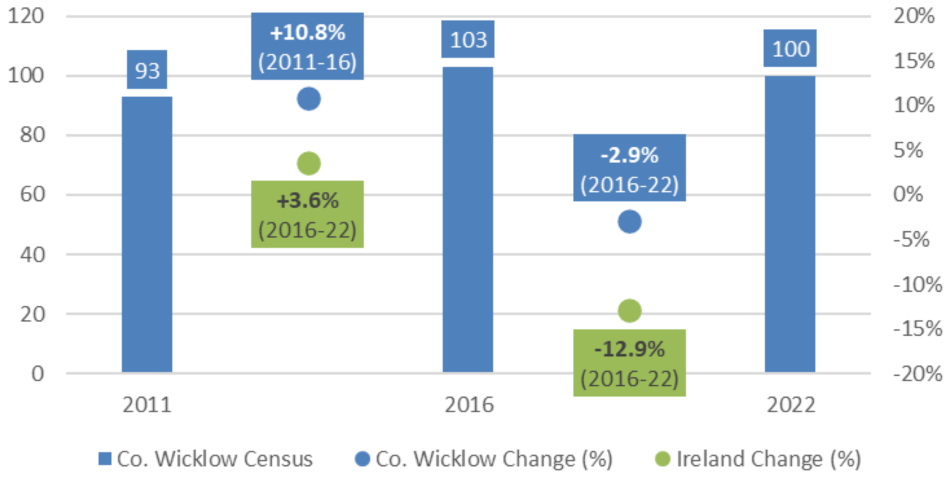


Table 6.1: Forestry Employment and Skillset Projected Needs in Co Wicklow

Area	2022 Employment Levels[96]	10 Year Requirement	2032 Expected Employment
Coillte HQ	120	30	130
Operations[1]	280	55	327
Processing[1]	75	17	80
Nurseries[1]	44	13	50
Avondale – Beyond the Trees	13	4	15
Restaurant & House Avondale	38	10	42
Total	570	129	644

Source: Coillte calculations as part of the "National Workforce Capacity Project".

[1] Attrition (retirements) levels are expected to run at 9% but are expected to be higher in Operations, Processing and Nurseries due to age profile of those working these areas.

Workforce capacity is the single biggest issue facing the forestry sector and, as Coillte warns, Ireland's Forestry Strategy and the national climate change targets will be under threat if they are not addressed. Furthermore, biodiversity renewable energy development is one of the instances included where deforestation is permitted in Ireland. Several schemes outlined in the strategy (such as silvopastoral systems and forest gardening) will produce renewable energy. The National Workforce Capacity Project undertaken by Coillte indicates that 1,800 jobs nationally need to be created to ensure Ireland's Forestry Strategy 2030 is executed in full.

Coillte stakeholders interviewed as part of this study pointed to the lack of awareness of forestry and poor profile of the sector in Ireland as some of the key reasons that make it

[96] Factual except Operations which represents 5% of the numbers currently working in forestry (to coincide with Forested Area). The figures represent direct employment only.

difficult to attract new staff. The housing crisis and cost of housing pose significant challenges for contractors' ability to attract staff into the sector from abroad. The older age profile of contractors and their staff makes succession planning more difficult, which will likely contribute to workforce capacity issues in the future. The felling licence crisis has reduced confidence of existing contractors and fragmentation in the sector is hampering progress within the sector.

6.2 Stakeholder Views

Themes	
Biggest challenges	The major issue in the agri-food sector is the **lack of industrial space and storage facilities**. Businesses cannot find facilities to store their goods and equipment. This is put down to the cost of construction in the current economy as building such facilities is not feasible for the construction industry. Obtaining planning permissions is also pinpointed as a major barrier for building these facilities. The unavailability of industrial spaces, particularly in the 5,000 to 10,000-foot size, coupled with the **shortage of incubation centres on the East coast** makes it difficult for small food and drinks local businesses to grow to the next level. Participants highlighted the **need for funding** as important but felt that the correct facilities are the most important matter - *'I think businesses need financial support, but the right facilities are crucial.'* Furthermore, in relation to **funding**, numerous participants highlighted the need to review the parameters of available supports because of the **difficulty in obtaining small size loans** particularly when it comes to paperwork which is too time consuming and difficult for small enterprises to tackle. The **lack of accommodation** and difficulty of obtaining planning permissions is an issue for farms and other businesses who need additional units that could house current or potential employees. Barriers to building makes it difficult to attract workers to locations inaccessible by public transport, particularly if new employees are moving from abroad. The work carried out by **Wicklow Naturally** was highly praised by all stakeholders – including chambers of commerce and other business networks –, who expressed a strong desire to see **extra funding granted to this network** to maintain connections in the food and business network within the county. Worry at the loss of Wicklow Naturally was expressed by participants – *'it would be extremely disappointing to see that happen, the support and networking are incredibly valuable.'*
Supports for the sector	For the sector to grow, there is a call for a simplification of the steps required to access funding and the **provision of resources/guides for new entrants.** Access to funding is crucial as accessing finance from banks is difficult. One of the key messages from the sector is that once funding can be accessed, business owners who are experts in their field have the know-how to create a successful and thriving business. Supports to **attract students on a three-to-six-month placement programme to farms** and other local businesses has been proposed as a way of filling the skills shortage and promote the industry as a career to young people. Notably, though, placement programs as well as independent training

Themes	
	programmes that are in contact with schools and other education providers require funding that should be made available to individual training providers.
Skills shortages	Skills shortages exist across a range of positions within the industry, especially **chefs, kitchen porters, and front of house staff**. While there is also a **gap in horticultural skills**, **current courses on offer struggle to find enough students to fill places.** One business had tried forging links with Tallaght Community Schools and other community schools by bringing students on site and offering instruction as well as on-the-job work experience. However, they had difficulty retaining them as staff, as students do not regard the industry as a long-term career. Attracting workers to small local businesses is made more difficult by **competition with large employers in Dublin**, particularly in the digital marketing arena, which has a severe skill shortage in the agri-food sector. Bigger salaries and a potential better work-life balance has also drawn chefs to Dublin instead of Co. Wicklow. **Forestry** stakeholders pointed to a lack of awareness of forestry careers in Ireland. The number of people choosing forestry as a career has decreased steadily over the last decade to single figures, which is a worrying trend. Semi- and unskilled labour roles used to be filled using EU labour, many of whom returned to their home countries in the wake of the COVID-19 pandemic. The outdoor working conditions can be tough, and the sector competes with construction for semi or unskilled labour. Future skillset will need to be highly trained on the latest technology to be in a position to support the sector's changing needs.
Skills development needs	Participants highlighted the **lack of short-term training courses available for hospitality/customer interaction**. There is a perception that colleges and new graduates focus more on digital and technological skills at the expense of people skills, which are crucial to agri-food business offerings. Business representatives noted that **most of their training is conducted in-house** as the work is very specific to the needs and requirements of individual businesses. However, **access to funding to support the design and delivery of in-house training** was deemed essential for the companies' ability to upskill their staff. As the existing courses offered by KWETB and other FET providers are not always tailored to existing industry needs – such as product development training – stakeholders noted the need to be able to access funding for their own training solutions.
Strategic / collaborative actions	**A central network allowing for better sharing of knowledge, funding, and training resources** for aspiring entrepreneurs and existing businesses was seen as a major benefit to the industry. This network could take the form of a business website or portal. The opportunity to **improve and promote farmers markets** in the county was highlighted as a chance for collaborative actions for businesses within the agri-food sector and from further afield in the economy including the arts industry. The current limitations on turnover to operate within farmers markets was noted as an impediment to local food and beverages companies. The model

Themes	
	of the Greystones Farmers Market, which is ran by local Tidy Towns teams, was given as an example worth replicating more broadly in the county.
Awareness raising actions	Consultees highlighted the need for **creativity in training and education** to attract more people into the food production and services sector and showcase the benefits of a career that is defined by hard work and unsocial hours. The region would benefit from the introduction of **centres of excellence** that should recognise the limited pool of talent and show appreciation for the heritage and artisan nature of products. Partnering with local institutions in Co. Wicklow and potentially other regions as well is important for being able to praise local culture and food.

6.3 Projected Skills Demand

Potential 2030 employment figures in the agri-food sector consider labour force trends, characteristics of the agri-food workforce, and sectoral trends (both national and local). Three diverging scenarios are derived based on the potential variability of these parameters. However, due to limitations in the current sectoral employment landscape, the volatility in recent employment trends, and the methodological difficulty to project forward from low numbers, the scenarios presented below should be interpreted with the caveat related to the high degree of uncertainty they are characterised by.

Table 6.2 shows the number of people employed in the Wicklow agri-food sector in 2022[97] and projected employment figures for 2030 under three scenarios of constant, high, and low growth employment expectations for this sector. The same scenarios as well as past employment levels (2011, 2016, 2022) in Co. Wicklow are displayed in Figure 6.7. Annual estimated growth for 2011-16 and 2016-22 and projected annual growth estimates for the three scenarios are displayed in Figure 6.8.

Table 6.2: Scenarios for Projected Skills Demand in Agri-Food Employment

Employment 2022 (Census 2022) || % Labour Market	Scenario	Forecasted Employment 2030	Forecasted Growth 2022-2030
	High Growth	3,863 4.6%	+50.0%
2,575 3.4%	**Baseline**	2,901 3.3%	+12.6%
	Low Growth	2,191 2.6%	-14.9%

[97] Based on CSO Census 2022 data on Detailed Industrial Groups.

Figure 6.7: Agri-Food – Past and Projected Employment Trends, 2011-2030

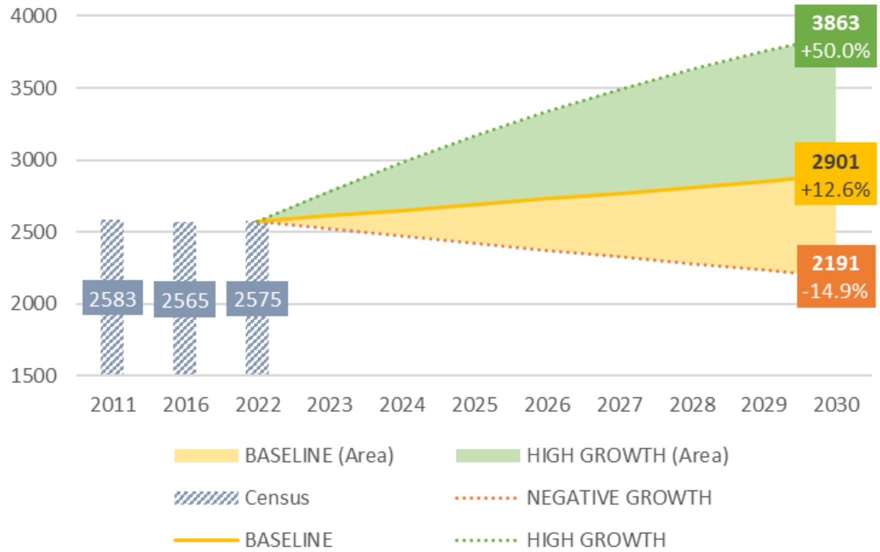
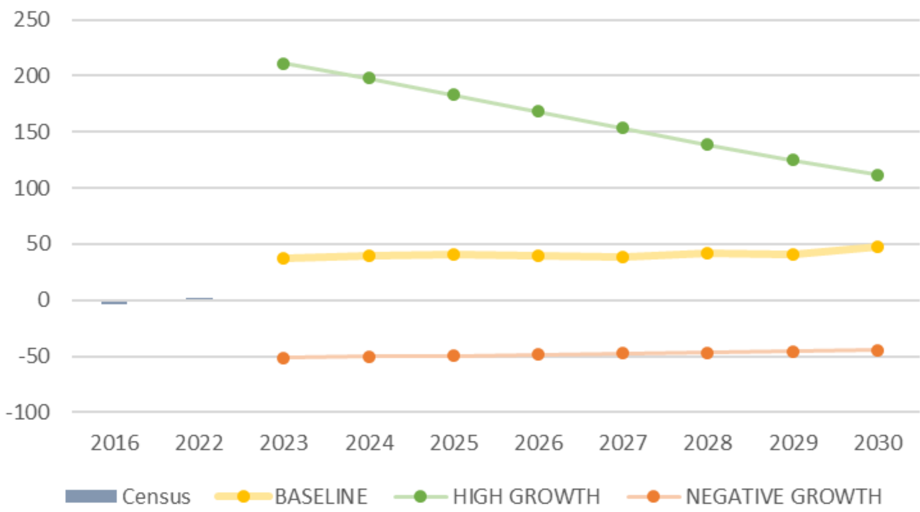


Figure 6.8: Agri-Food – Past & Projected Absolute Employment Growth, 2011-2030



Baseline Scenario

Under the **baseline scenario**, agri-food employment is expected to remain at the 2022 level of 3.4% of the county's labour force. Underlying assumptions for this scenario include:

- The continued growth of the sector overall due to strong demand.
- Further diversification of the sector due to continued cooperation through existing networks for micro and small-and-medium-sized enterprises.
- A decreasing level of competitiveness of Co. Wicklow compared to other regions due to high cost of living and limited access to housing and transport.

The projected growth of the labour force implies an increase in the number of employees in agri-food occupations by 12.6% (amounting to 326 persons) reaching 2,792 persons in 2030. The yearly workforce change over the 2023-2030 period is shown in Table 6.3.

Table 6.3: Baseline scenario – Yearly change in the number of agri-food employees

2023	2024	2025	2026	2027	2028	2029	2030	Total
+38	+39	+41	+40	+38	+42	+41	+47	**+326**

High Growth Scenario

The **high growth scenario** assumes that employment in agri-food will increase significantly by 50% (1,288 persons) and will reach 4.6% of the county's labour force in 2030[98]. The yearly workforce change over the 2023-2030 period is shown in Table 6.4. Underlying assumptions for this scenario include:

- The continued growth of the sector overall due to strong demand.
- Further growth and diversification of the sector due to continued FDI and increased cooperation through existing and new networks for micro and small-and-medium-sized enterprises, as well as improved access to incentives to start and grow businesses.
- Improvements in infrastructure around housing and transport ensure continued competitiveness of County Wicklow compared to other counties and countries.

Table 6.4: High Growth Scenario – Yearly change in the number of agri-food employees

2023	2024	2025	2026	2027	2028	2029	2030	Total
+211	+198	+183	+168	+153	+139	+125	+112	**+1,288**

Low Growth Scenario

The **low growth scenario** assumes that the number of people employed in agri-food will decrease by 14.9% (amounting to a decline of 384 employees), falling to 2.6% of the county's labour force by 2030.[99] The yearly workforce change over the 2023-2030 period is shown in Table 6.5. Underlying assumptions for this scenario include:

- Disrupted growth due to a general economic downturn, or insecurity because of a sectoral crisis which could lead to existing enterprises exiting the market and preventing new enterprises being established.

[98] For the High Growth scenario, recent growth figures from the Business Demography statistics are used and an annual degressive factor of 0.865 (i.e., expecting the sector to still grow significantly, but at a lower rate – 86.5% - than that achieved in 2022) is applied to project the 2023 employment numbers from the Detailed Occupational Groups statistics forward.

[99] For the Low Growth scenario, a degressive growth factor (0.98) is applied to the 2022 sector's share in the labour force (i.e., expecting the sector to decrease its share in the labour force by 2% annually) to project the 2022 employment numbers from the Detailed Occupational Groups forward.

- Reversal in the sectoral diversification due to lower investment, disrupted cooperation networks and difficult access for entrepreneurs to start and grow businesses.
- Failure to attract enough young people into the crop and animal production subsector to balance the number of retiring persons.
- A decreasing level of competitiveness of Co. Wicklow compared to other counties due to high cost of living and limited access to housing and transport.

Table 6.5: Low growth scenario – Yearly change in the number of agri-food employees

2023	2024	2025	2026	2027	2028	2029	2030	Total
-52	-50	-49	-48	-48	-47	-46	-45	**-384**

6.4 Skills Supply

The critical skills gaps identified as a result of engagement with stakeholders in food and drinks production in County Wicklow included the following roles:

- **Chefs**
- **Horticulturists**
- **Seasonal beekeepers**
- **Food technologists**
- **Management** (e.g., financial, new product development, procurement, Six Sigma)
- **Sales & Marketing** (including digital marketing)
- **Hygiene, Health & Safety** (e.g., food safety compliance, food hygienists, health & sustainability)
- **ESG & Environmental Conservation**
- **Customer service** (e.g., communication skills)
- **Drivers** (forklift, loader, heavy goods)
- **Mill operatives**

Forestry consultees also highlighted the following skills shortages:

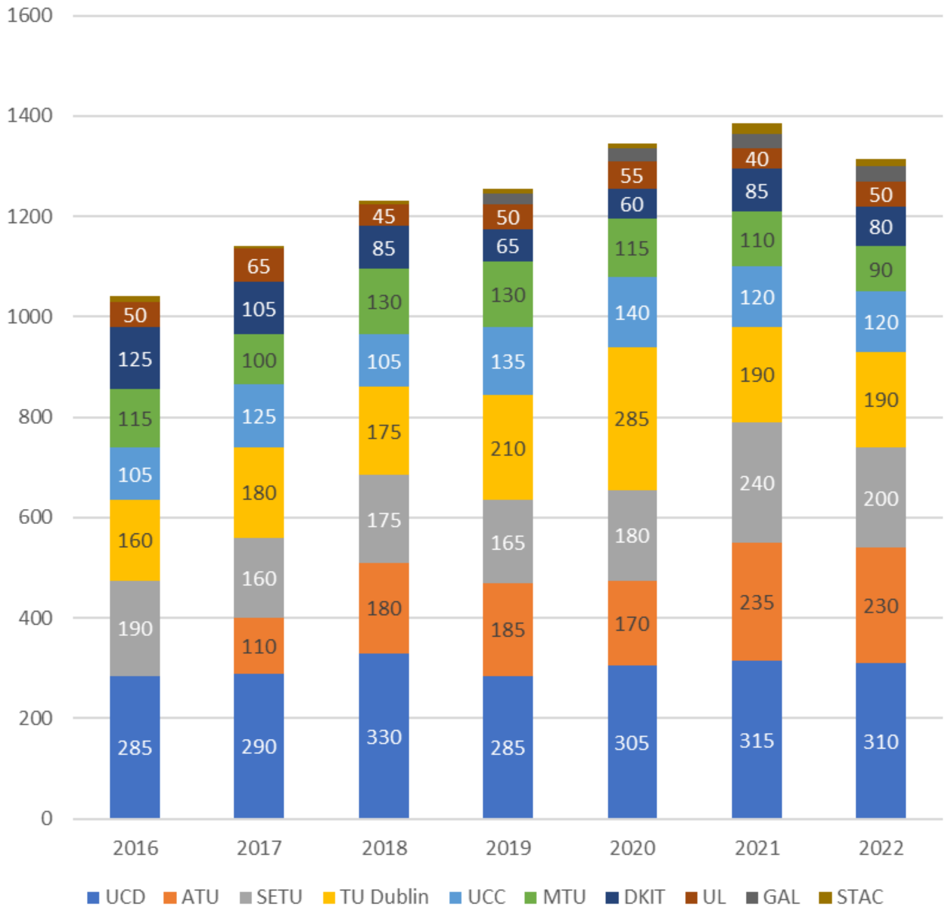
- **Forestry Contractors** – Harvesting, haulage, engineering, ecologists
- **Foresters & Harvesting** – Forwarder and harvester operators (highly technical)
- **Establishment** – Planting and maintenance crews (semiskilled work)
- **Haulage** – Lorry drivers (Skilled)
- **Nursery staff** – Tree breeding specialists (semiskilled operators)
- **Processing** – Highly skilled roles including electrical engineering, technology experts, and general operatives with a high degree of technology skills
- **Support areas** – Administration, finance, legal, ecologists, procurement, HR
- **Remote Sensing Specialists**
- **Hydrology Specialists**
- **Forestry Planting and Maintenance Operators**

This section summarises the data on HEIs and FET provision of third-level courses and education and training schemes relevant for these occupations. Particular emphasis is laid on the educational attainment of students with Wicklow as their county of origin and the local provision of education and training.

6.4.1 Higher Education Institutions

From 2016 to 2022, the number of third-level graduates in agri-food disciplines[100] across Ireland has increased from 1,040 to 1,315 (+26.4%), with a noticeable fall from 2021 to 2022 below the 2020 level. Significant shares of graduates are typically coming from University College Dublin (UCD), Atlantic Technological University (ATU), TU Dublin, SETU, and University College Cork (UCC), with smaller numbers receiving their degrees from Dundalk Institute of Technology (DkIT), University of Limerick (UL), University of Galway (GAL), MTU and St. Angela's College Sligo (STAC). Over this period, the share of graduates from HEIs based in the wider catchment of Co. Wicklow (Dublin, Carlow, Waterford) has slightly fallen from 61% (635 graduates) to 53% (700 graduates).

Figure 6.9 HEIs Graduates – Agri-Food Programmes



Source: Higher Education Authority data.

[100] HEIs data related to programmes categorised under the following ISCED disciplines are considered relevant: (0721) Food processing; (0811) Crop and livestock production; (0812) Horticulture; (0819) Agriculture not further defined or elsewhere classified; (0831) Fisheries are particularly relevant.

Although employment in the food and drinks sector and even the third level educated cohort within this group does not exclusively rely on graduates from HEIs, the decline in the number of students reflected in Figure 6.9 may set off an alarm bell regarding the size of the future available workforce in this field. A similar signal can be picked up from Table 6.6, which shows the number of students originating from Co. Wicklow[101] enrolled in food and drinks degrees at SETU between 2018 and 2023. In general, less than ten Co. Wicklow residents registered across these programs every year since 2018.

Table 6.6: SETU students with Wicklow as their county of origin

	2022-23	2021-22	2020-21	2019-20	2018-19
Food & Drinks Degrees[102]	5	5	9	6	3

Source: Data provided by SETU.

Forestry Third-Level Degrees

There are only two Level 8 forestry degree courses offered in Dublin and Waterford in the proximity of Wicklow (see Table 6.7). Additionally, Coillte's annual National Graduate Recruitment programme for foresters has a national intake of around ten students.

Table 6.7: Forestry Third Level Courses

Level	Course	Location	HEI
8	BSc (Hons) Forestry	Waterford	SETU Waterford
8	BAgrSc Forestry	Dublin	UCD
8	BSc (Hons) Sustainable Timber Technology[103]	Dublin	TUD

6.4.2 Further Education and Training

With many roles in horticulture and food and drinks sectors not targeted at third-level graduates, a look at training opportunities offered by FET providers in the relevant fields of study is needed. This section presents data on further education and training provided by the Kildare/Wicklow ETB at its various FET locations in Bray and Blessington.

KWETB – Horticulture Courses

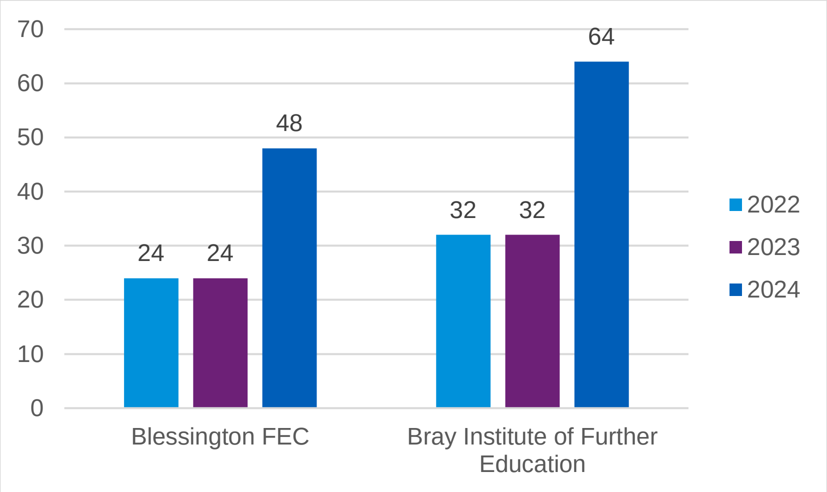
KWETB offers several full time and part time courses in horticulture (NFQ levels 4-5), applied ecology and biodiversity studies at the Bray Institute of Further Education and Blessington FEC. Course duration ranges between 14 and 35 weeks. Figure 6.10 shows the distribution of course places across FET centres based on their delivery date start in

[101] Note that 'students originating from Co. Wicklow' refers to students who have their residence in Co. Wicklow but does not include students who (temporarily) changed their residence to the location of their study. Students are likely to change their residence once commuting to the location of study is not a practical option anymore due to the distance from the original residence.
[102] Degrees included: Bachelor of Arts (Honours) in Culinary Arts; Bachelor of Science (Honours) in Brewing and Distilling; Bachelor of Science (Honours) in Food Science and Innovation.
[103] The TU Dublin School of Architecture, Building and Environment TU838 BSc (Hons) Sustainable Timber Technology programme includes structured industry placement in the second semester of Year 3. The first Year 3 students will be placed in 2024.

2022, 2023, or 2024. The list of courses with details regarding their title, programme, award level, duration, capacity, and number of filled places is provided in Appendix 11.7.

The overall **course capacity in 2022 and 2023 was 56 places each year**, with **112 places planned for 2024** (as of November 2023). Notably, across the FET centres in Bray and Blessington, **only 19 and 35 places were filled in 2022 and 2023 respectively.** The most popular courses (although none filled at capacity) were Horticulture (Level 4) delivered at the Blessington FEC and the Applied Ecology course offered at the BIFE in 2023. Conversely, Garden Design – which was on offer both at BIFE and Blessington FEC in 2022 and 2023 – did not seem to attract any candidates.

Figure 6.10: KWETB Places on Horticulture Courses, 2022-2024



Work-Based Learning – Agriculture and Horticulture

Traineeships

Four culinary, bakery, and chef development traineeships were offered at the Marine House in 2022 with a course capacity of between 8 and 14 places. Although these courses, which amounted to 42 places between them, were running at close to capacity in 2022, they were not made available again in 2023.

Apprenticeships

As the primary provider of accredited further education and training for the agricultural sector, Teagasc has developed several apprenticeships in horticulture, farming and equine since 2018. Three new apprenticeships were launched in 2024:

- Horticulture Apprenticeship, a two-year programme (Level 6) targeted for anyone who wishes to pursue a career in the horticultural sector or existing personnel employed in a horticultural facility. The programme is available through the Teagasc College of Amenity Horticulture in the Botanic Gardens in Dublin.
- Sportsturf Management Apprenticeship, a two-year programme (Level 6), targeted at anyone who wishes to pursue a career in the sports turf sector or existing personnel employed in a sports turf facility.

- Farm Manager Apprenticeship, a two-year programme (Level 7 degree) that creates a pathway to a managerial career in the agricultural sector will initially be available through the Teagasc Kildalton College in Kilkenny.
- Farm Technician Apprenticeship, a two-year programme (Level 6) that trains people to operate successfully within farming systems, gain skills in daily operations, and compliance with industry standards and regulatory measures. This programme will be available in the Clonakilty College in Cork and the Ballyhaise College in Cavan.
- Additionally, Teagasc plan to develop and launch the **Assistant Stud Manager Apprenticeship** (Ordinary Level 7 Bachelor Degree) programme in 2024.

Table 6.8 presents the number of apprentice registrations for arboriculture and agriculture fields over the 2020-2023 period. KWETB and national-level figures are provided for comparison. However, while a figure for projected registrations in 2024 is provided at national level for 2024, the KWETB figure refers to the number of live registrations as of mid-February 2024.

The KWETB figures provided in Table 6.8 and Table 6.9 should be interpreted with the caveat that the data represents the employer location within the ETB region, not the training provided by the ETB. Put differently, the apprentice and employer are registered at their local ETB based on the employer's address/location, while the training element can be provided at an alternative location. For example, GRETB is the coordinating provider for the arboriculture apprenticeship and Teagasc is the coordinating provider for the Farm Manager, Farm Technician, Horticulture and Sportsturf Management Apprenticeships. Therefore, all apprentices registered with the KWETB are trained at the locations provided by GRETB and Teagasc. However, the on-the-job element of the apprenticeship takes place at their employer's location in Wicklow or Kildare.

Notably, KWETB currently registered apprentices account for half for the registrations projected for 2024 at national level. Although the Farm Manager, Farm Technician and Horticulture Apprenticeships were introduced in 2023, registrations are projected to increase rapidly at national level. As of February 2024, however, only one person was registered with KWETB for each of the farm manager and farm technician apprenticeships and nine people for the horticulture apprenticeship.

Table 6.8: Number of arboriculture/agriculture apprentice registrations by year and trade

APPRENTICESHIP	2020		2021		2022		2023		2024	
	KWETB	IRE	KWETB	IRE	KWETB	IRE	KWETB	IRE	KWETB Live 02/24	IRE Forecast
Arboriculture	0	<5	<5	31	0	13	<5	12	8	16
Farm Manager					0	0	<5	11	<5	40
Farm Technician					0	0	0	14	<5	80
Farriery	0	0	0	6	0	8	0	<5	0	6
Horticulture					0	0	5	16	9	120
Sportsturf Management					0	0	<5	27	<5	20
Total	**0**	**3**	**3**	**37**	**0**	**21**	**12**	**83**	**22**	**282**

Source: KWETB data provided by the National Apprenticeship Office (NAO). National figures collated from NAO's 2023 annual report[104].

[104] National Apprenticeship Office (2024). *Progress Report 2023 and Plans 2024*. Available at: Annual Report 2023 (apprenticeship.ie).

Registrations statistics for apprenticeships relevant for food production and manufacturing are provided in Table 6.9. In addition to the butcher programme, apprenticeships for laboratory analysts and technicians are also included due to their centrality for disciplines such as food science, process development, manufacturing, and food safety, which are expected to play a key role in providing the technical skills needed for the alternative food industry.

KWETB does not deliver any apprenticeship training for the trades included in Table 6.9 in their role as an ETB training provider. Mayo, Sligo, and Leitrim ETB is the coordinator for the Butcher Apprenticeship and TU Dublin coordinates the Laboratory Analyst and Technician Apprenticeships. The popularity of the laboratory analyst programme may also indicate the opportunities this training offers for careers in biopharma, chemical manufacturing, and medical devices and diagnostics, in addition to food and drinks.

Table 6.9: Number of hospitality and food apprentice registrations by year and trade

APPRENTICESHIP	2020		2021		2022		2023		2024	
	KWETB	IRE	KWETB	IRE	KWETB	IRE	KWETB	IRE	KWETB Live 02/24	IRE Forecast
Butcher	0	10	<5	51	0	27	<5	27	5	60
Laboratory Analyst	<5	18	<5	18	0	14	<5	42	12	0
Laboratory Technician	<5	0	<5	0	0	0	<5	0	<5	60
Total	5	28	9	69	0	41	8	69	20	120

Source: KWETB data provided by the National Apprenticeship Office (NAO). National figures collated from NAO's 2023 annual report.

Microcredentials – Agriculture and Food

The UCD School of Agriculture and Food Science has introduced a new range of Level 9, 12-week long (online delivery) micro-credentials in the agriculture and food that are planned to start between January 2024 and January 2025:

- Principles of Sensory Science (start date – January 2024)
- Equine Parasites Information and Control (start date – January 2024)
- Communication and Agri-Innovation (start date – May 2024)
- Science and Standards of Food Safety (start date – May 2024)
- Concepts of Nutrition and Healthy Eating (start date – May 2024)
- Nutrition and the Consumer Diet (start date – May 2024)
- Creativity and Innovation for Sustainable Food (start date – May 2024)
- Communication and Agri-Innovation (start date – May 2024)
- Food Risk Analysis (start date – September 2024)
- Green Care: Policy and Practice (start date – September 2024)
- Livestock Infection, Immunity and One Health (start date – September 2024)
- Sustainable Livestock Systems (start date – September 2024)
- Environmental Food Processing (start date – January 2025)
- Food Regulation (start date – January 2025)
- Advanced Animal Nutrition (start date – January 2025)
- Animal Foods (start date – January 2025)
- Global Food Systems (start date – January 2025)

Forestry FET Courses

Teagasc's Ballyhaise College in Cavan has been the national centre for vocational forestry education since 1988 and continues to deliver two full time courses in forestry: a **Level 5 Certificate in Forestry** (one-year full time), with progression to the Level 6 **Advanced Certificate in Forestry** (one-year full time). The two programmes include training modules for forest machine operators, forwarders, and harvesters, and include access to a training simulator. There are approximately 25-30 students enrolling for these programmes on an annual basis and around 10% of these full-time students subsequently choose employment as forest machine operators annually. The remainder progress to a variety of other roles within the sector.[105]

In addition to the **arboriculture apprenticeship** delivered by the Galway/Roscommon ETB, Coillte's recent collaboration with the Cavan/Monaghan ETB resulted in the development of a **new Level 5 Forwarder Operator course** that will be delivered at the Teagasc Ballyhaise Agricultural College (see Table 6.10 for the full list of courses). The new course is supported by **Skills to Advance**, which provides upskilling and reskilling opportunities to employees in jobs.

Table 6.10: Forestry FET Courses

Level	Course	Location	FET Centre
6	Arboriculture Apprenticeship Course (2Y)	Galway	Galway and Roscommon ETB
5	Certificate in Forestry (1Y FT)	Ballyhaise	Cavan and Monaghan ETB
6	Advanced Certificate in Forestry (1Y FT)	Ballyhaise	Cavan and Monaghan ETB
5	Forwarder Operator (PT)	Ballyhaise	Cavan and Monaghan ETB
6	Commercial Driving Apprenticeship (2Y)	Sligo	IT Sligo / ATU

6.5 Matching Skills Demand and Supply in Agri-Food

Following a concise summary of current levels of skills supply across both higher and further education and training education for the agri-food and forestry sectors in Co. Wicklow, this section estimates the future provision levels that will be required to meet the skills needs brought about by employment growth forecasted up to 2030. Several caveats must be made in relation to skills supply projections.

Notably, severe data limitations surround the sectoral and geographic employment of third-level graduates in disciplines related to agriculture and food and drinks production. As a result, the calculations underlying the projected higher and further education demand and supply for Co. Wicklow rely on assumptions that increase the uncertainty of the projections generally. Nevertheless, the scenarios presented help build awareness of the level of education provision required to meet the projected employment for this key sector of interest for Co. Wicklow.

The chapter concludes with a high-level overview of proposed approaches that local stakeholders, including employers and education and training providers, can take to match skills provision with labour market demand.

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[105] Regional Skills Fora (2022). *Assessment of Training Needs for Harvesting Operations*, p. 8.

Summary – Higher Education and FET Skills Supply

Table 6.11 summarises the HEIs graduate pipeline for agri-food related disciplines in 2022 and FET course participants in 2023. Across Ireland, 1,315 students graduated from 14 HEIs in 2022. Just under half (700) of these students graduated from HEIs located in the proximity of County Wicklow (Dublin, Maynooth, Carlow, Waterford).

The **Kildare and Wicklow ETB** provides a wide array of courses, ranging from the popular one-day barista courses to the two-year PLC courses and traineeships. A good number of **micro-credentials in agriculture and food systems** are also offered by the UCD School of Agriculture and Food Science for highly skilled professionals. However, as the analysis in section 6.4.2 indicates, many FET courses do not seem to attract sufficient participants and few courses are running at capacity.

Although the delivery of work-based learning opportunities has so far been limited in the county, the **new apprenticeships in farming and horticulture announced by Teagasc at its colleges in Kidalton and Dublin** should help improve access to this key career pathway for those working in the agri-food sector in Co. Wicklow.

Despite the high training needs highlighted by Wicklow-based stakeholders in the **forestry** sector, the FET course provision in the area is still concentrated in the north and west of the country, with the only **arboriculture apprenticeship** delivered by the Galway and Roscommon ETB and other forestry certificates delivered at the Teagasc Ballyhaise College.

Table 6.11: HEIs and FET graduate pipeline

Education and Training Providers (HEIs & FET)	Graduates / Course Participants
HEIs (Dublin, Maynooth, Carlow, Waterford) (2022)	700[106]
KWETB – Horticulture Courses (2023)	35
Apprenticeships – Horticulture (KWETB Live Registrations as of 15/02/2024)	22
Apprenticeships – Food (KWETB Live Registrations as of 15/02/2024)	20

Higher Education Requirements to 2030

Table 6.12 presents the projected employment growth to 2030 under the three employment growth scenarios and the level of higher education provision required to meet each of the resulting skills demand scenarios.

The starting point for identifying the required level of higher education provision is the projected increase to 2030 in the number of employees in agri-food occupations in Co. Wicklow under the baseline, high growth, and low growth scenarios (detailed in Section 6.3). To account for losses due to retirement and career changes, an expected job displacement rate of 3.0% annually is applied to the projected annual number of

[106] Most recent data available as of 2022.

employees. A factor of 40%[107] is then applied to determine the share of third-level graduates out of the total additional employment projected to 2030. Thus, the additional higher education skills demand for the 2023-2030 period is projected to be 395 persons in the baseline scenario, 839 persons in the high growth scenario and 72 persons in the low growth scenario.

The scenario-specific projected higher education skills demand 2023-2030 figures are then matched with the required HEIs graduate output for Co. Wicklow. This exercise is based on several assumptions:

1. The 2022 national agri-food graduate pipeline (1,315 graduates) is kept constant until 2030[108].
2. Considering a competitive labour market with professions in food processing and other industries absorbing significant talent from the pool of agri-food graduates, only 80% of each annual cohort (i.e., 1,052 graduates) are assumed to commence employment in the sector nationwide.[109]
3. The projected additional number of third-level graduates needed between 2023 and 2030 are then matched with the national annual graduate pipeline of 1,052 graduates to determine the number required to commence employment in Co. Wicklow under each of the three scenarios.

This analysis indicates that between 2023 and 2030, **4.7% of national agri-food graduates would be required to commence employment in Co. Wicklow annually under the baseline scenario** to match the projected higher education skills demand over the 2023-2030 period (i.e., 395 people). Notably, **under the high growth scenario, 10% of national graduates (i.e., 839 people) would need to gain employment in Co. Wicklow** to meet the skills demand projected by high employment growth.

Table 6.12: Projected employment and higher education needs to 2030

Projected Employment	Baseline Scenario	High Growth Scenario	Low Growth Scenario
Agri-food employment in 2022		2,575	
+ Projected additional employment 2023-30	+326	+1,288	-384
+ Projected job displacement 2023-30	+661	+810	+565
= Projected total additional employment 2023-30	+986	+2,099	+181
Percentage of persons with higher education		40%	
Projected HE skills demand 2023-30	**+395**	**+839**	**+72**
Percentage of national HEI graduate pipeline required to match skills demand	**4.7%**	**10.0%**	**0.9%**

[107] Calculated based on the 2023 SOLAS Skills Bulletin data on the share of third level degrees across occupations and their estimated representation in the agri-food sector.
[108] As higher education stakeholders consulted noted, assumptions about how the educational offer might change in the medium and long-term would be too far-reaching.
[109] Estimated based on Higher Education Authority data on HEI graduate outcomes 2017-2022 by sector. Available at: Graduate Outcomes – All Years 2018 – 2023 | Statistics | Higher Education Authority (hea.ie).

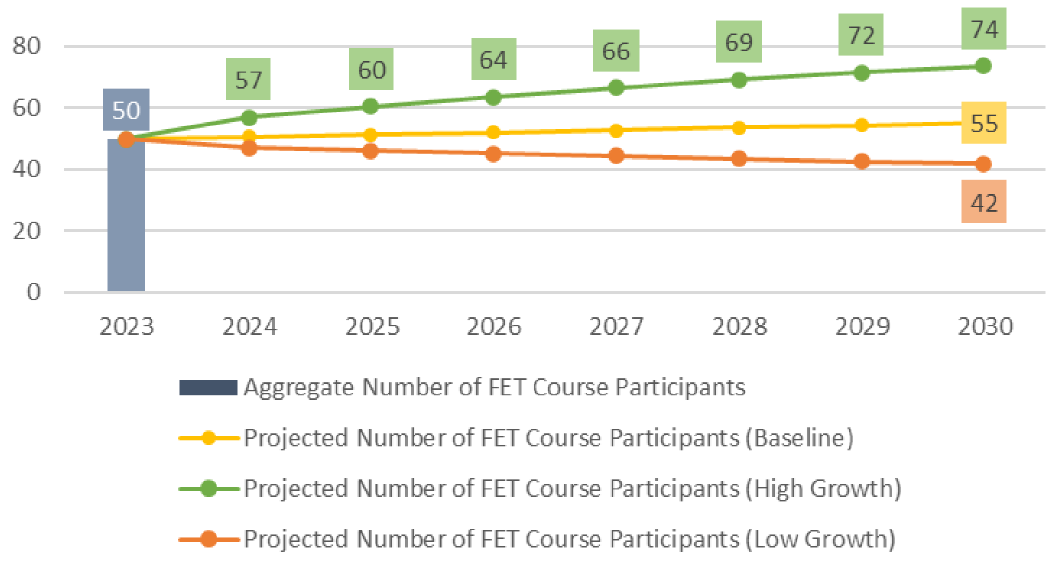
FET Requirements to 2030

The projected number of FET course places required to match the scenario-specific projected employment growth to 2030 is determined by taking into account the total number of local and broader provision of FET course places in 2023 (detailed in Table 6.11) and estimating the share of Wicklow participants in these programmes[110]. This step yields a total number of 50 FET entries in 2023, with some participants potentially enrolling in multiple courses. The 50 FET course completions in 2023 correspond to approximately one place for every 50 employees in the sector.

Maintaining the FET uptake at current levels (i.e., 1 course place for every 50 employees) and considering employment growth to 2030 means that the number of FET course provision needs to increase to 55 places (+5) offered annually by 2030 under the baseline scenario and 74 places (+24) under the high growth scenario. The annual increase in FET provision required annually to match employment growth under each of the three scenarios is presented in Figure 5.10.

Potential improvements to 2023 levels of FET uptake, such as ensuring that at least a tenth of employees are engaged in lifelong learning each year (i.e., amounting to one course completion by every ten employees), would require higher numbers of FET course places – namely, 282 places under the baseline scenario and 375 course places in the high growth scenario (with 213 places required under the low growth scenario).

Figure 6.11: Projected FET agri-food course places, 2024-2030



[110] As precise data are currently unavailable, percentages of enrolled students from Co. Wicklow for individual FET courses are based on below estimates that are susceptible to significant variation: KWETB Places on Horticulture Courses – 100% county enrolments; KWETB Places on Food and Drinks Courses – 100% of county enrolments; Apprenticeships Horticulture – 40% of places offered regionally (noted counties of work are Kildare and Wicklow).

Matching Skills Supply with Labour Market Demand – Areas for Action

This section puts forward several approaches that can help bridge the labour market demand and employment growth to 2030 with enhanced higher and further education and training provision that responds to industry skills needs.

Industry-led approach to training provision

Engagement with education providers indicates that businesses cannot afford to cover the costs of work-based training programmes or to release staff on study leave for long periods of time. In general, consultees emphasised, long courses, including accredited courses, do not suit employers. Therefore, to increase the offer of education and training in study fields that are characterised by critical skills shortages in the industry, **more incentives need to be offered to employers, employees, and people outside employment or looking to upskill to avail of work-based learning opportunities.**

To stimulate demand for courses in the agri-food industry, Irish education and training providers must embrace agility in their offerings. Sectoral Skillnet business networks, who partner with companies to develop the talent their business needs and fund these companies' preferred training solutions offer an **efficient, industry-led approach to training that ensures people are being trained in the skills businesses need.**

The dynamic nature of the agri-food sector requires educational programs to be responsive to emerging trends, technological advancements, and evolving industry needs. Providers should engage with industry experts, collaborate with companies, and continually update their curricula to ensure relevance and practical applicability. Flexible learning formats, including online courses and part-time options, can cater to the diverse needs of individuals already engaged in the workforce. Furthermore, establishing partnerships with key stakeholders such as agri-businesses, research institutions, and government agencies can offer insights into the specific skills and knowledge required. By fostering agility, education and training providers can proactively respond to the demands of the agri-food industry, producing a workforce that is equipped with the skills needed to drive innovation and sustainability in the sector.

Linking skills funding to company employment

To encourage employees to actively pursue upskilling opportunities, food and drinks companies can implement a range of incentives that encourage both upskilling and talent retention. For example, companies sponsoring employees to complete courses or study programmes can make funding conditional on employees continuing to work for the company for a minimum period following completion of their training that ensures a return on the investment made in professional development. Structured career development programs that align employees' newly acquired skills with potential career advancement within the company could also further incentivise employees to consider upskilling opportunities that may be carried out during or outside working hours. Additionally, companies can create a supportive environment by allowing flexible work schedules to accommodate coursework.

By offering financial incentives, such as covering course fees or providing performance-based bonuses, companies create motivation for employees to enrol in relevant courses. This will create an increase in demand for educational opportunities that will contribute to a positive cycle, fostering collaboration between educational institutions and industry stakeholders to tailor courses that align with the evolving needs of the sector. The prospect of career advancement and the acquisition of valuable skills make these courses more attractive, not only to current employees but also to potential candidates entering the workforce. This relationship between companies and educational providers not only meets the demand for skilled professionals but also stimulates innovation and competitiveness within the industry. As a result, the industry benefits from a well-trained and adaptable workforce, ensuring sustained growth and excellence in a rapidly evolving landscape. **A combination of financial incentives, a supportive workplace, and strategic retention measures will contribute to enticing and retaining a skilled workforce in the county.**

Encourage organisational and sectoral skills audits

Research carried out by the L&D Skillnet and the Learning and Development Institute draws attention to the need for companies to embark on a "skills-first" journey that enables them to align the supply of skills with organisational strategic goals[111]. The key elements of a "skills-first" framework include the development of a **skills taxonomy** that describes the skills required across the organisation and an **audit of the skills** that are currently available within the organisation. Next, companies need to be able to anticipate the talent and skills required in the future based on the assessment of **external trends in skills needs and availability** and to revise their **job architecture** by simplifying structures and job families as a means of developing sustainable career opportunities and easing mobility within the organisation.[112]

As few companies in Ireland have implemented skills-first approaches, education, and training providers, Skillnet business networks as well as business support agencies and other local stakeholders can consider a number of skills interventions designed to enable local businesses to meet their skills needs.

The development of **tools for conducting skills audits** and internal demand are among the key interventions recommended in the Skillnet Ireland 2023 report. Local businesses in the food and drinks sector could be assisted in conducting comprehensive skills audits by engaging with both local and governmental organisations to ensure a holistic assessment of the wider industry's needs. The collaboration can involve consulting with local agricultural and industry associations, such as the Irish Farmers' Association and Food Drink Ireland, to gather insights into sector-specific requirements and emerging trends. Companies can also liaise with governmental bodies such as the Department of Agriculture, Food, and the Marine, and relevant regulatory agencies to align the audit with industry standards and compliance obligations. Collaborating with local employment and training boards can provide valuable resources for skill development programs. Additionally, partnerships with local universities and research institutions along with the KWETB can help facilitate access to research and expertise. By involving these local and governmental organisations, companies can ensure that the skills audit not only meets industry benchmarks but also contributes to regional development and aligns with broader national strategies for the agri-food sector in Ireland.

[111] Skillnet Ireland (2023). *Skills-First: An emerging approach to managing human resources for the new world of work*. Available up: [Skills-First: An emerging approach to managing human resources (skillnetireland.ie)](#).
[112] Ibid., pp. 39-40.

07 Key Sector Analysis: Tourism & Hospitality

7 Key Sector Analysis: Tourism & Hospitality

7.1 Factors Shaping Demand for Skills

This section outlines recent trends and developments in the tourism and hospitality sector as well as national and local policy responses aimed at an inclusive sector recovery in the aftermath of the COVID-19 pandemic. An overview of the sector in Co. Wicklow, which describes employment trends across relevant industry groups and occupations, concludes this section.

7.1.1 International Trends and Implications for Workforce and Skills

Outlook for Tourism Recovery

The 2022 edition of OECD Tourism Trends and Policies[113] highlights the challenges that the tourism sector has had to face due to the unprecedented depth and duration of the COVID-19 pandemic. Tourism bounced back strongly in 2022 only to confront new uncertainties causing **economic slowdown and geopolitical instability** as a result of Russia's war in Ukraine. Tourism businesses have had to face rising energy and food costs, as well as labour shortages and skills gaps, and the domestic consequences of the **cost-of-living crisis**, which lead household budgets to reduce spending on entertainment and tourism items.[114]

These trends are replicated in Ireland, where tourism is an important sector for revenue and jobs. The impact of the COVID-19 pandemic saw the **tourism share of employment decline from 12.3% to 10.3% of national employment**. Although traditionally inbound tourism accounted for 70% of total tourism revenue, the 80% decline in international tourists in 2020 meant that domestic tourism took over as the main source of tourism revenue. In 2022, domestic tourism is expected to account for between 50% and 60% of the tourism economy, with international tourism expected to track at approximately 75% of 2019 levels. The medium to long-term outlook indicates that **tourism in Ireland will return to 2019 levels by 2025 or 2026**.[115]

The onset of the cost of living crisis has somewhat slowed down the pace of the expected recovery. New research[116] carried out by Fáilte Ireland in the summer of 2023 found that many operators (especially food and drinks and activity providers) were **struggling to break even due to rising costs –** particularly rising energy and operating costs – even if visitor levels were up. For example, the impact of the rise in operating costs can be seen in the announcement of the closure of Sea Life Bray in December 2023 after twenty five years in business. The challenges faced by the tourism industry are also compounded by the **shortage of available and affordable tourist accommodation,** which add to the pressure on non-accommodation businesses as they had to face the

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[113] OECD (2022), *OECD Tourism Trends and Policies 2022*, OECD Publishing, Paris. Available at: https://doi.org/10.1787/a8dd3019-en.
[114] OECD (2022), "Tourism trends and policies for recovery", in OECD Tourism Trends and Policies 2022, OECD Publishing, Paris. Available at: https://doi.org/10.1787/eb68c169-en.
[115] OECD (2022), "Ireland", in *OECD Tourism Trends and Policies 2022*, OECD Publishing, Paris. Available at: https://doi.org/10.1787/0b7e135d-en.
[116] Fáilte Ireland (2023). *Tourism Barometer September 2023*. Available at: Tourism Barometer 2023 (failteireland.ie).

consequences of the lack of tourist accommodation in their area. Moreover, the **combined effect of accommodation supply shortage and rising operating costs on prices** also affects tour operators, who indicate that overseas clients are reconsidering including Ireland in their programmes for 2024. Stakeholder engagement conducted as part of the current research confirmed that the acute shortage of tourist accommodation across County Wicklow affects all services providers in the tourism sector, including food, entertainment, and activities providers.

Labour and Skills Shortages

One of the key policy priorities highlighted for tourism recovery in the OECD report is that of **tackling labour and skills shortages to rebuild the tourism workforce**. Action in this area is not only needed because of the wider trends that are changing the nature of work making it essential to upskill and reskill the tourism workforce to adapt to changing consumer and business needs, but also because the disruption caused by COVID-19 led tourism workers to leave the sector for job opportunities elsewhere in the economy. Despite the targeted support packages for tourism introduced during the pandemic, tourism's share of total employment fell across most OECD countries.[117]

Longstanding issues – such as **job insecurity**, **low salaries**, and **career prospects –** have made it difficult for tourism and hospitality businesses to attract and retain workers in an ever increasingly competitive labour market. In Ireland, the challenge of attracting new workforce is also affected by the **economy nearing full employment**. Similar difficulties to attract and retain labour and skills in sectors such as aviation and transport have had further negative effects on local businesses. The **reliance on international staff** – a significant proportion of whom relocated home as a result of the Covid-19 pandemic – and **employees moving to retail, distribution and construction** sectors meant that businesses have been under significant pressure to hire and train new staff.

The **survey of tourism and hospitality labour market survey**[118] published by Fáilte Ireland in 2022 found that 30% of the businesses surveyed faced closure due to recruitment challenges. In the summer of 2021, one third of workers in the sector were new to tourism and hospitality and out of 40,000 vacancies, 24% were at senior level. Chefs stood out as an industry crisis position with 88% of participant companies stating that they are having 'considerable difficulty' recruiting chefs, while more than 60% had 'considerable difficulty' recruiting bar and waiting staff and drivers. Four in ten tourism and hospitality workers that had benefitted from pandemic supports did not return to their pre-pandemic employers. Key recruitment challenges included the rate of pay and the working conditions, with the loss of international workers affecting severely the food service sector.

In October 2022, Fáilte Ireland found that workforce shortages remained a key challenge for Ireland's tourism sector, but pressure had started to ease as employers increased hourly pay rates and introduced more flexibility in shift patterns and compensation for working unsocial hours[119]. As a result, vacancies reduced from 40,000 to 22,000 in

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[117] OECD (2022), *Employment Outlook 2022*. Available at: https://www.oecd.org/employment-outlook/2022/.
[118] Fáilte Ireland (2022). *Tourism Careers: Labour Research*. Available at: Tourism Careers: Labour Research (failteireland.ie).
[119] Fáilte Ireland (2022). *Tourism Careers Research Autumn Update*. Available at: Tourism Careers Update.

tourism and hospitality jobs, with workers and employers reporting growing job security and improvements in day-to-day operations. However, as Fáilte Ireland noted, the reported decline in job vacancies did not mean that 18,000 positions were filled. Rather, factors such as firms adapting their business models, building in staff efficiencies etc. contributed to the reduction in demand for workers.

Responding and Supporting Recovery

The OECD 2022 tourism report urges the sector to **address longstanding issues in terms of wages, working conditions and reputation** to attract the necessary workforce. The stringency of this challenge has been acknowledged at the EU level through the creation of the European Commission's **Transition Pathway for Tourism**[120], which aims to increase fairness and equality in tourism jobs while developing and renewing tourism education in partnership with the industry and education providers, and the **EU Pact for Skills – Skills partnership for the tourism ecosystem**[121]. The Pact was launched in 2022 to promote joint actions to improve existing skills (upskilling), provide new skills (reskilling) and address labour shortages.

Similarly, at country level, there is a lot of reliance on public sector bodies to produce solutions to the challenges that tourism and hospitality face. Several Irish initiatives – championed by Fáilte Ireland – have been highlighted for improving working conditions to address workforce and skills shortages. These initiatives include a new r**ecruitment marketing and awareness campaign** launched in late 2021 that targets both jobseekers and tourism businesses; a new **learning platform** to provide free, high quality, self-directed learning courses to upskill staff and build business capability; and a new **Employer Excellence Programme** that was developed to support businesses to drive employee engagement and build workplace appeal.

Technological Advances and Digitalization

Building a strong and resilient tourism sector requires investment in the sector's efforts to recruit and develop new skills for its future workforce. For example, tourism lags behind other sectors in the **adoption and use of advanced new technologies**. A large study on the **digital skills gaps** in tourism and hospitality across Europe found that the largest need in terms of digital skills involved online marketing and communication skills, social media skills, MS Office skills and operating systems use skills[122]. Acknowledging and addressing the digital skills gap would entail changes in the qualifications required by tourism businesses and investment in new teaching and training programmes. Additionally, the development of digital skills to manage and monitor business functions, human resource management, customer reservations and electronic point of sales contact, supply chain management and gathering customer data are key parts of the digital innovation area that tourism businesses need to develop. This is also vital in the development of wider **data analytics skills** within the tourism sector, as identification of USPs and efficiency improvements are key skills which can enhance business services.

[120] European Commission (2022), Transition pathway for tourism. Available at: https://data.europa.eu/doi/10.2873/344425.
[121] European Commission (2023), The EU Pact for Skills – Skills Partnership for the Tourism Ecosystem. Available at: The EU Pact for Skills – Skills Partnership for the Tourism Ecosystem (europa.eu).
[122] Carlisle, Ivanov, and Dijkmans (2023). The digital skills divide: evidence from the European tourism industry. *Journal of Tourism Futures* 9(2): 240-266. Available at: The digital skills divide: evidence from the European tourism industry | Emerald Insight.

Cross-government collaborations will be required to facilitate the digital transition for tourism businesses, which will include the development of new digital platform, education, digital services, and funding.

Green Skills and Sustainable Tourism Development

Another area that requires new sets of skills to meet demands from environment-conscious travellers as well as national climate change targets is the green transition. Digitalisation also provides opportunities to use technology to provide solutions for green and sustainable tourism management. Examples of green skills for tourism businesses include conducting energy audits, measuring the sustainability of tourism activities, and training staff on recycling programmes. Globally, governments are revising their policy frameworks to promote sustainable and responsible tourism, focusing on environmental and cultural preservation, and seeking the job creation opportunities offered by the greening of tourism and ecotourism[123].

Aligning tourism policies with sustainable practices, emphasising ecotourism and responsible tourism, and encouraging the preservation of natural and cultural resources are some of the key actions gaining traction in Ireland. In times of economic challenges, the skills landscape in tourism and hospitality should include cost-effective service delivery while maintaining quality and value for guests. Furthermore, the maintenance of quality and value for guests aligns with the move towards digitisation in the tourism and hospitality sector. The workforce within the sector needs digital skills for managing online bookings, using customer relationship management systems, and ensuring a seamless digital experience for guests.

7.1.2 Tourism and Hospitality Policies and Implications for Skills Development

This section provides a selective overview of key national, regional, and local tourism strategies of primary importance for County Wicklow, emphasising the key skills that will be required for their implementation.

Sustainable Tourism Policy

Work towards the development of a new national strategy to promote sustainable tourism in Ireland consistent with sectoral climate change targets and commitments began in 2019 under a newly formed Sustainable Tourism Working Group. As part of initial responses to the COVID-19 pandemic, the focus shifted towards providing supports so that the tourism sector could adapt and recover in the changed tourism environment.[124] Nevertheless, the development of new national tourism policies that deliver on Ireland's ambition to be among the world-leaders in sustainable tourism practices continues. As such, it is crucial that the new policies also identify the **skills required to deliver the sustainable tourism ambition** and the **strategies for supplying the skills needed.**

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[123] International Labour Organization (2022). *The future of work in the tourism sector: Sustainable and safe recovery and decent work in the context of the COVID-19 pandemic*. Available at: The future of work in the tourism sector: Sustainable and safe recovery and decent work in the context of COVID-19 (ilo.org).

[124] OECD (2022), "Ireland", in *OECD Tourism Trends and Policies 2022*, OECD Publishing, Paris. Available at: https://doi.org/10.1787/0b7e135d-en.

Fáilte Ireland Strategies

The **Ireland's Ancient East** (IAE) brand was launched in 2015 as a mechanism to unify the region as an internationally marketable tourism destination. By 2019, tourism in Ireland's Ancient East was worth €1.7bn to the regional economy supporting approximately 55,200 jobs. Over half (55%) of this revenue was generated by international visitors. Covid-19 dealt a heavy blow to tourism providers across this region, causing heavy workforce and skills shortages, and a return to 2019 levels of revenue is not expected before 2026. In this context, **Ireland's Ancient East Regional Tourism Development Strategy 2023-2027**[125] set out a strategic approach to unlock the commercial potential of Ireland's Ancient East while ensuring development is sustainable and the benefits accrue to local communities and protect the natural environment.

The role of Fáilte Ireland's **Destination Experience Development Plan (DEDP)** for Co. Wicklow is to support the development of world-class experiences focused on the region's rich ancient heritage while adding to the overall destination proposition. Wicklow has benefited previously from Fáilte Ireland Visitor Experience Development Plans, such as ***Vikings*** – which promoted the country's offering as a Viking destination – and ***Tales of Two Worlds***, which focused on ***Great Houses and Gardens*** experiences in the county. While these plans are now complete, Fáilte Ireland aims to continue to develop DEDPs to address experience development gaps across the region. These plans will provide the context for tourism operators and stakeholders to work in partnership, create new and improved existing visitor experiences, and communicate coherent and unified stories to the visitor. Nevertheless, to develop new and enhanced visitor experiences, it is critical that **training programmes in destination management** and **commercial management of recreation** – which are currently in very short supply in Ireland – be set up in collaboration with third level and further education and training providers.

County Wicklow Tourism Strategy and Marketing Plan 2018 – 2023

Co. Wicklow's vision for tourism is to become **the go-to-place for outdoor recreation**, **establish the county as a year round destination**, and **capture more overnight tourism**. The target set for Wicklow was to outperform the forecast all-IAE growth rates over the period 2018-2023 achieving visitor numbers of 750,000 and spend of €200m by 2023 (at 2017 prices) up from €157m in 2016. It was also estimated that every €1m tourism revenue would deliver 27 jobs in the county.

The implementation programme for the strategy requires the upskilling and/or training of tourism workers in a wide range of skills. For example, the creation of a Glendalough Visitor Masterplan, development of a brand narrative, development of Blessington Greenway, and the creation of Visitor Hubs in Wicklow, Bray, Greystones and Arklow require **skills in planning, tourism, digital marketing, and hospitality**. Medium term actions, such as the creation of a Glendalough Visitor Centre, extending the brand toolkit, and establishing new signature festivals to extend the tourist season, require **skilled professionals in planning, transport, hospitality, catering, construction, and manufacturing**. These actions are aimed at extending the tourist season and

[125] Fáilte Ireland (2022). *Ireland's Ancient East Regional Development Strategy*. Available at: Failte Ireland - Ireland's Ancient East Regional Development Strategy.

guaranteeing that visitors without private vehicles will have the capability to access and remain in Wicklow as overnight visitors.

Outdoor Recreation

Given the ambition laid out in Co. Wicklow's Tourism Strategy to become the go-to place for outdoor recreation, policies in this area have a strategic importance. The recent adoption of ***Embracing Ireland's Outdoors: National Outdoor Recreation Strategy 2023-2027***[126] promotes outdoor recreation as a key driver of tourism and sustainable economic development in Ireland. The strategy and its objectives have implications for the skills required within the tourism sector including creating a demand for **skilled guides, instructors and activity leaders** who can provide safe and enjoyable experiences for tourists in hiking, cycling and water sports. **Adventure tourism**, which is another key component of outdoor recreation, **requires professionals who can manage tours and ensure appropriate safety** and are well versed in sustainable tourism practices, environmental management, and nature conservation.

As highlighted in the other key sectors in this strategy, demand for skills in digital technology is on the rise in the tourism and hospitality sector. **The use of digital technology in booking, navigation, and enhancing visitors' experiences and integrating that technology into outdoor recreation service and hospitality** are increasingly vital. This experience in digital technology also applies in the streamlining of transportation and logistics in the sector. In line with improving visitor's experiences and increasing visitor numbers, the demand for accommodation and hospitality services in rural and outdoor settings are bound to rise. This requires professionals in hotel management, guest services and event planning.

Co. Wicklow's own **Outdoor Recreation Strategy**[127] provides a blueprint for realising the potential of Wicklow's outdoor recreation assets in a way that prioritises environmental sustainability. The Strategy identifies five outdoor recreations hubs and their clusters, namely Glendalough, Rathdrum, Blessington/Baltinglass, Tinahely/ Shillelagh and the East Coast maritime. The objectives identified include the expansion of the trails network, preparation of an outdoor recreation transport plan and increase awareness of environmental and cultural responsibilities. To realise the potential of outdoor recreation in the county, the Strategy highlights the need to **identify the existing outdoor recreation skills and experience** within the sector as well as the **training and education needs** in areas such as **project planning**, **project development** and the **delivery of outdoor recreation**.

7.1.3 Sectoral Landscape in County Wicklow

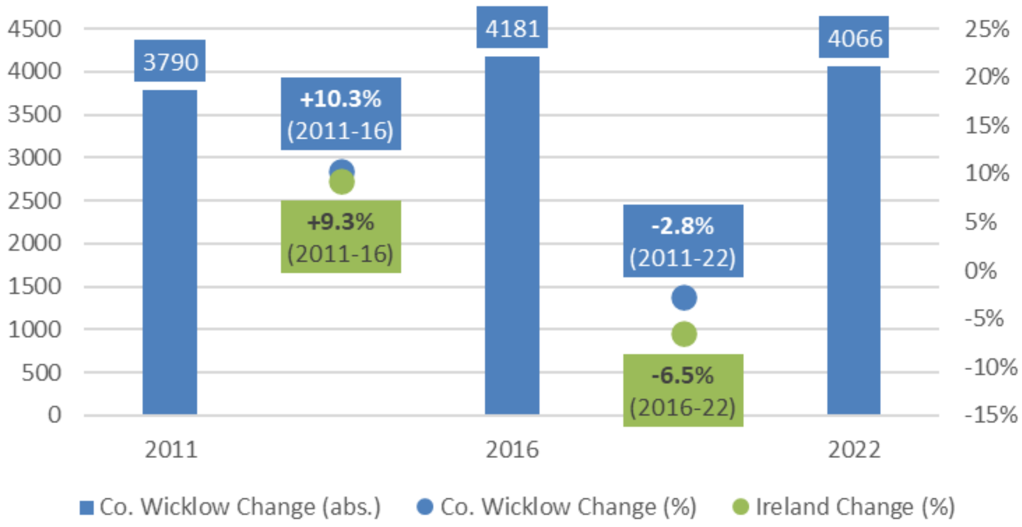
Although tourist numbers have been rebounding in Ireland since 2021[128], employment in tourism and hospitality roles has remained below 2019 levels[129]. The factors responsible for the slower recovery of employment include the repurposing of hotels to accommodate refugees, inflation rates, and changes to the VAT rate, which also affected consumer

[126] Department of Rural and Community Development (2022). *Embracing Ireland's Outdoors: National Outdoor Recreation Strategy 2023-2027*. Available at: National_Outdoor_Recreation_Strategy.
[127] Wicklow County Council (2019). *County Wicklow Outdoor Recreation Strategy 2020-2025*. Available at: Co Wicklow Outdoor Recreation Strategy.pdf
[128] O'Connor, B. (2023). *Domestic vs Overseas Tourism – Ireland 2023* [Industry Report]. Mintel.
[129] SOLAS (2023). *National Skills Bulletin 2023*, p. 6. Available at: national-skills-bulletin-2023.pdf.

spending and business costs. Moreover, as often noted by stakeholders, the fact that visitors to attractions in Co. Wicklow are primarily day tourists, does not allow local hospitality businesses to take full advantage of the rising tourist numbers.

Figure 7.1 compares employment trends in tourism and hospitality in Ireland and Co. Wicklow. As of 2022, 5.4% (or 4,066 persons) of the county's labour force was employed in the sector, a decline of nearly 3% since 2016. This figure is marginally higher than for Ireland overall, where 5.1% of the labour force is active in tourism and hospitality.

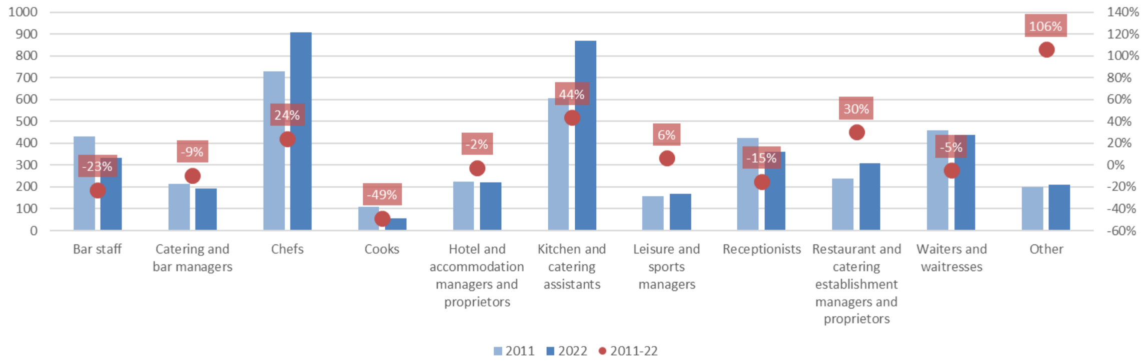
Figure 7.1: Employment Trends in Tourism and Hospitality, 2011-2022



Total employment in the sector can be further broken down into the 15 occupations[130] included in Figure 7.2. Between 2011 and 2022, six occupations recorded employment growth, with the highest absolute and relative growth registered among chefs, kitchen and catering assistants, and receptionists and catering establishment managers and proprietors. Conversely, employment in nine occupations decreased, with the highest absolute and relative decline among bar staff, cooks, and receptionists. The medium to long-term national outlook is for tourism in Ireland to return to 2019 levels by 2025 or 2026.[131] Whether this can be reflected by a return to pre-pandemic employment levels in the sector depends on local conditions and actions that are looked at in the Projected Skills Demand and Skills Supply sections below.

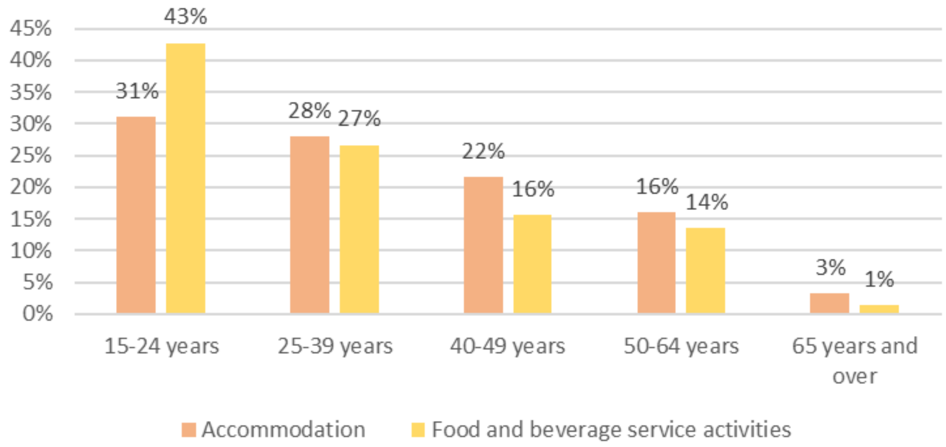
[130] These figures include Co. Wicklow residents employed in the 15 occupations in or outside Co. Wicklow.
[131] OECD (2022), "Ireland", in *OECD Tourism Trends and Policies 2022*, p. 191.

Figure 7.2: Employment in tourism and hospitality occupations, 2011-2022



While the demographic data on employees in the sector are incomplete, 2022 statistics for two subsectors point at relatively young age profiles for employed persons at national level: 70% of employees in 'Food and beverage service activities' and 59% of employees in 'Accommodation' are 15-39 years old (Figure 7.3). Such high percentages compared to the overall labour market are likely related to higher job insecurity and lower average salary levels in the sector.

Figure 7.3 Age breakdown of employees in tourism & hospitality (2022, Ireland)



Source: Eurostat (2023), *Employment by, age and detailed economy activity*.

7.2 Stakeholder Views

Themes	
Biggest challenges	The **scarcity of accommodation options**, for both tourists and local events, has emerged as a significant challenge for the county and its tourism sector. The accommodation shortage was an issue prior to COVID-19, however, the pandemic combined with the war in Ukraine has forced the reallocation of accommodation options and thus limited the supply further. Interviewees noted the total absence of hotels in key towns in West Wicklow, such as Blessington. The example of the International Sheepdog Trials in Blessington and the difficulty in those visiting for the event obtaining accommodation is

Themes	
	highlighted as a clear obstacle to Wicklow fulfilling its potential in the tourism industry and making full use of visitor numbers to the area. Wicklow, it was argued, has both **high-end accommodation and camping sites, but hardly anything in the middle**. Interviewees urged the local authority to get more proactive and innovative in zoning land for development to facilitate the addition of alternative accommodation options that can achieve critical mass and economic feasibility. **The lack of accommodation impacts greatly on the ability of tourism and hospitality providers to attract and retain workers** in Co. Wicklow. Hotels struggle to find workers unless they can offer accommodation to potential employees to make up for high rental costs or lack of public transport for commuters. While larger hotels can offer free accommodation and meals, smaller businesses are unable to cover these costs, and, as a result, struggle to attract workers, particularly foreign nationals. Alongside the lack of and cost of accommodation, a significant issue when it comes to attracting and retaining workers as well as visitors is **the lack of efficient public transport routes into and within Wicklow**. For those who do not have access to a car and are not living in the main towns of Wicklow (i.e., Bray, Greystones, Arklow, Wicklow), the lack of transport impacts on their employment prospects. On the other side of the tourism industry, despite the proximity of major transit routes such as the N11 motorway the absence of public transport options to Wicklow's most famous attractions leaves visitors with restricted means to explore the county. **The lack of public transport also negatively impacts Wicklow's aim to adopt a more sustainable and environmentally friendly approach to developing the industry.** For example, visitors using their cars and overloading parking facilities at attractions leads to a poor customer experience and a lower likelihood of day trips and overnight visits. Therefore, encouraging a more sustainable mode of transportation while maintaining visitor convenience and comfort remains a balancing act.
Supports for the sector	Roundtable discussion attendees recommended **extending the 9% VAT rate to the tourism industry**. This measure would be a major benefit to the industry as the cost of running businesses has skyrocketed in recent years and trying to keep up with these costs along with rising wage demands amongst workers has left several businesses unable to operate in the county. Businesses have also pointed to the need for the creation of **more accommodation options** and **greater public transport linkages** within the county. The lack of public transport linkages within the county means that workers in Bray, Greystones find it easier to work in the industry by commuting into Dublin rather than working in the county as there are better connections to Dublin than the rest of Wicklow outside of the major towns. Business networks from East Wicklow pointed out that even affluent areas like Bray and Greystones – which are primed for tourism and expenditure – need to be profiled better. These areas also need **support and direction in terms of tourism from the local authorities**. For example, retailers are frustrated with the closure and delays in the reopening of the Bray Head walk, which typically attracts numerous visitors and has a significant impact on spending in the town. here is a sense of frustration with the supports available

Themes	
	as retailers argued a sense of urgency in enabling opportunities for local businesses. One of the main constraints highlighted is the lack of promotion and the need to develop a **cohesive tourism brand** for Co. Wicklow. Interviewees noted that while Co. Wicklow has great cultural, heritage and nature attractions, there needs to be a more **targeted campaign to push the attractions within and beyond the county**.
Skills shortages	Stakeholders point to the **lack of a workforce from 'kitchen chefs right through to accommodation assistants and kitchen porters.'** The lack of continuity in the sector due to seasonal work was highlighted as a major problem in retaining skilled workers. As a result, businesses are forced to rely on part-time workers, particularly students during the summer months. Soft skills or customer-facing skills were also highlighted as an area in great need of improvement across the workforce, but especially for young people who completed their education in a virtual or hybrid environment during Covid-19. The lack of chefs has pushed some hospitality businesses to adopt **a "no chef model"**, which involves ordering premade food that is delivered and heated on the premises. Obviously, a widespread adoption of this model would run counter to Wicklow entering Foodie Destinations Ireland, which is one of the county's Food and Beverage Strategy objectives. Business representatives also mentioned the difficulty to fill **supervisor, middle management,** and **senior management** positions, as there is a shortage of people well versed in the field of guest and customer experience. In relation to the new attractions and visitor experiences planned for the county or recently established, such as the treetop walk in Avondale, stakeholders drew attention to the acute shortage of **destination management skills**. Currently, no programmes at any level – or even modules in various courses – are provided on destination management of commercial management of recreation. In general, it was argued, forestry courses – or indeed other areas – do not provide any tailored courses to equip students with skillsets fit for **outdoor recreation management**.
Skills development needs	As Coillte is starting to **pivot from forestry management to outdoor recreation management**, a lot more engagement is needed to communicate the existing skills gaps to education and training providers. Currently, it was emphasised, **a formal engagement process between industry and education providers is missing**. Potential avenues for progression were suggested, either through the addition of modules on attraction management to existing third-level courses – such as the Tourism Management courses at TU Dublin – or through development by ETBs and other technical universities operating close to Wicklow. The development of these courses, interviewees underlined, will help to both upskill the local workforce in Wicklow and create a new supply of workers for the sector. Stakeholders highlighted the impact of the COVID-19 pandemic alongside the development of modern technology skills at the expense of **interpersonal skills** which are crucial in the tourism industry. Young people working in the sector could do with an improvement in **customer-facing skills**, such as **customer interaction and engagement**. Therefore, more emphasis on

Themes	
	these skills in FET courses and other third-level education providers would help address this specific skills shortage in the industry. As businesses are increasingly focusing on increasing their sustainability, the **lack of knowledge around green and sustainable practices** suggests the need for more training and awareness programmes in this area.
Strategic / collaborative actions	In terms of attracting and retaining workers in the industry, there was a clear desire to develop an **early intervention plan** to make the industry more attractive to potential workers, particularly young students, whether in secondary school or college. The lack of a **progression plan** within the business was highlighted as a reason for the lack of retention of staff and something that would improve continuity within the workforce. The difficulty in retaining young staff is that 'they don't see the industry as a long-term career' and the lack of progression plans for businesses is a major issue. However, establishing a clear line of progression beginning at waiter/porter and leading up to manager or other more senior roles based on years of experience would be a strategic action that could massively boost the attractiveness of a career in tourism. Tourism service providers pointed to the challenge the industry has in understanding the current gaps in their services offering that can be better aligned with customer expectations. The need for a **wider conversation with authorities** to identify 'solutions and actions' that can be formed through 'engagement and feedback' with visitors and the wider public was also highlighted. Business representatives appreciated the roundtable discussion organised for this study and expressed a desire to see more similar conversations taking place in the future, as this had been the first time most attendees had been "made aware of or invited to a discussion of this nature".
Other opportunity Areas	Stakeholders pointed to eco-tourism as an area of great opportunity for Co. Wicklow, due to its location and natural amenities – *"We have open spaces, rivers, mountains that people still want to visit".* However, the sector needs more supports, information, and links with other areas in Europe that have followed the eco-tourism path. The cross-over of local organic foods and produce and tourism presents more opportunities for growth. Plans to install **electric bikes** in Bray were pointed to as an opportunity 'to be expanded across the county' to tackle the lack of public transport and improving access. Other ideas included joining together national parks to create an interconnected **'national park loop'** that could include 'Glendalough, Roundwood, Lough Tay, and others. The opportunity to operate in the model of a 'ski resort with connections to get around different locations' was proposed as a solution to encourage visitors who may not have access to a car and the lack of connectivity with public transport routes.

7.3 Projected Skills Demand

Potential 2030 employment figures in the tourism and hospitality sector consider labour force trends, characteristics of the tourism workforce, and sectoral trends. Three scenarios are derived based on the potential variability of these parameters. However, due to limitations in the current sectoral employment landscape, the volatility in recent employment trends, and the methodological difficulty to project forward from low numbers, the scenarios presented below should be interpreted with the caveat related to the high degree of uncertainty they are characterised by.

Table 7.1 shows the number of Co. Wicklow residents employed in tourism and hospitality in 2022 and forecasted employment figures for 2030 under three scenarios of constant, high, and low growth employment expectations for this sector. The same scenarios as well as past employment levels (2011, 2016, 2022) in tourism and hospitality in are displayed in Figure 7.4, while projected annual growth estimates for the three scenarios are displayed in Figure 7.5.

Table 7.1: Scenarios for Projected Skills Demand in Tourism and Hospitality

Employment 2022 (Census 2022) || % Labour Market	Scenario	Forecasted Employment 2030	Forecasted Growth 2022-2030
	High Growth	5,752 6.8%	+41.5%
4,066 5.4%	**Baseline**	4,580 5.4%	+12.6%
	Low Growth	3,459 4.1%	-14.9%

Figure 7.4: Tourism & Hospitality – Projected Employment Trends, 2011-2030

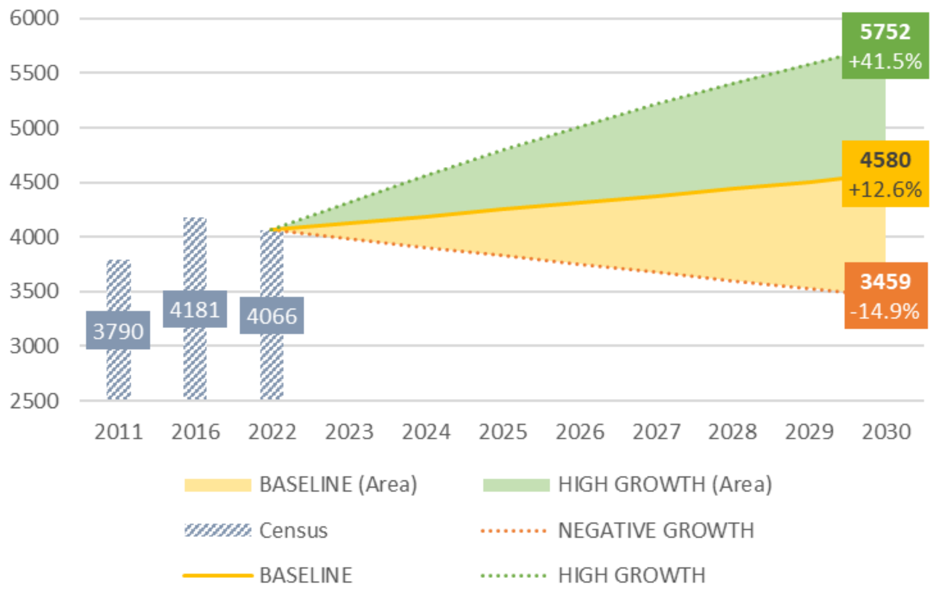


Figure 7.5: Tourism & Hospitality – Projected Absolute Employment Growth, 2011-2030

Baseline Scenario

Under the **baseline scenario**, tourism and hospitality employment is expected to remain at the 2022 level of 5.4% of the county labour force. Underlying assumptions for this scenario include:

- The continued growth of the sector overall due to a rebound effect from the Covid19-pandemic.
- Falling short of establishing Co. Wicklow as a distinct tourist destination with new attractions and additional tourist accommodations and not primarily relying on day trips from Dublin.
- A decreasing level of competitiveness for Co. Wicklow compared to other regions due to high cost of living and limited access to housing and transport.

The projected growth of the labour force implies an increase in the number of employees in tourism and hospitality occupation by 12.6% (amounting to 514 persons) reaching 4,580 persons in 2030 (see Table 7.2 for the yearly workforce change over this period).

Table 7.2: Baseline Scenario – Yearly change in tourism and hospitality employees

2023	2024	2025	2026	2027	2028	2029	2030	Total
+59	+62	+64	+62	+60	+66	+65	+75	**+514**

High Growth Scenario

The **high growth scenario** assumes that employment in tourism and hospitality will increase significantly by 41.5% (1,686 persons) and will reach 6.8% of the county's labour force in 2030[132] (see Table 7.3 for the yearly workforce change over this period).

Table 7.3: High growth scenario – Yearly change in tourism and hospitality employees

2023	2024	2025	2026	2027	2028	2029	2030	Total
+253	+242	+230	+218	+205	+192	+179	+167	**+1,686**

Underlying assumptions for the high growth scenario include:

- The continued growth of the sector overall due to a rebound effect from the Covid19-pandemic.
- Medium to long-term outlook on post-Covid19 recovery, which indicates that tourism in Ireland will return to 2019 levels by 2025 or 2026.[133]
- Consolidation of County Wicklow as a multi-day visitor experience as a result of further diversifying the industry, including the addition of new attractions and expanding various forms of tourist accommodations.
- Improvements in infrastructure around housing and transport ensure continued competitiveness of County Wicklow compared to other counties and countries.

Low Growth Scenario

The **low growth scenario** assumes that the number of people employed in tourism and hospitality will decrease by 14.9% (amounting to a decline of 607 employees), falling to 4.1% of the county's labour force by 2030.[134] The yearly workforce change over the 2023-2030 period is shown in Table 7.4.

Underlying assumptions for the low growth scenario include:

- Disrupted growth due to a general economic downturn, or insecurity because of sectoral crises (e.g., climate or weather events leading existing enterprises exiting the market and preventing new enterprises being established).
- A failure to establish County Wicklow as a tourist destination and not primarily relying on day trips from Dublin, including the failure to establish new tourist attractions and additional tourist accommodations.

[132] For the high growth scenario, recent growth figures from the Business Demography statistics are used and an annual degressive factor of 0.90 (i.e., expecting the sector to still grow significantly, but at a lower rate – 90% - than that achieved in 2022) is applied to project forward the 2022 employment numbers from the Occupations statistics forward.
[133] OECD (2022), "Ireland", in OECD Tourism Trends and Policies 2022.
[134] For the Low Growth scenario, a degressive growth factor (0.98) is applied to the 2022 sector's share in the labour force (i.e., expecting the sector to decrease its share in the labour force by 2% annually) to project the 2022 employment numbers from the Occupations forward.

- A decreasing level of competitiveness of Co Wicklow compared to other regions and countries due to high cost of living, limited access to housing and transport, and a failure to establish additional accommodation and tourist attractions.
- A lack of persons with the desired levels of qualification and a mismatch in upskilling opportunities provided.

Table 7.4: Low growth scenario – Yearly change in tourism and hospitality employees

2023	2024	2025	2026	2027	2028	2029	2030	Total
-81	-80	-78	-77	-75	-74	-72	-71	**-607**

7.4 Skills Supply

The critical skills gaps identified by stakeholders in the tourism and hospitality sector in Co. Wicklow include the following roles:

- **Chefs** (e.g., qualified/trained kitchen staff)
- **Trained front of house staff** (e.g., food and beverage servers)
- **Experienced hospitality professionals** (e.g., middle management, housekeeping, sales)
- **Experienced visitor attraction staff and management** (e.g., trained tour guides, destination, and outdoor recreation managers)
- **Traditional craft skills** (e.g., use of traditional lime mortar instead of cement, scything instead of strimming for wildlife)
- **Production line staff**
- **Drivers** (e.g., part-time & full-time)

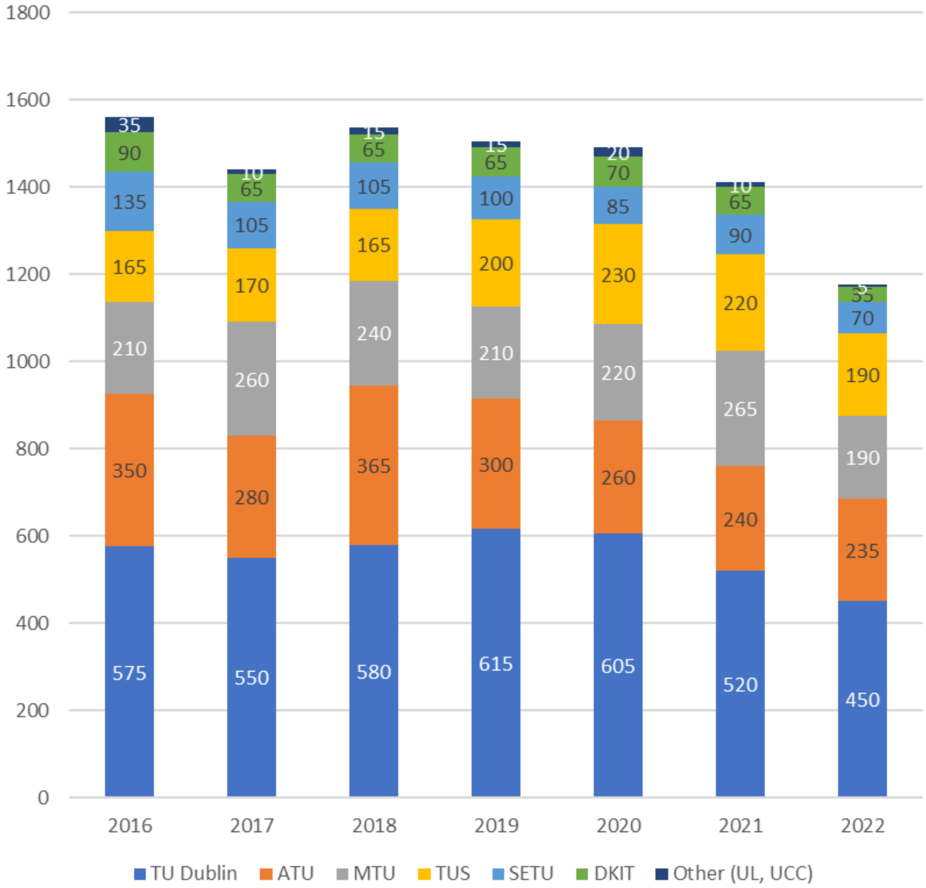
This section summarises the data on HEIs and FET provision of third-level courses and education and training schemes relevant for these occupations. Particular emphasis is laid on the educational attainment of students with Wicklow as their county of origin and the local provision of education and training.

7.4.1 Higher Education Institutions

From 2016 to 2022, the number of graduates in courses relevant to tourism and hospitality[135] has significantly declined across Ireland from 1,560 to 1,175 (-24.7%). As shown in Figure 7.6, a high share of graduates throughout the years came from TU Dublin, with smaller numbers receiving their degrees from ATU, MTU, TUS, SETU, DkIT. Over this period, the share of graduates from HEIs based in the proximity of County Wicklow (i.e., Dublin, Maynooth, Carlow, Waterford) has stayed at approximately 45%.

[135] HEIs data related to programmes categorised under the following ISCED disciplines are considered relevant: (1013) Hotel, restaurant and catering; (1015) Travel, tourism and leisure.

Figure 7.6 HEIs Graduates – Tourism and Hospitality Programmes



Source: Higher Education Authority data.

Table 7.5 shows the number of students originating from Co. Wicklow[136] enrolled in tourism and hospitality degrees between 2018 and 2023. The sharp decrease in the number of students after 2019 may be accounted for by the disruption caused by Covid-19. However, it is also apparent that the student intake has not recovered since then, which seems to reflect the recent (negative) change in attitudes towards the attractiveness of a career in tourism.

Table 7.5: SETU students with Wicklow as their county of origin

	2022-23	2021-22	2020-21	2019-20	2018-19
Tourism & Hospitality Degrees[137]	-	2	2	2	10

Source: Data provided by SETU.

[136] Note that 'students originating from Co. Wicklow' refers to students who have their residence in Co. Wicklow but does not include students who (temporarily) changed their residence to the location of their study. Students are likely to change their residence once commuting to the location of study is not a practical option anymore due to the distance from the original residence.
[137] Degrees included: BSc (Honours) in Tourism and Event Management; Higher Diploma in Business in Tourism Marketing; BA(H) in Tourism Marketing; HC in Business (Tourism).

The declining trend of students in the tourism and hospitality fields mirrors the trend of skilled workers that left the tourism industry during and in the wake of Covid-19. Just as many former hospitality workers who decided to seek jobs in different sectors, it appears that fewer future professionals are considering a career in this sector.

7.4.2 Further Education and Training

With many of positions in the tourism sector not targeted at third-level graduates, a look at graduate numbers from institutions providing post-secondary degrees in the relevant fields of study is needed. This section presents data on courses provided by KWETB at the FET centres in Wicklow, Bray, Baltinglass and Blessington.

KWETB – Tourism, Leisure, and Sports Courses

KWETB offers full time and part time courses in business tourism (including restaurant and bar management as well as reception, event management, airline studies), tour guiding, and sports and recreation. Most courses are full time and delivered over 11 to 52 weeks, leading to a Level 4 or 5 certification on the NFQ.

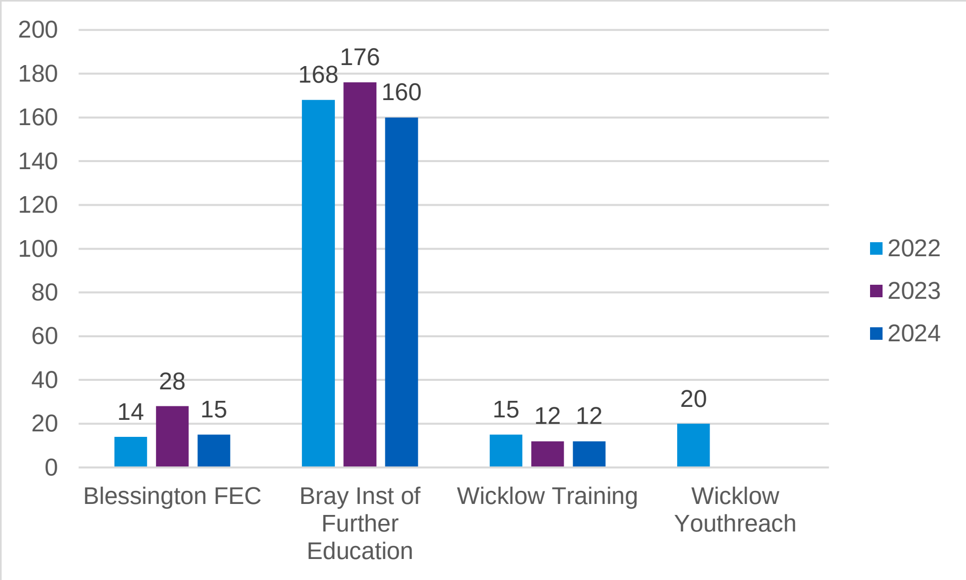
Figure 7.7 shows the distribution of course places across FET centres based on their delivery date start in 2022, 2023, or 2024. The Bray Institute of Further Education (BIFE) delivers most courses across both tourism and sports areas. Between 160 and 180 places are of offer at the BIFE each year, while the capacity of Blessington and Wicklow courses is around 20 places each year. Two traineeships in Track and Trail Guide are also offered at the Baltinglass and Wicklow FETC (with a course capacity of 15 and 12 places respectively). The list of courses with details regarding their title, programme, award level, duration, capacity, and number of filled places is provided in Appendix 11.9.

The overall **course capacity in 2022 and 2023 was 217 and 216 places respectively**, with **187 places planned for 2024**[138]. About 55% (338) of these places are allocated to sports and leisure courses (including tour guiding, football coaching, injury, fitness and personal trainer, and sports management) and 45% (282) to tourism (including hospitality areas, such as restaurant and bar management, event management, and airline studies).

Notably, across the FET centres, **just under half (47%) of places were filled in 2022 and 57% in 2023.** The most popular courses were the Level 5 Certificates in Sports, Recreation and Exercise, Soccer Coaching and Sports Management, and Restaurant and Bar Management delivered at the BIFE. Also popular is the Track and Trail Guide traineeship delivered at the Baltinglass Outdoor Education and Training Centre and Sports and Recreation Level 4 Youthreach course delivered at the Wicklow FETC.

[138] As far as 2024 delivery is concerned, only a small number of planned courses are live on the system as yet and new courses are added on a continual basis in response to need in the area.

Figure 7.7: KWETB Places on Tourism, Leisure, and Sports Courses, 2022-2024



KWETB – Food and Drinks Courses

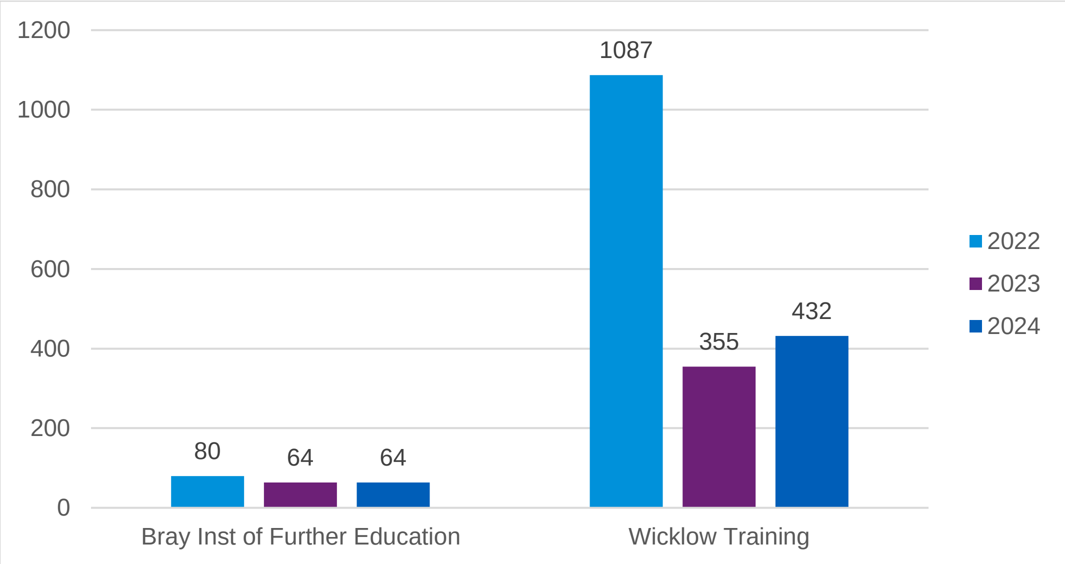
KWETB offers a wide range of full time and part time courses on barista and bartending skills, culinary arts, nutrition and food science at multiple further education centres and culinary establishments in the county, including Bray, Wicklow, Baltinglass, and Avondale. The certifications and types of courses on offer target various levels of employment (e.g., Bridging/Foundation courses, Post Leaving Certificate (PLC), FET Pathways from School, Vocational Training Opportunities Scheme (VTOS), Specific Skills Training (SST), evening training, Skills to Advance courses, and traineeships).

Figure 7.8 shows the distribution of course places across FET centres based on their delivery date start in 2022, 2023, or 2024. The list of courses with more details regarding their title, programme, award level, duration, capacity, and number of filled places is provided in Appendix 11.8. A limited number of full time level 5 and 6 courses are delivered by the BIFE in subjects culinary arts, food science, dietetics, barista, and baking skills. Most of these courses are delivered at the Marine House, the KWETB Centre of Excellence in Hospitality, in a wide range of subjects, including food safety, barista and café skills, bar skills, artisan bread and pastry making, professional vegan cooking and cookery camps.

The overall course capacity was **1,167 places in 2022** (80 places in Bray and 1,087 in Wicklow) and **419 places in 2023** (64 places in Bray and 355 in Wicklow). About **500 places are planned for 2024** (noting that only a small number of planned courses post-2023 are live on the system as of November 2023 and new courses are added on a continual basis in response to need in the area). Notably, **more than half of the places offered by Wicklow Training in both 2022 (53%) and 2023 (57%) were for barista skills courses** (compared to up to 25% each year at the BIFE). All courses already scheduled for 2024 are barista skills courses. These courses are highly popular, often run at capacity, and are comparably shorter than other (accredited) courses, ranging from one day (most courses do not exceed three days) to a maximum of two weeks.

Generally, across the FET centres in Bray and Wicklow, **83.5% of the course places available were filled in 2022 and 2023.** This occupancy rate translated into 975 and 407 places in 2022 and 2023 respectively. Wicklow locations were able to attract more participants, as nearly 87% of available places were filled in 2022 compared to just 41% in Bray. As noted above, the popularity of Wicklow-based courses can also be put down to the high frequency of barista skills courses. Participation rates increased to over 100% in Wicklow and 70% in Bray in 2023 (note, however, the sharp reduction in course capacity in 2023, with only a third of the course places offered in 2023 in Wicklow compared to 2022).

Figure 7.8: KWETB Places on Food and Drinks Courses, 2022-2024



Work-Based Learning – Hospitality

Traineeships

Four culinary, bakery, and chef development traineeships were offered at the Marine House in 2022 with a course capacity of between 8 and 14 places. Although these courses, which amounted to 42 places between them, were running at close capacity in 2022 they were not opened again in 2023 and do not appear to be on offer for 2024 yet.

Apprenticeships

Registrations statistics for hospitality and food apprentices are provided in Table 7.6. Apprenticeships for laboratory analysts and technicians are also included due to their centrality for disciplines such as food science, process development, manufacturing, and food safety, which are expected to play a key role in providing the technical skills needed for the alternative food industry.

KWETB does not deliver any apprenticeship training for the trades included in Table 7.6 in their role as an ETB training provider. Kerry ETB is the coordinating provider for the Commis Chef Apprenticeship, MTU coordinates the Chef de Partie and Sous Chef apprenticeships, and Griffith College coordinates the Bar Manager apprenticeship. The highest number of apprentices registered with KWETB are for the bar manager programme, followed by the commis chef apprenticeship.

Table 7.6: Number of hospitality apprentice registrations by year and trade

APPRENTICESHIP	2020		2021		2022		2023		2024	
	KWETB	IRE	KWETB	IRE	KWETB	IRE	KWETB	IRE	KWETB Live 02/24	IRE Forecast
Bar manager	0	0	0	0	<5	115	5	56	14	72
Chef de Partie	0	5	0	35	0	9	0	16	0	64
Commis Chef	0	16	7	75	17	102	6	73	10	85
Sous Chef	0	<5	0	11	0	<5	0	0	0	48
Total	0	24	7	121	17	227	11	145	24	269

Source: KWETB data provided by the National Apprenticeship Office (NAO). National figures collated from NAO's 2023 annual report.

7.5 Matching Skills Demand and Supply in Tourism and Hospitality

Following a concise summary of current levels of skills supply across both higher and further education and training education for the tourism and hospitality sectors in Co. Wicklow, this section estimates the future provision levels that will be required to meet the skills needs brought about by employment growth forecasted up to 2030.

Several caveats must be made in relation to skills supply projections. Notably, severe data limitations surround the sectoral and geographic employment of third-level graduates in disciplines related to tourism and hospitality. As a result, the calculations underlying the projected higher and further education demand and supply rely on assumptions that increase their uncertainty. However, the scenarios presented help build awareness of the level of education provision required to meet the projected employment for this key sector of interest for Co. Wicklow.

The chapter concludes with a high-level overview of proposed approaches that local stakeholders, including employers and education and training providers, can take to match skills provision with labour market demand.

Summary – Higher Education and FET Skills Supply

Table 7.7 summarises the HEIs graduate pipeline for tourism and hospitality courses in 2022 and FET course participants in 2023. Across Ireland, 1,175 students graduated from HEIs in 2022, with 45% of graduates coming from institutions located in the proximity of County Wicklow (Dublin, Maynooth, Carlow, Waterford).

The FET pipeline generated by the KWETB centres shows a yearly average of 100 people obtaining qualifications in tourism, including hospitality, sports, and leisure. More places are available than learners sign up to, but many courses are not attracting sufficient participants and few courses are running at capacity. This may indicate that the current FET offer might not respond to business needs.

The **lack of apprenticeships and traineeships for chefs** stands out given the critical shortage of these skills and the difficulty businesses across the county have in filling these roles. Similarly, there is a notable shortage of courses for tour guides as well as destination and outdoor recreation managers. However, engagement with education providers highlighted that the absence of these training programmes is explained by the difficulty of filling any places that are made available, as businesses cannot afford to cover the financial costs of these courses or to release staff on study leave for long periods of time. In general, consultees emphasised, long courses, including accredited courses, do not suit employers.

Overall, it is important to note that the offering of FET depends on demand in the area. To increase the offer of education in training in study fields that are characterised by critical skills shortages in the industry, more incentives need to be offered to employers and employees to avail of such courses. Skillnet business networks may provide a more agile response and be better able to fund the local companies' preferred training solutions.

Table 7.7: Higher and Further Education and Training Participants (2023)

Education and Training Providers (HEIs & FET)	Graduates / Course Participants
HEIs (Dublin, Maynooth, Carlow, Waterford)	520[139]
KWETB – Tourism, Leisure, and Sports Courses	122
KWETB – Food and Drinks Courses (2023)	407
Apprenticeships – Hospitality (KWETB Live Registrations as of 15/02/2024)	24

Higher Education Requirements to 2030

Table 7.8 presents the projected employment growth to 2030 under the three employment growth scenarios and the level of higher education provision required to meet each of the resulting skills demand scenarios.

The starting point for identifying the required level of higher education provision is the projected increase to 2030 in the number of employees in tourism and hospitality occupations in County Wicklow under the baseline, high growth, and low growth scenarios (detailed in Section 7.3). To account for losses due to retirement and career changes, an expected job displacement rate of 3.0% annually is applied to the projected annual number of employees. A factor of 30%[140] is then applied to determine the share of third-level graduates out of the total additional employment project to 2030. Thus, the additional higher education skills demand for the 2023-2030 period is projected to be 467 persons in the baseline scenario, 872 persons in the high growth scenario and 86 persons in the low growth scenario.

[139] Most recent data available as of 2022.
[140] Calculated based on the 2023 SOLAS Skills Bulletin data on the share of third level degrees across occupations and their estimated representation in the tourism and hospitality sector.

The scenario-specific projected higher education skills demand 2023-2030 figures are then matched with the required HEIs graduate output for Co. Wicklow. This exercise is based on several assumptions:

1. The 2022 national tourism and hospitality graduate pipeline (1,175 graduates) is kept constant until 2030[141].

2. Taking into account a competitive labour market with professions in media, food processing, and other industries absorbing significant talent from the pool of tourism and hospitality graduates, about 60% of each annual cohort (i.e., 705 graduates) are assumed to commence employment in the sector nationwide.

3. The projected additional higher education skills needs for Co. Wicklow to 2030 are then matched with the national annual graduate pipeline of 705 people to determine how many graduates are required to commence employment in Co. Wicklow under each of the scenarios.

This analysis shows that, between 2023 and 2030, **8.3% of national tourism and hospitality graduates would be required to commence employment in Co. Wicklow annually under the baseline scenario** to match the projected higher education skills demand 2023-2030 (i.e., 467 people). Notably, **under the high growth scenario, 15.5% of national graduates (i.e., 872 people) would need to gain employment in Co. Wicklow** to meet the skills demand projected by high employment growth.

Table 7.8: Projected employment and higher education needs to 2030

Projected Employment	Baseline Scenario	High Growth Scenario	Low Growth Scenario
Tourism and hospitality employment in 2022		4,066	
+ Projected additional employment 2023-2030	+514	+1,686	-607
+ Projected job displacement 2023-30	+1,043	+1,219	+892
= Projected total additional employment 2023-30	+1,557	+2,905	+285
Percentage of persons with third-level degrees		30%	
Projected HE skills demand 2023-2030	**+467**	**+872**	**+86**
Percentage of national HEI graduate pipeline required to match skills demand	**8.3%**	**15.5%**	**1.5%**

FET Requirements to 2030

The projected number of FET course places required to match the scenario-specific projected employment growth to 2030 is determined by taking into account the total number of local and broader provision of FET course places in 2023 (detailed in Table

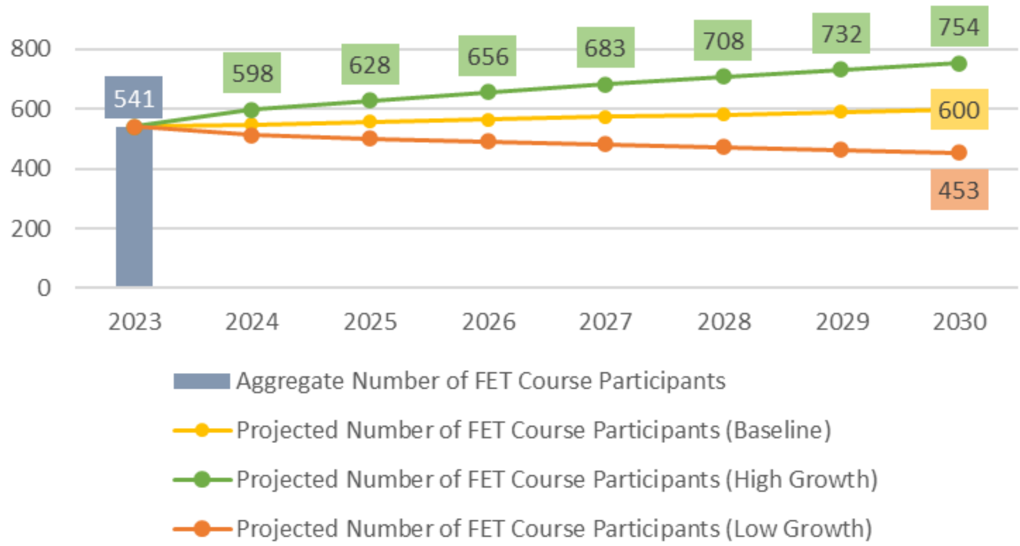
[141] As higher education stakeholders consulted noted, assumptions about how the educational offer might change in the medium and long-term would be too far-reaching.

7.6) and estimating the share of Wicklow participants in these programmes[142]. This step yields a total number of 541 FET entries in 2023, with some participants potentially enrolling in multiple courses. The 541 FET course completions in 2023 correspond to approximately one place for every 8 employees in the sector.

Maintaining the FET uptake at current levels (i.e., 1 course place for every 8 employees) and taking into account employment growth to 2030 means that the number of FET course provision needs to increase to 60 places (+60) offered annually by 2030 under the baseline scenario and 754 places (+213) under the high growth scenario. The annual increase in FET provision required annually to match employment growth under each of the three scenarios is presented in Figure 7.9.

Potential improvements to 2023 levels of FET uptake, such as ensuring that at least a fifth of employees are engaged in lifelong learning each year (i.e., amounting to one course completion by every 5 employees), would require higher numbers of FET course places – namely, 916 places under the baseline scenario and 1,150 course places in the high growth scenario (with 692 places required even under the low growth scenario).

Figure 7.9: Projected FET tourism and hospitality course places, 2024-2030



Matching Skills Supply with Labour Market Demand – Areas for Action

This section puts forward several approaches that can help bridge the labour market demand and employment growth to 2030 with enhanced higher and further education and training provision that responds to industry skills needs.

Engagement of employers in the micro-credential movement

Engaging employers in the restaurant and hospitality industry in Ireland in the micro-credential movement can further assist in closing the current skills gap in the industry.

[142] As precise data are currently unavailable, percentages of enrolled students from Co. Wicklow for individual FET courses are based on the following estimates that are susceptible to significant variation: KWETB Tourism, Leisure and Sports Courses - 40% of regional enrolments (Kildare/Wicklow); Apprenticeships Hospitality and Food – 40% of regional (Kildare/Wicklow) enrolments.

As pointed out in the 2023 report commissioned by the Restaurant & Hospitality Skillnet[143], a collaborative approach is needed to involve key stakeholders such as the Restaurants Association of Ireland (RAI) and the Irish Hotels Federation (IHF) who can play a pivotal role in advocating for and supporting the integration of micro-credentials. Government agencies responsible for tourism and hospitality development, such as Fáilte Ireland, and Skillnet Ireland can provide essential support in **aligning micro-credentials with industry needs**. Local authorities in Co. Wicklow can be valuable partners in facilitating the integration of micro-credentials into training and development programs. By involving these representative groups and collaborating with government bodies at both national and local levels, **the micro-credential movement will gain credibility and address specific regional needs, ensuring that the restaurant and hospitality workforce in County Wicklow remains agile, skilled, and competitive**.

Addressing the feasibility of culinary apprenticeships

The **low provision of apprenticeships and traineeships for chefs** in Wicklow and the Mid-East region stand out given the critical shortage of these skills and the difficulty businesses across the county have in filling these roles. However, engagement with education providers highlighted that the absence of these training programmes is explained by the difficulty of filling any places that are made available, as businesses cannot afford to cover the financial costs of these courses or to release staff on study leave for long periods of time. In general, consultees emphasised, long courses, including accredited courses, do not suit employers.

The lack of demand for apprenticeships is likely determined by the investment required from employers. A 2021 Oireachtas report on the impact of Covid-19 on the hospitality and entertainment sectors found that "**the chef apprenticeship is very cost prohibitive**".[144] According to the Restaurants Association of Ireland, hospitality employers are required to pay the apprentices' college costs, which can be between €3,000 and €6,000. Generally, the new apprenticeship system, which requires employers to pay for both off-the-job and on-the-job elements is "very cost-inefficient for businesses and therefore not fit for purpose". As a result, the Committee recommended a government review of the cost of apprenticeships for chefs that are paid by the hospitality trade given that the State carries the cost for other apprenticeships.

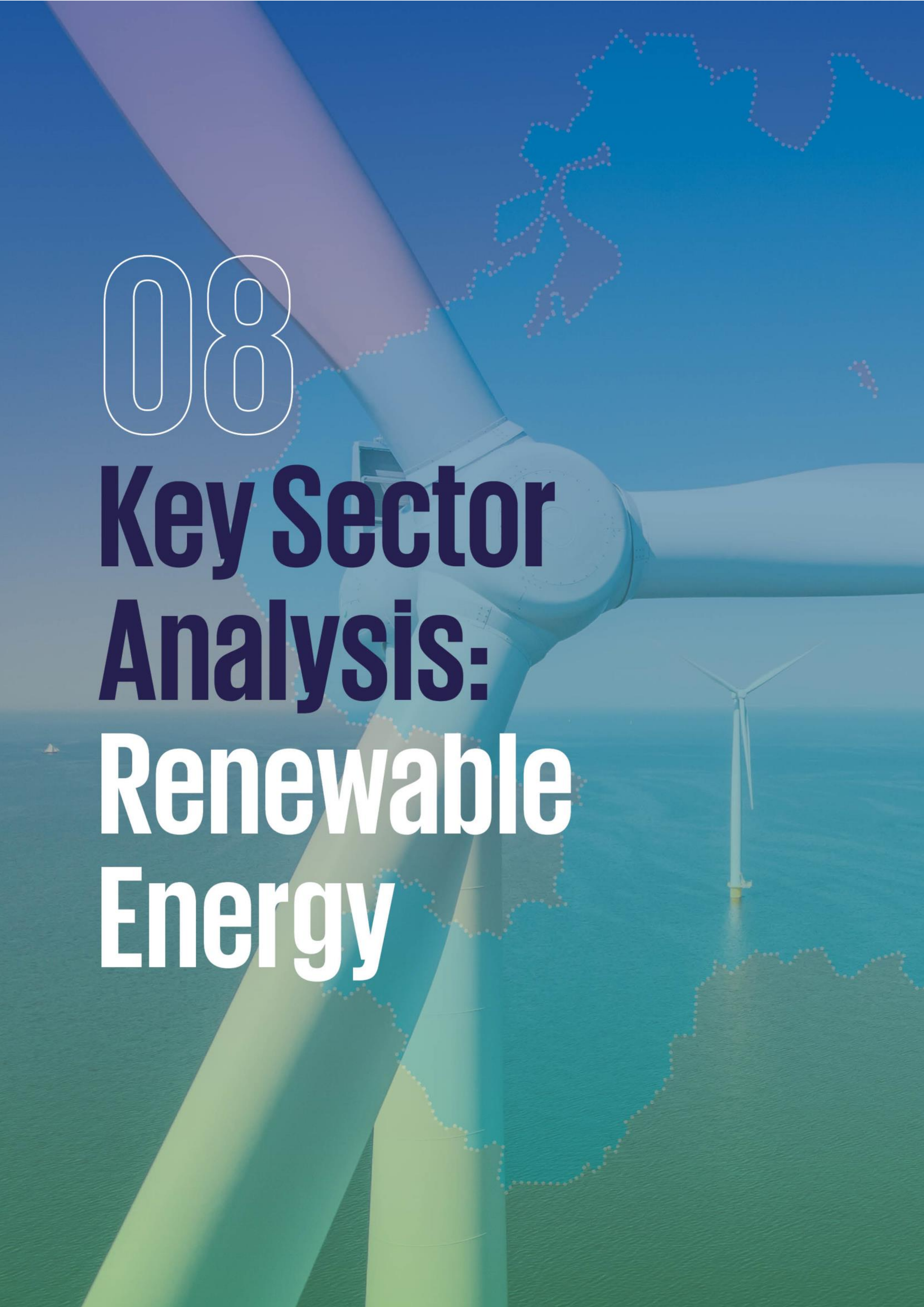
Preparing for new and emerging occupations in tourism and hospitality

To advance plans to develop new and enhanced visitor experiences, such as the treetop walk in Avondale, it is critical to create **training programmes in destination management**. Currently, stakeholders argued, there are hardly any programmes that offer training and upskilling on destination management, commercial management of recreation, or outdoor recreation management. Further collaboration with third level and further education and training providers could explore the creation of new courses or introduction of modules in current tourism-related courses to equip students with the skillsets required by new and emerging occupations in tourism and hospitality, which will help realise the potential of outdoor recreation in Co. Wicklow.

[143] Restaurant & Hospitality Skillnet (2023). The Future of Irish Hospitality – Attracting & Retaining Talent, p. 20. Available at: The-Future-of-Irish-Hospitality-–-Attracting-Retaining-Talent.pdf (skillnetireland.ie).
[144] Joint Committee on Tourism, Culture, Arts, Sport, and Media (2021). *Report on the Impact of Covid-19 on the Hospitality and Entertainment sectors*, p. 26. Available at: 2021-07-21_report (oireachtas.ie).

08

Key Sector Analysis: Renewable Energy



8 Key Sector Analysis: Renewable Energy

8.1 Factors Shaping Demand for Skills

This chapter highlights several **key international trends in renewable energy** sectors that are driving the need for training and upskilling. Irish responses to these trends and training needs are also noted. The overview of trends is followed up by a selection of international **best practices at sub-national level** that showcase how local and regional actors can provide a strategic direction in the identification and supply of green skills. Next, a **review of the Irish national policy landscape and local plans and strategies** draws attention to the training and upskilling needs that are associated with the growth of renewables in Ireland. Particular focus is placed on policies related to offshore renewables, due to the importance of offshore wind projects for County Wicklow. The chapter concludes with an **overview of local industries in Co. Wicklow that are relevant to renewable energy in terms of employment and skills supply**, such as construction and engineering, onshore and offshore wind, port and transport infrastructure, solar energy, bioenergy, and hydroelectric energy.

8.1.1 International Trends and Implications for Workforce and Skills

Energy Security

The number of global crises experienced since the early 2020s – including the COVID-19 pandemic, Russia's invasion of Ukraine and the evolving conflict in the Middle East – has exposed the dangers of overreliance on a narrow number of sources for a nation's energy supply. The global energy crisis has triggered a significant push towards expanding renewable energy. As a result, diversity as the key to energy security is becoming a central part of global policy discourse. Global renewable power capacity is now expected to grow by 2400 GW over the 2022-2027 period, an amount equal to the entire power capacity of China today[145].

While Ireland is currently among the EU countries most dependent on imported fossil fuel, new research indicates that energy dependence could reduce to less than 5% by 2050 with continued and expanded investment and upskilling.[146] **Retrofitting buildings**, **wind energy development** and the **hydrogen economy** have been identified as the specific sectors that will create over 50,000 jobs in the coming decades to support Ireland's transition to a zero-carbon energy sectors. To enable this development, however, a **significant uptake in new skills and re-training** is needed particularly for people moving from coal, peat, oil and gas sectors into renewables sectors such as wind energy, solar power, electrification and retrofitting of buildings.

The European Skills Agenda and the Pact for Skills

As the European Commission put forward the REPowerEU Plan to reduce energy import dependency by accelerating the deployment of renewables, it also needed to consider the skilled workforce needed for such an acceleration. For example, while 1.3 million persons were employed (directly or indirectly) in the EU renewable energy sector in

[145] IEA (2022). *Renewables 2022*. Available from: IEA Annual Report - Renewables 2022.
[146] Skillnet Ireland (2020). *Our Climate Neutral Future: Zeroby50*. Available from: Skillnet-Report-2021.

2020, REPowerEU targets require the creation of over 3.5 million jobs by 2030.[147] The EU response to skills development needs was the **European Skills Agenda**, a five-year plan to support individuals and businesses with upskilling and reskilling. Its twelve flagship actions include supports for strategic national upskilling actions, vocational education and training, skills for life and skills to support the green and digital transitions, a European approach to micro-credentials and a framework for unlocking Member States' and private investments in skills development.

The **Pact for Skills** is a key element of the European Skills Agenda as it seeks to create large-scale public-private multistakeholder partnerships to provide upskilling and reskilling opportunities for employees across all industry sectors. Since the Pact was launched, over 1,000 organisations from EU Member States – including individual businesses, stakeholder partnerships and European umbrella organisations – had joined the Pact for Skills and fourteen large-scale skills partnership were formed.[148] Launched in 2023 and represented by the industry, trade union, education, training and research organisations, the **Partnership for Renewable Energy**[149] has committed to support the skills development process for the new jobs in the sector and contribute to improved upskilling opportunities for the current renewable energy workforce.

Offshore Renewable Energy (ORE)

The **Skills Partnership for Offshore Renewable Energy** was launched in 2021 with the ambition to *"[stimulate] a dedicated training offer, to promote re-skilling and up-skilling of the workforce, availability of training itineraries which intersect with other sectors, suitable preparation for new staff and measures for attracting talent".*[150] Bridging the skills gap in the ORE is seen as key to meeting the ambitious targets set in the EU strategy on offshore renewable energy, such as generating at least 60 GW of offshore wind and 1 GW of ocean energy by 2030, and 300 GW and 40 GW, respectively, by 2050[151]. Consequently, the actions put forward by the Partnership for its first five years of activity include the setup of an **observatory on training needs and offer in the ORE sector**, **promoting life-long learning and careers in ORE** and **building durable skills partnerships for the ORE sector**.

While Ireland's geographical position provides opportunities to become a significant source of European offshore wind energy, its ambition to reach at least 5GW of offshore wind production by 2030 and 37GW by 2050 is already under threat, as the current installed capacity is still 25 MW (i.e., Arklow Bank Phase 1 wind farm). From a skill and resources perspective, the absence of a pre-existing oil and gas industry poses further challenges for the development of specific skills required by the offshore wind sector.

Some of the key hurdles for offshore wind development highlighted by new research that focused on **risks and challenges in the planning process** include the complexities of

[147] Directorate-General for Energy (2022). *In focus: Employment in EU's renewable energy sector.* Available from: In focus: Employment in EU's renewable energy sector (europa.eu).
[148] European Commission (2022). *Pact for Skills Annual Report 2022. Progress on upskilling and reskilling the European workforce*. Available from: Pact for Skills Annual Report 2022 - V3 - Final (1).pdf (europa.eu)
[149] Directorate-General for Energy (2023). *Pact for Skills: Launch of large-scale renewable energy skills partnership*. Available from: Pact for Skills (europa.eu).
[150] Skills Partnership for Offshore Renewable Energy (2021). *Position Paper: Towards a Pact for Skills in the ORE*. Available from: Renewables (europa.eu).
[151] EU strategy on offshore renewable energy (COM(2020)741). Available from: eur-lex.europa.eu.

the consenting and judicial review system.[152] This report also noted **the scarcity of resources and skilled personnel in key state consenting** agencies and government departments, such as An Bord Pleanála, the Maritime Regulator (MARA), local authorities, and in the private sector. A **list of skills shortages that focused on the skills required over the lifetime of an ORE project** included marine planners, archaeologists, ecologists, and mammal biologists; ocean, acoustical, vibration and geotechnical engineers; fisheries, shipping, and military specialists; and botanists, zoologists, and avian ecologists.

An in-depth supply chain analysis[153] of the offshore wind activities likely to be conducted in Ireland showed that, despite the limited direct experience in offshore wind, most parts of the Irish supply chain offer the capacity needed to deliver such projects. Specifically, this analysis showed that **significant opportunities lie in project development and project management, tower manufacture, onshore infrastructure and in the OMS phase**. A high local content can also be derived from project categories such as **development and consenting services**, which are typically conducted locally.

Similarly, on the skills supply side, Ireland can rely on many parallel industries to supply a labour force with skills that are applicable to offshore wind – including onshore wind, engineering and maritime sectors, project management and other managerial and professional sectors. However, Ireland does face "significant challenge to both develop the skills unique to offshore wind and facilitate skills transfer".[154] Such skills shortages apply across the main phases of ORE projects, including development and project management (e.g., management skills and senior roles, electrical and engineering skills), manufacturing (e.g., skilled trade workers, offshore qualifications, and construction management), and the operations, maintenance and service phase (e.g., maritime training, health and safety expertise, and electrical skills). [155]

Energy Storage

As the targets for the decarbonisation of national power systems become more ambitious, a flexible energy system is needed to adapt to energy supply and demand across different timescales. The need for a sustainable and effective power system makes energy storage a key element in the transition to net zero and the development of this sector comes along with new jobs that require specific skills.

While the Irish energy storage sector is at an early stage of development, a new report exploring its investment and employment potential found that **the total value chain employment could near 5,000 new jobs by 2035.**[156] The report also highlighted a range of skill gaps that prevent Irish organisations from delivering on their energy storage ambitions. These gaps include the insufficient knowledge base, shortage of experienced power system and renewable design engineers, administrative difficulties in hiring qualified staff from abroad, and the lack of demonstration units and training possibilities in Ireland. Consequently, the development of a range of **new commercial, technical,**

[152] Clark Hill (2023). Offshore Renewable Energy Projects in Ireland. Available from: OWE Briefing Document - July 2023 (irishlegal.com).
[153] Green Tech Skillnet, Wind Energy Ireland, BVG Associates (2024). *Building our Potential Ireland's Offshore Wind Skills and Talent Needs.* Available from: web-bvg-report-jan-2024.
[154] Ibid., p. 5.
[155] Ibid., pp. 5-6.
[156] Green Tech Skillnet, Energy Storage Ireland and KPMG (2023). *Charged Horizons: Exploring the Energy Storage Landscape and Workforce Potential in Ireland.* Available at: Charged-Horizons-Report.

and regulatory skills was recommended to enable the fulfilment of career opportunities in the energy storage sector.

8.1.2 International Best Practices for Green Skills Development

The importance of the offshore wind projects for Wicklow and the Mid-East cannot be underestimated. Out of the seven wind projects awarded a maritime area consent (MAC) in Ireland as of mid-2023, four are located off the Wicklow coast (Arklow I, Arklow II, Codling and Dublin Array) and make up more than two thirds of Ireland's planned capacity (i.e., 2.95 GW out of 4.28 GW). As emphasised in Section 2.3, numerous regional and local strategies and development plans include actions related to the establishment of marine education and training facilities in the Mid-East. For example, the Mid-East Regional Enterprise Plan proposes the development of a purpose-built marine training facility at Wicklow County Campus to complement other types of training for the ORE sector such as technician courses and apprenticeships, which could also be offered on site. Thus, there is a noticeable effort on the part of local and regional authorities to take an active role in facilitating the supply of green skills.

Although skills development for green jobs typically takes place as part of overall government policy, research has shown that regional and local government authorities, driven by their intimate understanding of the needs of communities and businesses, can drive this process from the bottom upwards. Policy gaps at national level, can be sometimes filled in this way. However, for these approaches to be effective, a long-term strategic perspective needs to be adopted, with appropriate attention given to broader policy coordination and equity considerations.[157]

Examples of actions at subnational level have been highlighted in several reports (ILO 2019, CEDEFOP 2018, IEA 2022). Table 8.1 presents a selection of these case studies, focusing on the **institutional set-ups that enable local and regional authorities to provide a strategic direction in the identification and supply of green skills**. These examples of focused investment for the future transition showcase how state bodies can influence education to upskill their population and reskill for specific sector relevance.

Table 8.1: International best practice: examples of local and regional training provision for green skills

State / Region / Local Municipality	Sub-national actions enabling the supply of green skills
Australia / Victoria	Several state governments and city councils in Australia have taken steps to adopt their own emissions reduction targets and strategies to manage emissions. For example, the **Victorian government** has made a range of heavy investments in research and innovation, secondary school education and vocational education and training (VET) to prepare its workforce with the right skills, training, and pathways to deliver the green jobs.

[157] ILO (2019). *Skills for a Greener Future: A Global View* (p. 34). Available from: Skills for a greener future: A global view (ilo.org).

State / Region / Local Municipality	Sub-national actions enabling the supply of green skills
	Investments at **secondary school level** are made through incorporating electrotechnology, engineering and laboratory skills into their school curricula. New **Tech Schools** are also created to deliver "immersive, practical and future career-linked STEM education that students need to succeed in areas such as renewable energy, robotics and advanced manufacturing"[158]. From a reskilling angle, taking into account that Victoria will be the home of Australia's first offshore wind farms, a significant investment is made into the **Wind Worker Training Centres** to provide reskilling of existing workers for the development of onshore and offshore wind technologies. Additional investments are made into the creation of a Centre of Training Excellence to coordinate and accredit course for apprentices and a Clean Energy Fund to train workers with critical green skills.
Denmark / Samsø	In 1997, the small island of **Samsø** won a competition for islands to become 100% self-sufficient with local renewable energy sources within ten years. By 2007, the island achieved the 100% target for electricity, with 70% of heat coming from clean energy. **The success of this project was put down entirely to local involvement.** The island is coordinated by a consortium of local stakeholders, which includes the local energy agency, the local development office, the municipality of Samsø and the municipally owned energy company. A Samsø Energy Academy was also established in 2007 as a resource centre on renewable energies that is partially funded by Samsø municipality's profits from offshore wind power.[159] Another local initiative for green skills development in Denmark is the **Vocational Education Centre South (EUC Syd)**, which features green skills education in all study programmes. The Centre has also created a special adult education centre for construction workers focused on the use of energy-saving tools and materials.
Spain / Barcelona	Barcelona's journey to carbon neutrality is founded on the idea of climate justice. The local government initiative **Energy Advice Points** was established with the goal of upgrading the energy efficiency of the most vulnerable households and includes a **clean energy skills component**. The programme offers training to unemployed people and give them jobs as energy advisors for six months. Thus, in addition to immediate assistance, the unemployed get the training, professional qualifications, and experience to gain employment as energy consultants after completing the programme.

[158] Victoria State Government (2023). *Training The Renewable Energy Workforce of The Future*. Available from: Training The Renewable Energy Workforce Of The Future.
[159] Renewables Networking Platform. *100% renewable energy island*. Available at: DK-Samsø.

State / Region / Local Municipality	Sub-national actions enabling the supply of green skills
UK / Liverpool City Region	The development strategy of the Liverpool City Region **Local Enterprise Partnership (LEP)** focuses on the development of skills for the green economy. To meet the demand for skills in offshore wind and **respond to the needs of local companies manufacturing products used by offshore wind**, the Partnership has coordinated skills training in higher education colleges. Among other actions targeting at upskilling the local workforce, LEP has also created a strategy to fill a skill gap reported by Scottish Power that focused on upskilling the company's existing staff and training new engineers.
Republic of Korea	A Green Growth Committee was established to coordinate and support both policies for the low-carbon economy and skills development for green jobs. In this context, 16 local government bodies have established their own regional green growth plans and created regional green growth committees.
Sources: CEDEFOP (2019)[160], ILO (2019), IEA (2022)[161].	

8.1.3 Renewable Energy Policies and Implications for Green Skills Development

To secure industry and market confidence and attract investment in local manufacturing facilities, a strong regulatory framework that demonstrates commitment to offshore wind and other renewable energy areas is needed. However, investment is only likely to be pursued in areas with a solid knowledge and skills base. Therefore, ambitious commitments and sectoral climate actions targets should not underestimate the role of skills development measures to ensure the availability of relevant skills for various sectors. To ensure the development of a sustainable skills and workforce pipeline for renewable energy sectors across Ireland, it is critical that the legislative framework commits the government and other relevant stakeholders – including national and local authorities, but also private sector actors – to support planning and interventions for the development of specific skillsets and the transferability of existing skills to renewable energy sectors.

This section reviews some of the main national and local policies linked to renewable energy sectors focusing on the extent to which they are linked or even mention employment and skills policies, research and innovation, and collaborations with further and higher education institutions.

[160] Cedefop (2019). *Skills for green jobs: 2018 update. European synthesis report*. Luxembourg: Publications Office. Cedefop reference series; No 109. Available at: Skills for green jobs: 2018 update.
[161] International Energy Agency (2022). *Skills Development and Inclusivity for Clean Energy Transitions*. Available at: Skills Development and Inclusivity for Clean Energy Transitions – Analysis - IEA.

National Strategies and Plans

The Climate Action Plan 2024[162] (CAP24) is the third annual update of Ireland's Climate Action Plan, which was initially launched in 2019. In addition to refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings, CAP 24 highlights the importance of developing and retaining home-grown talent, while also attracting research and entrepreneurial talent from abroad to tackle climate change.

The Plan draws attention to the challenges facing the electricity sector in meeting its renewable energy generation targets, which include increasing renewable energy generation to supply 80% of demand by 2030 and reaching 9GW of onshore wind, 8GW of solar and at least 5GW of offshore wind. **Meeting these targets will require major investment in education and reskilling of the energy and construction workforce in order to meet demands across the different energy sectors involved**. The demand for upskilling and additional labour resources will also be evident in the need for engineers, technicians and project managers with expertise in renewable energy technologies.

The **Local Authority Climate Action Charter** is a key action in the Climate Action Plan aimed at ensuring that every local authority embeds decarbonisation, sustainable development and climate resilience into every aspect of their work. Skills development, training or upskilling actions are not mentioned in this context.

The ***National Marine Planning Framework***[163] (NMPF), Ireland's first statutory maritime spatial plan adopted in 2021, outlines the government's proposed approach to managing Ireland's maritime activities – including offshore renewable energy – to ensure the sustainable use of marine resources up to 2040. The Framework sets out the overarching marine planning policies (OMPPs) that apply to all marine activities and sectoral marine planning policies (SMMPs) to guide decision-makers in assessing or dealing with specific proposals, including ORE, ports development etc.

OMPPs are grouped according to environmental, economic, and social objectives and policies. **Skills development is singled out in the context of social policies, which state the need to diversify skills to enable employment in emerging marine industries.** Moreover, skills development in marine sectors is highlighted as crucial to ensuring the sustainability of rural and island communities as well as improving social benefits and economic resilience of said communities. The need to provide increased education and skills support is further emphasised under both planning and social benefits policies.

Within sector-specific marine planning policies, **skills development is highlighted in relation to the socioeconomic benefits that offshore renewable energy can bring to peripheral coastal communities**, which also include employment, income opportunities, and transferable technology. Skills development and transferability is also mentioned in the context of **interactions with the petroleum sector**, which can play a role in helping to reduce costs of developing offshore renewable projects through the

[162] Department of the Environment, Climate and Communications (2021). *Climate Action Plan 2024.* Available at: https://www.gov.ie/en/publication/79659-climate-action-plan-2024/ .
[163] Department of Housing, Local Government and Heritage (2021). *National Marine Planning Framework*. Available at: gov - National Marine Planning Framework (www.gov.ie).

application of skills and knowhow of marine operations. The beneficial synergies between decommissioning activity and the emerging offshore wind sector are also noted.

White Paper on Enterprise 2022-2030[164] outlines the vision and commitments for enterprise development in Ireland until 2030 and places decarbonisation at the centre of enterprise policy. The Paper aims to enable Irish-based enterprise to succeed through sustainability, innovation and productivity, delivering rewarding jobs and livelihoods and enhancing Ireland's competitiveness for both domestic and foreign enterprises. Notably, the Paper highlights the degree of **skills mismatch within the Irish labour market that has also been underpinned by the digital and green transition in the economy**, which require consistent upskilling and reskilling of staff. The Paper emphasises the need to adapt to this scenario by ensuring **enterprise involvement in the creation and delivery of training programmes for employees**.

The ***Policy Statement on the Framework for Phase Two Offshore Wind***[165] sets out Ireland's plans to install 5GW of offshore wind generation by 2030. The commitments laid out to achieve this target included working with industry to develop a revised Offshore Renewable Energy Development Plan and a long-term future Offshore Renewables Development Strategy. From a skills development perspective, the Statement viewed to create a specific **workforce action plan to foster the acquisition of new skills** required to maximise the unique opportunity ORE presents for Ireland.

The **National Industrial Strategy for Offshore Wind** is due to be published in the first half of 2024. The objective of the strategy is to ensure that Ireland maximises the economic benefits associated with government targets to deliver 37GW of offshore wind by 2050. The core themes addressed in the Strategy relate to leveraging opportunities in the domestic and international supply chains and developing a globally recognised OWE RDI ecosystem in Ireland that promotes collaboration between SMEs, multinationals and Further and Higher Education institutes. Notably, one of the RD&I actions for which the views of stakeholders were sought concerned the **establishment of an applied Centre of Excellence that can act as a globally recognised innovation centre in offshore wind**. If this action were included in the National Strategy, it would present the County Council and other local stakeholders with the opportunity to advocate locating the Centre of Excellence within the County – potentially within the Rathnew Campus - as a base for the offshore wind sector on Ireland's East coast.

A **Future Framework for Offshore Wind Energy** that outlines how Ireland will meet the target of 37GW of offshore wind by 2050, which is currently being developed by the Offshore Wind Delivery Taskforce (OWDT), is also planned for publication in 2024. Opportunities for skills development are a key component of the ORE system. To meet and support planning for training and upskilling in the ORE, **a workstream under the OWDT has established an Expert Advisory Group with members from further and higher education, government departments, agencies and industry, to consider skills and workforce requirements**. The main goal of the workstream is to identify the

[164] Department of Enterprise, Trade and Employment (2022). *White Paper on Enterprise 2022 – 2030.* Available at: white-paper-on-enterprise-2022-2030.pdf

[165] Department of the Environment, Climate and Communications (2023). *Accelerating Ireland's Offshore Energy Programme Policy Statement on the Framework for Phase Two Offshore Wind*. Available at: gov - Policy Statement on the Framework for Phase Two Offshore Wind (www.gov.ie).

skills and workforce requirements for the development of offshore wind, and to establish a sustainable workforce and skills pipeline.

Local Plans and Strategies

Wicklow County Council recognises the need to reduce dependence on fossil fuels for energy generation and supports the development of renewable resources. **The Wicklow County Development Plan (CDP) 2022-2028** notes that Wicklow County Council signed up to the Charter in December 2019 committing Wicklow to include policies on climate action. Within the CDP, the ten Strategic County Outcomes (SCOs) are informed by the National Planning Framework, the Regional Spatial and Economic Strategy. SCO 10 Education and Skills recognises the necessity to improve the link between education and skills opportunities in the county and intends to do this by further developing Wicklow's County Campus Centre of Excellence as a facility for training and education. Focusing on economic development, the CDP states that there is opportunities for employment and skills development through the development of Operations and Maintenance bases in the maritime sector and highlights the potential to develop synergy between the off-shore wind and industry and third level institutes.

The need to support the development of renewable energy and a low energy future for Wicklow is part of the high-level goals included in the **LECP 2023-2029**. Investment in the Arklow Bank II, Codling Wind Park and Dublin Array offshore wind farm offers huge potential for job creation in planning, development and construction and hundreds of long-term employment opportunities in operations and maintenance. For example, in 2030, 6.3GW of domestic offshore wind would support approximately 12,000 direct and indirect jobs in the domestic supply chain with a Gross Value Add (GVA) impact of circa €2billion for the period 2020-2029[166]. The new LECP for County Wicklow, which is currently being prepared, places a key focus on the area of renewable energy.

The Maritime Strategic Review for County Wicklow[167] highlights the strategic and economic importance of the county's coastline, which presents an opportunity for Wicklow to leverage its coastline for increased economic development with the emergence of the Blue Economy[168] in recent years. The strategy identifies the potential development of Wicklow's Blue Economy and management of the coast between 2019 and 2030 and focuses on five main activities: Shipping, Fishing, Renewable Energy, Marine Tourism & Leisure and Aquaculture. The relevant aspects of policy on an EU, national and regional level relating to marine space are analysed to guide Wicklow County Council in creating a marine policy for the county.

Wicklow's LECP Objective in 'Realising the potential benefits of the county's maritime assets' aligns with the Maritime Strategic Review in aiming to build on and develop the Marine and Coastal Tourism Industry. Wicklow has a long maritime tradition with leisure events such as the Wicklow Regatta and the Round Ireland Yacht race which starts and ends in Wicklow Port.

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[166] *Cork Harbour 2025. Ready to Float – Offshore Wind*. Available at: Cork-Harbour-2025.
[167] Gavin & Doherty Geosolutions (2019). *Maritime Strategic Review for County Wicklow*.
[168] The European Commission produces annual economic reports on the 'blue economy', which is defined by the World Bank as ''sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of ocean ecosystem''.

8.1.4 Sectoral Landscape in County Wicklow

Wicklow is increasingly becoming a renewable energy hub, establishing the necessary infrastructure and research environment for the technological advancement of smart grids, and optimised storage provides significant potential for the towns and research facilities in the county. The county is also at the centre of the significant expansion of onshore and offshore wind energy in Ireland. However, **any further expansion of the sector requires a significant number of additional professionals** particularly needed in the fields of (1) engineering, (2) environment sciences and humanities, (3) construction and technical, (4) legal and professional services, and (5) transport and logistics.[169]

Renewable energy is not listed as a separate category of employment in official statistics as it cuts across several industries. The EGFSN (2021) report estimates that approximately 3,400 full-time equivalent (FTE) jobs in offshore wind, onshore wind and grid-scale solar energy existed in Ireland in 2020. However, a regional breakdown of these figures is not provided. Of the FTE jobs in Ireland that pertain to renewable energy, the report estimates that currently approximately 75% are in construction and engineering (including technicians and technical professionals for installation services), 10% in legal and professional services, 10% in environment and science, and 5% in transport and logistics and operations. The construction and engineering sector is thus strongly aligned with the renewable energy sector in terms of employment supply.

Construction and Engineering

Construction (including manufacturing) and engineering are regarded as two of the most significant fields for labour expansion in relation to the expansion of the renewable energies and particularly the offshore wind industry in County Wicklow. These sectors are characterised by the presence of a broad range of homegrown and subsidiaries of international companies, including building and civil engineering, property construction, machine industry, plastic injection moulding, semiconductor production, industrial packaging, timber frames, shipbuilding, industrial mobility, electronics, deep retrofit renovations, steel wire ropes, biodiesel manufacturing, waste metal recycling, and food packaging. The proximity and ease of access to both Dublin and Rosslare Harbour for production chains and sales is a major advantage for the sector in the county.

Onshore Wind Energy

Currently, Co. Wicklow has five onshore wind parks: Raheenleagh Wind Farm in Arklow MD with an installed capacity of 35.2 MW; Cronelea Wind Farm in Baltinglass MD with an installed capacity of 5.0 MW; and three smaller wind farms are located in Baltinglass MD. Irish companies are looking at the potential to expand onshore wind energy projects as a small-to-medium-scale/ localised approach towards increasing the share of green energy. Although concrete onshore wind farm projects have not been announced at the time of writing, opportunities for new wind farms may be identified particularly on the western and eastern foothills of the Wicklow Mountains that are not within NPWS Restricted Areas.

[169] EGFSN (2021). *Skills for Zero Carbon: The Demand for Renewable Energy, Residential Retrofit and Electric Vehicle Deployment Skills to 2030*. Available from: Skills for Zero Carbon - Skillnet Ireland.

Offshore Wind Energy

Located off the coast of Arklow in Co. Wicklow, **Arklow Bank Wind Park** was Ireland's first offshore wind park that started operation in 2004 at 25 MW capacity. In December 2022, the Department for the Environment, Climate and Communications initiated Phase One of delivery for Ireland's offshore wind energy plans. The Maritime Area Consents were issued for seven offshore renewable energy projects in Ireland. Within the coming decade, **three additional wind parks are scheduled to be built or are proposed to be fully or partly off the Wicklow coast.**

Codling Wind Park is a wind farm currently in planning stage. It is expected to be located approximately 13-22 kilometres off the Wicklow coast, between Greystones and Wicklow Town. Planned to enter operation in 2027, it will have a capacity of 1,450 MW. This would increase Ireland's installed wind power capacity by approximately one third and exceed the size of the currently largest wind park in Ireland (Galway Wind Park, 174 MW) by approximately eight times. As of July 2023, the second stage of public consultations have been completed. The project aims to provide seventy-five full time long term jobs.

Dublin Array Offshore Wind Farm is currently in planning stage and expected to enter operation in 2028. Located approximately 10 km off the coast of Dublin and Wicklow (east of Bray), the project will have an installed capacity of up to 843 MW. As of July 2023, the second stage of public consultations has been completed. The wind farm is expected to create 1,100 jobs during the construction phase and 80 direct and 160 indirect full-time jobs during the operational phase.

Arklow Bank Wind Park 2 is an 800 MW addition to the currently existing offshore wind park expected to be operational by 2028/29. As of July 2023, the first stage of public consultations has been completed with planning application to be submitted by late 2023/ early 2024. Arklow Bank Wind Park plans to create eighty full time jobs to support the operation of the wind farm.

Shelmalere Offshore Wind Farm at the border of Co. Wicklow and Co. Wexford is another proposed offshore wind park with an approximate 1,000 MW capacity. Realisation of Shelmalere, however, is expected after 2030.

With a combined capacity of 3850-4150 MW, the planned and proposed wind parks are expected to cover more than half of Ireland's electricity needs. As noted in the National Planning Framework, the "development of offshore renewable energy is critically dependent on the development of enabling infrastructure, including grid facilities to bring the energy ashore and connect to major sources of energy demand."[170]

The offshore projects show the huge job growth potential over the next decade with the Irish government setting a target in the Climate Action Plan which is to have a total generation capacity of at least 5 GW of offshore wind by 2030 and an additional 2 GW offshore wind for green hydrogen production in Ireland as a whole.

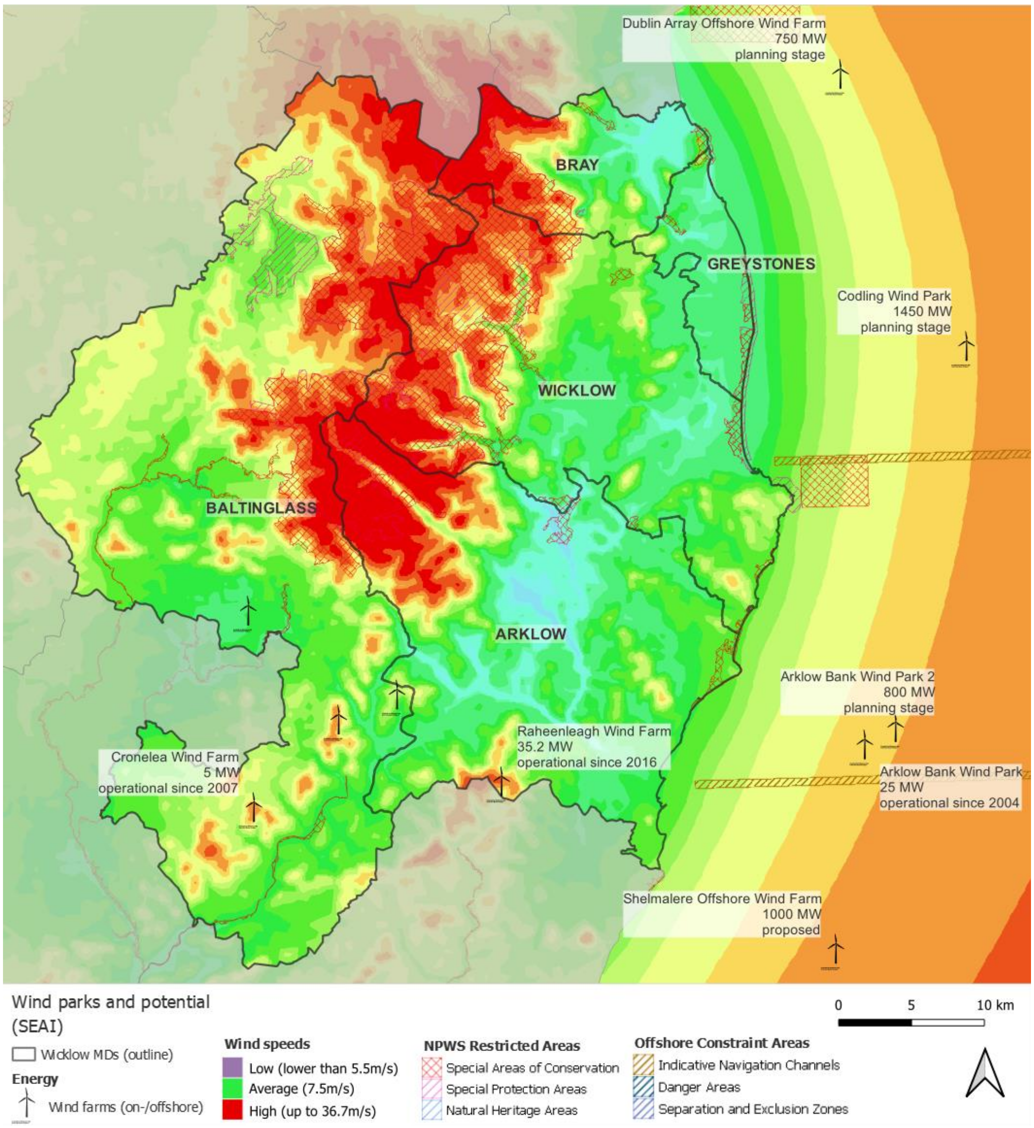
Nevertheless, recent reports highlight the skills development needs and workforce shortages within engineering, financial services, and logistics, which are crucial to the

[170] *Project Ireland 2040: National Planning Framework*, p.104.

offshore wind sector and wider renewable energy industry[171]. To address these shortages, engagement between industry employers and educational institutions, funding training and introducing new apprenticeships in skills related to off-shore wind and working with higher education bodies to introduce new degree fields of study in areas linked to off-shore renewables is seen as essential.

The ambitious plans to scale up offshore wind energy off the coast of Co. Wicklow is currently at risk of setback due to the macroeconomic conditions in the European/ global renewable energy sector and general supply-line shortages experienced by major companies operating in the sector.[172]

Figure 8.1 Wind parks and potentials in County Wicklow and the Irish Sea



[171] Carbon Trust and GreenTech Skillnet (2020). *Harnessing Our Potential: Investment and jobs in Ireland's offshore wind industry* (p. 102). Available at: final-harnessing-our-potential-report-may-2020.
[172] Financial Times (2023). *The struggles of the offshore wind industry.* Available at: https://www.ft.com/content/00e8af58-f2b4-4d91-9c6e-bd2045c22c20

Port/Transport Infrastructure

For the installation, operation and maintenance of offshore wind farms, access to harbour facilities and connected land transport infrastructure is key. Locating the necessary infrastructure for constructing and servicing offshore wind power infrastructure will be a focal point within the coming years. While Wicklow Town has been identified as a preferred O&M location for Codling Wind Park[173], Arklow has been considered for Arklow Bank Wind Park 2. Both projects are associated 'with potential benefits to the local area including training, retraining and apprenticeship opportunities'[174].

Among the county's three harbours, Wicklow earns the majority of the income (82% compared to 16% for Arklow and 2% for Greystones). The largest income stream for Wicklow harbour is 'Shipping / Cargo Operations' which comes in at 73% with Lease/Rent bringing in 20% and Fishing, Leisure Users and Visiting Fishing Vessels all in the single digits. Being a smaller port and not benefitting from Shipping/Cargo Operations, Arklow obtains the majority of its income stream from Fishing, Lease/Rent and Commercial Dues. Given the limitations pointed out in the *National Port Study* in relation to Co. Wicklow harbours[175], significant investments will need to be carried out to elevate Arklow and Wicklow harbours before they can carry out roles in relation to renewable energy infrastructure.

Solar energy

Currently, there are four solar parks in Co. Wicklow, with the 2022 opened Millvale Solar Fam near Ashford being by far the largest with a generation capacity of 8 MW from 33,600 solar panels on 25 hectares. Up to 2030, the Irish government is planning to generate up to 8,000 MW from solar. Currently, the only major solar farm in planning phase is the Three Castles Solar Farm near Blessington (19 MW), which is expected to become operational in 2025. Taking into consideration the Wicklow geography and the resulting irradiation levels and tilt angles, the eastern portions of the county, as well as the coastline have more favourable conditions for harnessing solar power potentials.

Bioenergy

Harnessing energy from agricultural sources in Co. Wicklow has lower potential than in most other counties given that the agricultural sector plays a less significant role. As shown in Figure 8.3, conditions for growing biomass crops are particularly favourable in the low-laying regions to either side of the Wicklow mountains, with the highest land suitability near the coastline between Greystones and Arklow but also in the southern portions of Baltinglass MD. The potential for gas production from silage is particularly strong in the southern portions of Baltinglass MD as well as along the border with County Carlow and County Kildare, including the areas around Baltinglass Town. The potential for gas production from slurry has relatively little potential, mostly around Baltinglass Town. As bioenergy is currently harnessed primarily on a small-to-medium-scale level and in the absence of strategic guidance on county and regional level, employment in relation to bioenergy is not further quantified within the skills demand and supply analysis for Co. Wicklow.

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173 Development - Codling Wind Park.
174 CDG/Wind Energy Ireland (2022). *National Port Study*, p.25. Available at: final-national-ports-study.pdf.
175 Idem., p.42

Figure 8.2 Solar farms and further potential in Co. Wicklow and the Irish Sea

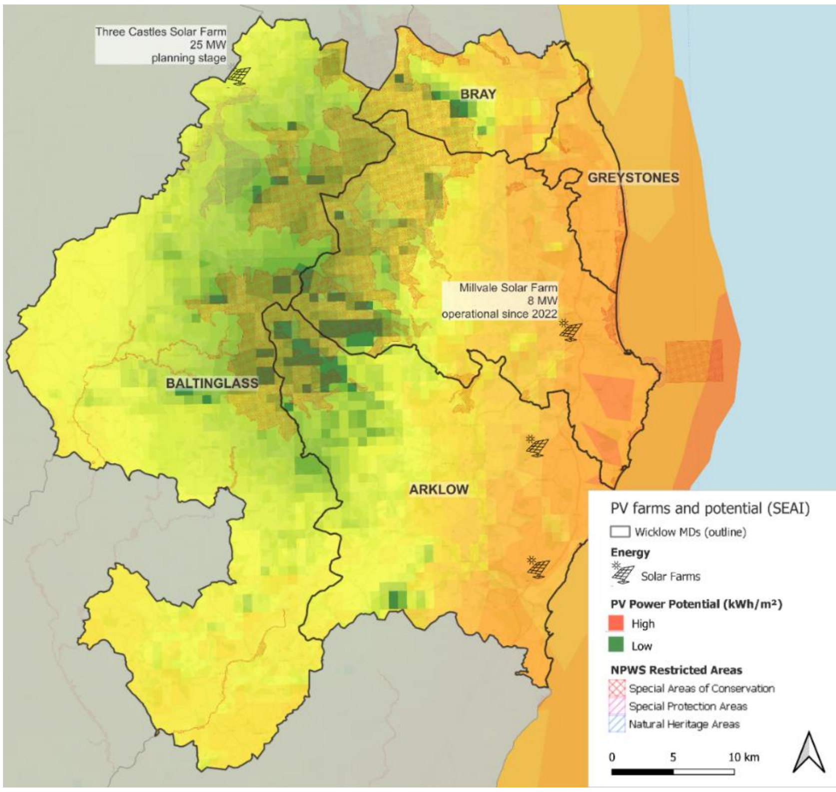
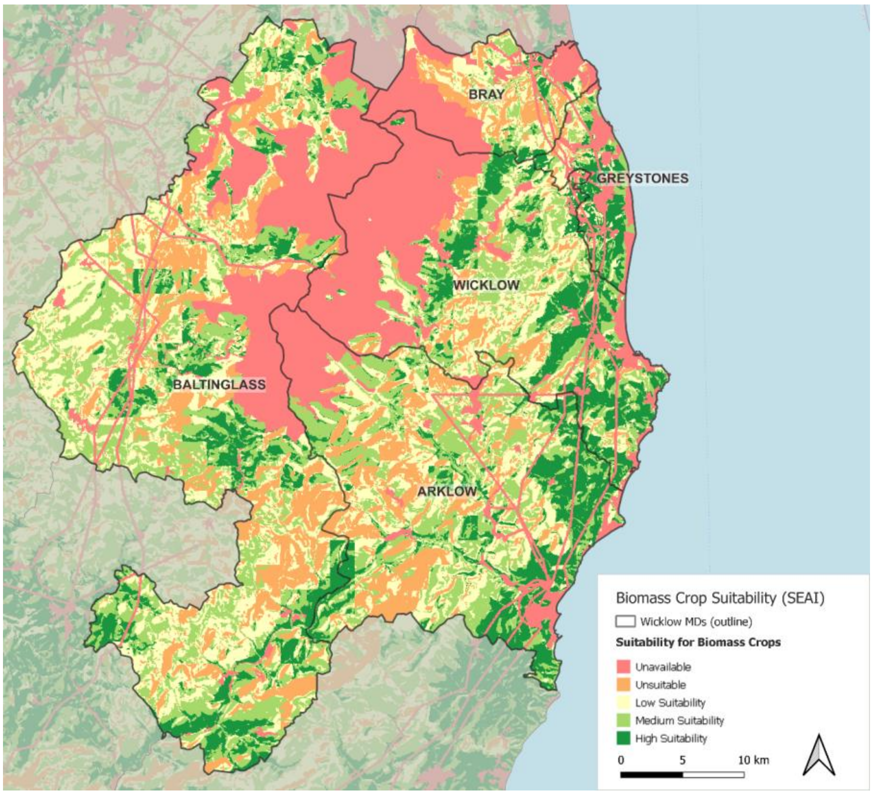


Figure 8.3 Biomass Crop Suitability in Co. Wicklow



Hydroelectric energy

Hydro-electric power plays a minor role in the electricity market in Ireland, representing 1.3% of electricity generation in 2021. Currently, **Turlough Hill Power Station** at Lough Nahanagan with an installed capacity of 292 MW and **Poulaphouca Power Station** at Poulaphouca Reservoir with an installed capacity of 30 MW are the only power stations for hydroelectricity in Co. Wicklow. The potential of additional hydroelectric power stations are considered to be limited compared to the potential available particularly with regard to wind and solar.

8.2 Stakeholder Views

Themes	
Biggest challenges	*Skills and Workforce Shortages* One of the biggest challenges highlighted by consultees in the renewable energy sector, particularly offshore wind, is that **Ireland lags far behind other nations in terms of the availability of skills** that are required to implement successful offshore wind projects. For example, Denmark and the UK had oil and gas industries and were able to tap into that market for employees. **Ireland does not have that pre-existing market to tap into and is required to expand its call for employees outside of Ireland to fill the skills gap.** Filling this skills gap, even when recruiting from abroad, is extremely difficult as the renewable and offshore wind sector is an extremely competitive, emerging industry that requires significant resources, and attracting enough workers is challenging. Placing skilled workers in **solar farm jobs** is proving challenging as well, with the large solar farm near Rathnew reportedly struggling to fill positions. *Grid Connections* According to consultees, **Ireland is "going through a national challenge when it comes to securing electricity grid connections"**. Few projects can meet grid connections conditions in Ireland as there is a higher bar to establishing data centres than in Europe, which are also needed to enable renewables. Together with **grid infrastructure**, **sustainability**, **the security of supply** and **grid citizenship** emerge as key challenges for renewable energy, including offshore wind. *Policy Frameworks for Renewable Energy* **A policy framework is needed for micro-grid integration** and to enable hybrid grid connections. There is a **delay in policy delivery** – including hybrid connections and offshore wind – that prevents the growth of this sector in Ireland. – "*Without a national framework put in place, we will not be able to deliver the 2030/2050 goals.*" Consultees also pointed out that **policies are also lacking in skills development areas**. For example, the minimum qualification requirements for skippers of vessels have not yet been published. Similarly, there is no

Themes	
	legislation for the minimum qualifications needed by the crew of transfer vessels. The lack of clarity around the qualifications/certifications and skills required in many marine occupations are some of the key challenges for training the local workforce highlighted by third-level education providers. Moreover, according to interviewees, trained workforce is also leaving Ireland at the moment for the UK/Norwegian markets because there are currently not enough renewables jobs in Ireland. – *"Courses are there. Accreditations are there. Jobs aren't".*
Supports for the sector	A view put forward in the renewables space was that that there could be **more support for the use of local content by offshore wind developers** to deliver the projects that are being developed off the Wicklow coast. – *"Concern for Ireland is that we don't have a maturity level in relation to these [renewables] industries. [There is a risk that] companies will come in, get what they need and then leave. [Then we will be] left with the inevitable downturn. As you plan, grant permissions, there needs to be a portion that your trained workforce must be from Ireland. They need to be careful. Once these turbines are operational their security and maintenance are key."* The establishment of a **centre of excellence for renewable energy** in Wicklow, similar to the UK's ORE Catapult Centre, was put forward as a key initiative that would support business-led innovation while also helping enterprises to deliver the necessary training for employees and establish a mechanism for collaboration amongst industry players. Another support stakeholders identified as crucial is the availability to **guidelines to approaching specific government agencies**, which would enable efficient project management, timing, and joint communication.
Skills shortages	While efforts are being made to develop skills and train the workforce, the **absence of dedicated programs for maritime engineering and offshore wind** has led to a scarcity of professionals within the industry. Roundtable participants highlighted specific **skill shortages in engineering and technical roles**. Part of this is due to the lack of a pre-existing market in the oil and gas industry which can be tapped into for those skills. Other countries in Europe, namely Denmark and the UK, have fully developed oil and gas industries which allows them to tap into a market of qualified workers. Other stakeholders also pointed to the **lack of courses and degrees in offshore and renewable energy** more broadly which has resulted in a lack of new graduates coming into the sector. Consultees also pointed to the need to overcome the **shortage of high voltage engineers**, which is key if Ireland is to meet its 2030/2050 climate change goals.
Skills development needs	Consultees noted that addressing the challenges around the lack of a graduate pipeline and skilled workforce in the renewables area more generally falls under the central government responsibility rather than local authorities. Suggestion for areas of action included:

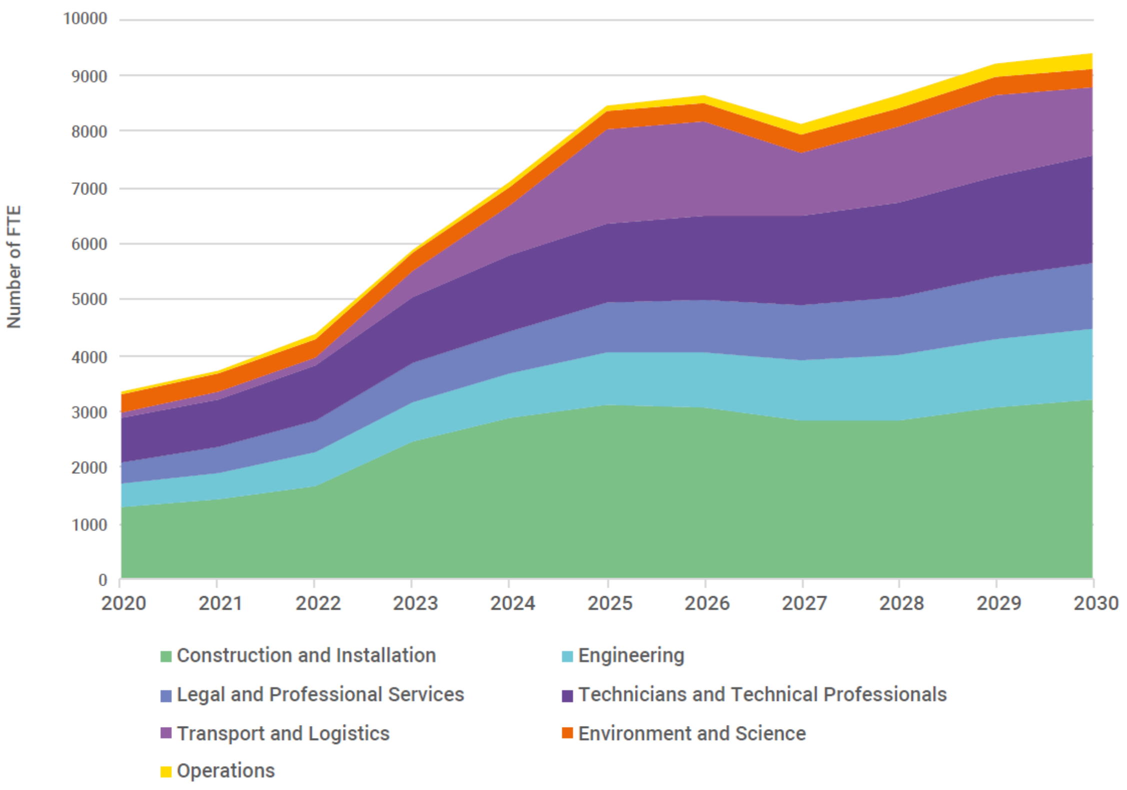
Themes	
	• The need for a "grassroots analysis" in terms of **analysing college curricula to identify gaps in teaching renewable energy** as well as singling out colleges that are not offering courses on renewables. • Changing attitudes towards **apprenticeships**, which are essential for training the workforce in the renewables sectors, where power systems are in a continuous evolution. ETBs should lead the way in education and training for apprentices and technicians. • **Training for managing and operating data centres careers** is currently missing and could take the form of a diploma or two-year course. • **Reskilling the fishermen** and associated industries. • **Higher skill level research and innovation courses** need to be developed in technological universities on hydrocarbon research. • Help **local businesses** understand how existing industries and skills can avail of opportunities in the offshore sector.
Strategic / collaborative actions	One of the major challenges to developing skills in the industry is **the lack of joined up** thinking, as companies/organisations tend to be siloed in their expertise and work on projects. The establishment of a centre of excellence, such as the ORE Catapult Centre, could also ease the gap in collaboration and joined up thinking. **Opportunities for collaboration and knowledge sharing** were also highlighted along with the siloed nature of knowledge and innovation within the sector. The gap in collaboration, it was argued, points toward the need for a mechanism or centralized system where development projects can be shared and opportunities for collaboration established. Many interviewees pointed out the need for **early intervention actions** in secondary and primary schools, potentially led by the Regional Skills Fora, to highlight opportunities and potential careers in the renewable energy sector that go beyond the engineering/technical paths. – *"We need a national brand, such as the Wild Atlantic Way type of campaign, to appeal to students to get them into the industry and enhance awareness of the wide range of jobs that are available and not limited to those at sea or offshore work".* A targeted campaign is also needed to attract trained workforce back to Ireland. – *"We have been training people for the last five years and sending them abroad. We need a huge campaign to attract them back."* Similarly, stakeholders pointed out the need to **highlight opportunities to transition away from careers that may be phased out due to the changing economy into the renewables space**, along with the tools and training resources that are made available to those who choose this path. Other collaborative actions mentioned in the stakeholder engagement process highlight the opportunity for **collaboration within maritime-related industries** such as aquaculture, tourism, and leisure activities that will need different types of skillsets.

8.3 Projected Skills Demand

The green energy transition is associated with a growth target for the renewable energy sector to create 'at least 25,000 jobs'[176] across Ireland. Notably, no regional breakdown of this target is provided. If distributed equally across the country, approximately 750 jobs could be supplied in Co. Wicklow (based on the county's current share of Ireland's labour force). According to the labour demand modelled in the EGFSN (2021) report, approximately 9,500 FTE jobs could be added in the sector in Ireland overall until 2030 (see Figure 8.4). Approximately 300 FTE jobs would be created in Co. Wicklow if these figures were broken down as described above.[177] Considering the important role assigned to offshore wind energy off the Wicklow coast over the coming decade, there is huge potential for the county to supply a share of sector-related jobs that is greater that the county's share of the national labour force.

The highest job growth in absolute figures is expected to be in construction and engineering (including technicians and technical professionals for installation services), while the highest job growth relative to the current number of jobs (in Ireland) is expected to be in transport and logistics, mainly due to the construction/installation phase of new sites. When differentiating by energy source, solar energy is more labour-intensive than onshore and offshore wind energy, providing an opportunity for more job growth. For hydroelectric energy a lower labour intensity, similar to offshore wind energy is assumed.

Figure 8.4: Modelled Labour Demand from Renewable Energy, 2021-2030



[176] Skillnet Ireland (2021). *Our Climate Neutral Future by 50*, p.25.
[177] Expert Group on Future Skills Needs (2021). *Skills for Zero Carbon*, p.85.

Co. Wicklow Employment Modelling Assumptions

Current employment figures in the renewable energy sector for Co. Wicklow are estimated using the methodology employed in the labour demand modelled in the EGFSN (2021) report. *Skills for Zero Carbon* uses relative labour intensity figures, expressed by 'jobs per MW' for solar, onshore, and offshore wind for operations and management of the farm/plant.[178] Applying these figures to existing solar, onshore, and offshore wind farms, as well as hydroelectric energy plants in the Wicklow area results in the model allocating 95 FTE jobs in the county in 2023. This number shows the nascent state of the renewable energy sector in Co. Wicklow. However, the estimated number of FTE jobs may also suffer from a high margin of error due to a highly unreliable data landscape. Additionally, several areas are not included in this figure:

- FTE jobs in planning and installation and operations and maintenance for residential retrofits and electrical vehicle deployment (EV maintenance and charging infrastructure) are excluded due to the absence of Wicklow-specific target figures.

- FTE jobs in the planning and installation as well as the operations and maintenance of bioenergy infrastructure are excluded due to the lack information about current employment figures and concrete national and local strategic planning in this field.

Potential 2030 employment figures in the renewable energy sector take into account labour force trends, characteristics of the renewable energy workforce, and sectoral trends. Three diverging scenarios are derived based on the potential variability of these parameters. However, due to limitations in the current sectoral employment landscape, the volatility in recent employment trends, and the methodological difficulty to project forward from low numbers, the scenarios presented below should be interpreted with the caveat related to the high degree of uncertainty they are characterised by.

2030 employment figures in the renewable energy sector are calculated from the 2023 FTE jobs and the relative labour intensity of proposed projects and projects currently under construction. FTE jobs for 2024-30 are then added onto the 2023 figure from the year when the projects are scheduled for operation.[179]. The following qualifications are made:

- FTE jobs in planning and installation are excluded in the baseline and low growth scenarios due to their volatile/transient and non-local nature. Services in planning and installation are frequently contracted elsewhere, often internationally. Although it is desirable for planning and installation jobs to be based in Co. Wicklow, the current absence of established headquarters or R&D departments of large energy businesses in the county is a significant constraint to this ambition. For the high growth scenario, it is assumed that 5% of all planning and installation jobs are based in Co. Wicklow.

[178] The methodology outlined is based on the modelled labour demand in the report by the EGFSN (2021), Skills *for Zero Carbon* report. The full-time job equivalents for operations and maintenance are provided in Appendix 11.1.
[179] The methodology outlined is based on the modelled labour demand in the EGFSN (2021) *Skills for Zero Carbon* report. The Full-time job equivalents for Operations & Management are provided in Appendix 11.1.

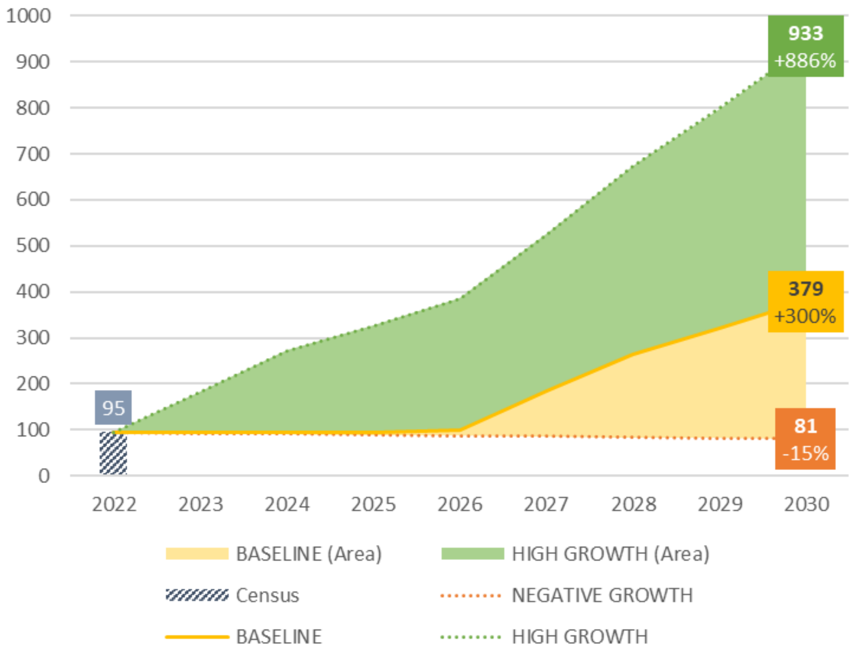
- FTE jobs related to storage and connectivity infrastructure are excluded in the baseline and low growth scenarios due to the high competitiveness between regions for such infrastructure and the absence of concrete local strategic planning in this field.[180] For the high growth scenario, it is assumed that 25% of FTE jobs related to the required storage capacity for the (planned) installed renewable energy in Co. Wicklow are based in Co. Wicklow.

Table 8.2 shows the number of Wicklow residents employed in the renewable energy sector in 2022 and forecasted employment figures for 2030 under three scenarios of constant, high, and low growth employment expectations. Employment trends for the three scenarios are shown in Figure 8.5, while projected annual growth estimates are displayed in Figure 8.6.

Table 8.2: Scenarios for Projected Skills Demand in Renewable Energy

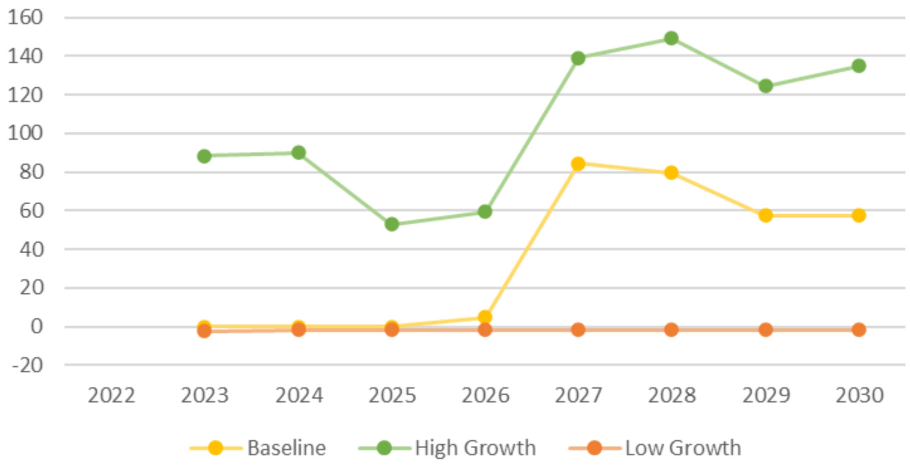
Employment 2022 (Census 2022) || % Labour Market	Scenario	Forecasted Employment 2030	Forecasted Growth 2022-2030
	High Growth	933 1.1%	+886.4%
95 0.1%	**Baseline**	379 0.4%	+300.4%
	Low Growth	81 0.1%	-14.9%

Figure 8.5: Renewable energy – Projected Employment Trends, 2022-2030



180 Consultation with authors of GreenTech Skillnet/ Energy Storage Ireland/ KPMG (2023): *Charged Horizons: Exploring the Energy Storage Landscape and Workforce Potential in Ireland*.

Figure 8.6: Renewable energy – Past & Projected Absolute Employment Growth, 2022-2030



Baseline Scenario

Under the **baseline scenario**, renewable energy employment levels are expected to increase from 0.1 to 0.4% of the county labour force. Underlying assumptions for this development include:

- Completion of proposed projects and projects under construction as per timeline.
- Limited establishment of infrastructure in coastal towns and provision of business incentives to attract enterprises engaged in operations and maintenance activities for the offshore wind industry. As a result, all FTE jobs in relation to the operations and maintenance of existing energy generation facilities and 50% of FTE jobs in relation to the operations and maintenance of planned energy generation facilities are based in Co. Wicklow.
- Absence of infrastructure for carrying out planning and installation of new energy generation infrastructure. As a result, no FTE jobs in relation to planning and installation will be based in Co. Wicklow.
- No diversification in renewables as further onshore wind and solar parks are not planned, and no development of Co. Wicklow as a knowledge hub for renewable energy as dedicated education facility/ coordination and planning centre is not established.
- Absence of renewable energy storage and connectivity infrastructure. As a result, no FTE jobs in relation to storage and connectivity are established in Co. Wicklow.
- A decreasing level of competitiveness for Co. Wicklow (and Dublin) compared to other counties and countries due to high cost of living and limited access to housing and transport.

The projected growth of the labour force implies an increase in the number of employees in renewable energy occupation by 300% (amounting to 284 persons) reaching 379 persons in 2030. The yearly workforce change over the 2023-2030 period is shown in Table 8.3.

Table 8.3: Baseline scenario – Yearly change in the number of people employed in renewable energy industries

2023	2024	2025	2026	2027	2028	2029	2030	Total
+/-0	+/-0	+/-0	+5	+85	+80	+58	+58	**+284**

High Growth Scenario

The **high growth scenario** assumes that employment in renewable energy will increase significantly by 886% (839 persons) and will reach 1.1% of the county's labour force in 2030. The yearly workforce change over the 2023-2030 period is shown in Table 8.4.

Table 8.4: High growth scenario – Yearly change in the number of people employed in renewable energy industries

2023	2024	2025	2026	2027	2028	2029	2030	Total
+88	+90	+53	+59	+139	+149	+124	+135	**+839**

Underlying assumptions for the high growth scenario include:

- Completion of proposed projects and projects under construction as per timeline.
- Significant establishment of infrastructure in coastal towns and provision of business incentives to attract enterprises engaged in operations and maintenance activities for the offshore wind industry. As a result, all FTE jobs in relation to the operations and maintenance of existing and planned energy generation facilities are based in Co. Wicklow.
- Limited establishment of infrastructure for carrying out planning and installation of new energy generation infrastructure. As a result, 5% of FTE jobs in relation to the planning and installation will be based in Co. Wicklow.
- Limited diversification in renewables as further onshore wind and solar parks are proposed, and development of Co. Wicklow as a knowledge hub for renewable energy as dedicated education facility/ coordination and planning centre is established.
- Limited establishment of renewable energy storage and connectivity infrastructure. As a result, 25% of FTE jobs in relation to storage and connectivity are established in Co. Wicklow based on a storage requirement of 72% of renewable energy capacity and a ratio of 0.55FTE jobs per MW.[181]
- Improvements in infrastructure around housing and transport ensure continued competitiveness of County Wicklow compared to other counties and countries.

[181] A storage requirement of 72% of generated energy is calculated based on figures provided for the Modest Transition scenario outlined in GreenTech Skillnet/ Energy Storage Ireland/ KPMG (2023): *Charged Horizons: Exploring the Energy Storage Landscape and Workforce Potential in Ireland*, pp.19-20.

Low Growth Scenario

The **low growth scenario** assumes that the number of people employed in renewable energy will decrease by 14.9% (amounting to a decline of 14 employees), falling to 1.1% of the county's labour force by 2030.[182] The yearly workforce change over the 2023-2030 period is shown in Table 8.5. Underlying assumptions for this scenario include:

- Deferral or cancellation of the proposed projects and projects under construction.
- Absence of infrastructure in coastal towns and provision of business incentives to attract enterprises engaged in operations and maintenance activities for the offshore wind industry. As a result, no FTE jobs in relation to the operations and maintenance of existing and planned energy generation facilities are based in Co. Wicklow.
- Absence of infrastructure for carrying out planning and installation of new energy generation infrastructure. As a result, no FTE jobs in relation to the planning and installation will be based in Co. Wicklow.
- No diversification in renewables as further onshore wind and solar parks are not planned, and no development of Co. Wicklow as a knowledge hub for renewable energy as dedicated education facility/ coordination and planning centre is not established.
- Absence of renewable energy storage and connectivity infrastructure. As a result, no FTE jobs in relation to storage and connectivity are established in Co. Wicklow.
- A decreasing level of competitiveness of County Wicklow (and Dublin) compared to other counties/ regions and countries due to high cost of living, limited access to housing and transport, and a failure to establish additional accommodation and tourist attractions.
- A lack of persons with the desired levels of qualification and a mismatch in upskilling opportunities provided.

Table 8.5: Low growth scenario – Yearly change in the number of people employed in renewable energy industries

2023	2024	2025	2026	2027	2028	2029	2030	Total
-2	-2	-2	-2	-2	-2	-2	-2	**-14**[183]

The trends described above carry a high degree of uncertainty as they exclude a number of sector-relevant employment sources. Further opportunities to create FTE jobs can arise from the establishment of headquarters or branches/ subsidiaries of energy firms with a significant employee base particularly related to planning and installation. Large

[182] For the Low Growth scenario, a degressive growth factor (0.98) is applied to the 2022 sector's share in the labour force (i.e., expecting the sector to decrease its share in the labour force by 2% annually) to project the 2022 employment numbers from the Occupations forward.
[183] Aggregate 2023-2030 figure may deviate from annual figures as a result of rounding.

untapped potentials also lie in grid infrastructure and storage facilities fed by the electricity generated through the renewables in and near Co. Wicklow.

Conversely, risks may arise from delays or cancellations of wind and solar projects, or the failure to attract enterprises in the servicing of wind and solar parks. Increased labour demand in the light of wind and solar projects potentially risks competing with labour demand for domestic retrofit, heat pumps and solar PV. Similar to other key sectors, growth might be hampered due to a potentially decreasing level of competitiveness for Co. Wicklow compared to other counties as a result of high cost of living and limited access to housing and transport. While labour demand for electric vehicle repair specifically can be expected to grow, vehicle maintenance and repair overall is projected to decrease nationally by 8% (2020-2030) as lower-maintenance electric vehicles gradually replace internal combustion engine vehicles.[184]

8.4 Skills Supply

The critical skills gaps identified through engagement with stakeholders representing the offshore wind energy sector in County Wicklow included the following roles:

- Offshore wind service technicians
- Engineers
- Geophysicists
- Marine biologists
- Logistics professionals
- Skilled workers (fabricators, welder fitters etc.)
- Offshore wind farm design (integrated load analysis, detailed designers for substructure design, technical engineers for development and design etc.)
- Instructors, administration, safety consultants (environment and marine particularly)

As noted in the Skills for Zero Carbon report (GFSN 2021), the **new and emerging renewable energy occupations currently lack direct and obvious routes for new entrants**, which acts as a barrier to stable supply. Moreover, the overall shortage in construction occupations and the shortage of skilled people with relevant experience in engineering occupations constrain activity in the renewable energy sector and require additional training to prepare for working in an offshore environment.

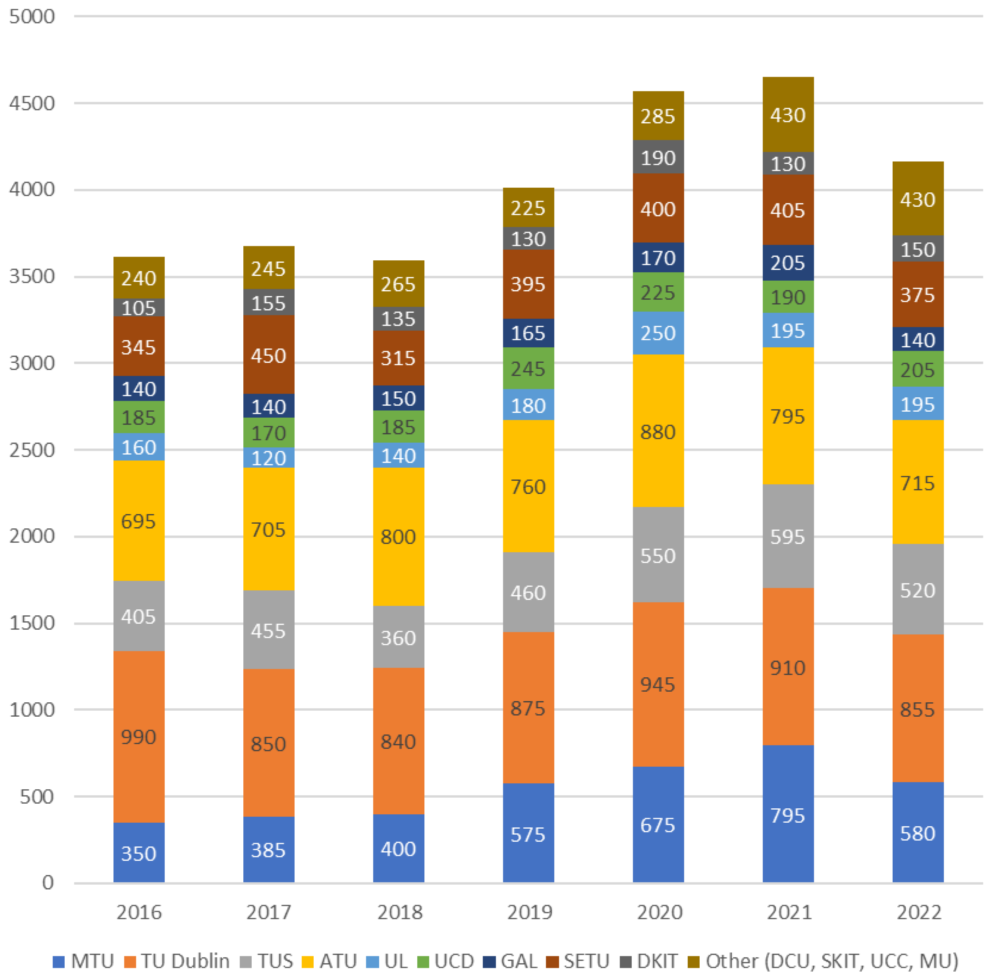
This section summarises the data on HEIs and FET provision of third-level courses and education and training schemes relevant for these occupations. Particular emphasis is laid on the educational attainment of students with Wicklow as their county of origin and the local provision of education and training.

[184] Expert Group on Future Skills Needs (2021). *Skills for Zero Carbon*, p.86.

8.4.1 Higher Education Institutions

Figure 8.7 shows that, across Ireland, the number of graduates in fields related to **engineering, construction, manufacturing, environment, and energy**[185] has increased from 3,615 in 2016 to 4,650 in 2021 before decreasing to 4,165 in 2022, yielding a total increase from 2016 to 2022 of 15.2%. Significant shares of graduates typically come from TU Dublin and ATU, with smaller numbers receiving their degrees from MTU, TUS, SETU, UCD, UL, GAL, SKIT, UCC, MU, and TCD. Over this period, the share of graduates from HEIs based in the wider catchment of Co. Wicklow (Dublin, Maynooth, Carlow, Waterford) has slightly fallen from 47% to 42% as universities in the west of Ireland, particularly Atlantic TU, Munster TU and TU Shannon have significantly broadened their portfolios.

Figure 8.7: HEIs Graduates –Programmes Relevant to Renewable Energy



Source: Higher Education Authority data.

[185] HEIs data related to programmes categorised under the following ISCED disciplines are considered relevant: (0710) Engineering and engineering trades not further defined or elsewhere classified; (0712) Environmental protection technology; (0713) Electricity and energy; (0714) Electronics and automation; (0715) Mechanics and metal trades; (0732) Building and civil engineering.

Table 8.6 shows the number of students originating from Co. Wicklow[186] enrolled in apprenticeships and energy-related degrees at SETU between 2018 and 2023. Despite a decrease in the number of apprentices post-2019, when the delivery of these programmes was disrupted by COVID-19 lockdowns, constant increases in the number of apprentices can be noticed every year, with a significant increase in the 2022-2023 academic year.

Similarly, the number of students enrolled in energy and sustainability degrees also seems to be increasing – though less dramatically – in the recent period. By comparison, the total number of registrations for the *Bachelor of Science in Energy Management* at the Wicklow County Campus in Rathnew in 2022/2023 reached 26. However, even if Wicklow could tap into the full graduate pipeline for its labour market, the numbers would still be insufficient to meet labour demand over the medium term.

Table 8.6: SETU students (Wicklow origin) enrolled in energy & sustainability courses

	2022-2023	2021-2022	2020-2021	2019-2020	2018-2019
Apprenticeships[187]	87	26	25	17	35
Energy & Sustainability Degrees[188]	7	4	5	10	3

Source: Data provided by SETU.

Three courses at Level 9 in areas relevant to offshore wind for the 2023-2024 academic year received funding from the 2023 Human Capital Initiative Pillar 1 call for 152 places[189]. These programmes include a Certificate in Leadership in Offshore Renewable Energy at Technological University of the Shannon and a Postgraduate Certificate in Offshore Renewable Energy and an Offshore Wind and Ocean Energy Conversion Course, both at University College Cork.

8.4.2 Further Education and Training

Short Courses

Green Tech Skillnet supports the workforce development needs of businesses in various renewable energy areas, including onshore and offshore wind energy, asset management, electricity grid and market policies, planning systems, and community engagement. These subsidised, industry-led programmes are aimed at both employees

[186] 'Students originating from Co. Wicklow' refers to students who have their residence in Co. Wicklow. It does not include students who (temporarily) changed their residence to the location of their study.
[187] The numbers of apprentices may be undercounted due to the timing of reporting of student numbers in March which can exclude apprentices who attend Waterford or Carlow in Term 3. Over the time period capture in Table 8.6, between 50% and 70% of the programmes were electrical apprenticeships, with the remaining split between motor, plumbing, bricklaying, carpentry and joinery, and electrical instrumentation.
[188] Degrees included: Bachelor of Science in Energy Management (Buildings); Bachelor of Engineering (Honours) in Sustainable Civil Engineering; Certificate in Energy Sustainability; Certificate in Managing Sustainability in Transport and Logistics Management.
[189] Department of Environment, Climate and Communications (2024). *Draft Offshore Renewable Energy Future Framework Policy Statement*, p. 46 Available at: Draft Future Framework.

and unemployed people and include upskilling and reskilling courses in areas such as offshore development and consenting, managing safely for wind power, and energy storage systems. Previously known as Wind Skillnet and promoted by Wind Energy Ireland (WEI), the representative body for the Irish wind industry, the network has successfully engaged 1,149 trainees over 2,050 training days equating to approximately 25% of those employed within the wind industry in Ireland.

As of 2023, the network has 747 members based in Ireland and 21 companies from abroad. Wicklow is represented by 18 businesses, which is comparable to the membership of other counties from the mid-East (see Table 8.7). The majority of Wicklow businesses are micro and small organisations. In 2023, 11 Wicklow-based member companies participated in training programmes (see Table 8.8). However, as the data on member companies' locations does not always align with the trainees' locations, 29 trainees residing in Wicklow enrolled in various courses in 2023 resulting in 45 total entries (as some trainees took multiple courses). This is because some Wicklow trainees work for member companies located in Dublin, Wexford, Kildare, and other counties.

Table 8.7: Green Tech Skillnet (GTS) Membership and Learners

GTS Members	Total	Members Engaged in Training (2023)	Trainees
Ireland	747	476	
Abroad	21	3	
Wicklow	18	11	29
Kildare	25	17	65
Louth	16	5	14
Meath	24	15	30

Source: Green Tech Skillnet.

Table 8.8: Wicklow Companies Engaged in Green Tech Skillnet Training

Average No. Employees	Wicklow (All)	Wicklow (2023)
0-9	9	4
10-49	5	3
50-250	2	2
250+	2	2
Total	**18**	**11**

Source: Green Tech Skillnet.

Work Placement Programmes

Traineeships

The Green Tech Skillnet (GTS) offers two Skills Connect programmes with a work placement component. Work in Wind is aimed at new entrants in the wind energy industry as a foundation that can help prepare participants for relevant work placements and projects in the wind energy sector. The course includes four weeks of online training in areas that include renewable policy, renewable planning, grid transmission and energy market trading, community engagement and sustainability. The course concludes with work placement with host companies.

Wind Turbine Technician is the second free training and work placement programme offered by GTS. Aimed at people with electrical, mechanical, or engineering backgrounds, the course provides full Global Wind Organisation (GWO) certified safety and technical training over a period of four weeks. For the delivery of this programme, GTS has adopted the new GWO Technician Entry Level Framework, which offers entry-level wind technicians specialised training in the areas of pre-assembly, installation or operations and maintenance together with the adoption of a global set of standards for wind turbine technicians. The training period is followed by industry placement. Upon completion, participants become fully certified Wind Turbine Technicians.

Table 8.9 details the number of trainees who participated in the Work in Wind and Wind Turbine Technician programmes. Note, however, that the 138 trainees from the Mid-East region included in Table 8.7 also engaged in various other courses and webinars beyond these two programmes, such as Sustainable Green Organisations, Offshore Wind for Professionals, and Introduction to High Voltage (HV) Electrical Installation.

Table 8.9: Trainees Participating in Green Tech Skillnet Programmes (2023)

County	Wind Turbine Technician	Work in Wind
Clare		1
Cork	3	3
Donegal	3	7
Dublin	1	
Galway	3	
Kerry		1
Kildare	3	1
Laois	1	
Mayo	1	2
Meath	2	1
Offaly	1	
Roscommon		1
Waterford		1
Wexford		1
Wicklow	1	
(Not Given)	1	1
Total	**20**	**20**

Source: Green Tech Skillnet.

The Work in Wind and Wind Turbine Technician programmes have been approved for 2024 but with reduced funding. According to the Green Tech Skillnet, both programmes will be run with reduced numbers expecting potentially 5 Wind Turbine Technicians and 10 to 15 Work in Wind participants.

Apprenticeships

Kerry College offers a new three-year Level 6 Wind Turbine Maintenance Technician (WTMT) Apprenticeship, which provides training in occupational areas associated with the role of Wind Turbine Maintenance Technician, including health and safety, and maintenance and fault finding of electrical, mechanical, control and hydraulic systems. This apprenticeship is designed to meet the needs of the growing Irish Renewable and Sustainable Energy sector and is directed at people who wish to pursue a career in the maintenance of large scale commercial wind turbines.

KWETB has also received accreditation for the delivery of a new **Wind Turbine Maintenance Technician (WTMT) Apprenticeship**. Delivery of this programme will commence as soon as a new training facility is identified.

Table 8.10 presents the number of apprentice registrations for engineering trades over the 2020-2023 period. KWETB and national-level figures are provided for comparison. However, while a figure for projected registrations in 2024 is provided at national level for 2024, the KWETB figure refers to the number of live registrations as of mid-February 2024. The KWETB figures provided in Table 8.10 should be interpreted with the caveat that the data represents the employer location within the ETB region, not the training provided by the ETB.

KWETB does not deliver any apprenticeship training for the trades included in Table 8.10 in their role as an ETB training provider. Carlow SETU and TU Dublin provide the training for most of the construction and electrical apprenticeships, which may explain their popularity in the region. Conversely, the absence of any registrations for the Wind Turbine Technician apprenticeship is concerning given the growing importance of the ORE sector in County Wicklow. One explanation for the lack of apprentices in the region could be the long distance between the training and employment locations, as Kerry ETB is the only coordinating provider for this apprenticeship.

Table 8.10: Number of engineering apprentice registrations by year and trade

APPRENTICESHIP	2020		2021		2022		2023		2024	
	KWETB	IRL	KWETB	IRL	KWETB	IRL	KWETB	IRL	KWETB Live 02/24	IRL Forecast
ENGINEERING										
Civil Engineering						0	<5	35	<5	24
Civil Engineering Technician						0	<5	9	<5	24
Engineering Services Management	<5	17	<5	34		22		17		30
Equipment Systems Engineer		0		6		5			<5	
Industrial Insulation	<5	23		22		16		12		25
Lean Sigma Manager	<5	39	<5	52		43	<5	48	5	30
Mechanical Automation and Maintenance Fitting	14	142	19	221	<5	203	11	202	42	215
Manufacturing Engineering (Level 7)		20	<5	53		48		48	<5	30
Manufacturing Technology (Level 6)	<5	30		42	<5	90		79	<5	80
Metal Fabrication	10	198	26	340	7	252	9	259	55	250
OEM Engineer	<5	16	<5	14		20	<5	30	10	48
Pipefitting	<5	52	<5	98	<5	114	<5	108	12	120
Polymer Processing Technology	<5	11	<5	14		17	<5	15	<5	16
Principal Engineer		5	<5	8		4	<5	15	<5	12
Sheet Metalworking	<5	41	<5	63		42		32	<5	50
Toolmaking	6	48	<5	52		48	<5	58	6	50
Wind Turbine Maintenance Technician					<5	14		14		30
Total	**39**	**642**	**66**	**1019**	**12**	**938**	**34**	**981**	**144**	**1034**

Source: KWETB data provided by the National Apprenticeship Office (NAO). National figures collated from NAO's 2023 annual report.

Micro-Credentials

Micro-credentials are a key component of efforts to provide the current and future workforce with opportunities to deliver jobs for the zero-carbon economy. Table 8.11 presents an overview of the micro-credentials offered by HEIs in Dublin and the Mid-East region, which are designed to upskill students and members of the workforce to boost renewable energy technology.

Table 8.11: Micro-Credential Programmes in Dublin and the Mid-East Region

HEI	Micro-Credential Programmes
UCD	UCD's development – in partnership with Green Tech Skillnet – of a specialised Electricity Grid Operation micro-credential addresses the key specifics of electrical power system operation, control, and energy economics. Flexibility is at the core of this 8-week programme, which offers online lectures and tutorials and two days in campus for demonstration labs. UCD's School of Law also offers a 12-week course in Climate Change Law and Policy, which examines the regulatory responses to climate change at a national, EU and international level. Climate change mitigation and adaptation responses are covered in this course along with case studies of climate litigation.
TCD	The **TCD School of Engineering** offers several micro-credentials that target engineers, architects, and other professionals interested in sustainable power generation technologies: Solar Energy Conversion and Application – 12 weeks, 5 places, Level 9. Low Carbon Power Technology – 24 weeks, 5 places, Level 9 NFQ. Air Pollution: Monitoring Assessment and Control – 12 weeks, 5 places, Level 8. Creative Value with ESG – 6 weeks, 30 places, Level 9 NFQ. Entrepreneurship for the Nature-based Enterprise – 9 weeks, 25 places, Level 9. Transport Modelling and Planning – 12 weeks, 5 places, Level 9 NFQ. Measuring Environmental Impact – 12 weeks, 10 places, Level 9 NFQ.
DCU	The **DCU Faculty of Engineering and Computing** offers a number of Springboard+ courses and micro-credentials in various areas of skills for the green economy: Graduate Diploma in Sustainable Energy Systems – Springboard+ course, 1 year full time, Level 9 NFQ. Energy System Decarbonisation – Micro-credential, 12 weeks, Level 9 NFQ.
MU	Maynooth University co-ordinates RES4CITY, which is a 36-month EU-funded project that takes an industry- and community-led approach to develop micro-programmes and micro-credentials in sustainable renewables and fuel technologies. The target audience for these courses are both students and professionals, regardless of whether they possess a STEM or non-STEM background. RES4CITY proposes a **multidisciplinary basket of 74 micro-credentials** (MCs) codesigned through **multi-stakeholder engagement and public private partnership** to ensure that courses respond to business needs and provide innovative education solutions required for a successful green transition in urban communities. At least **55**

HEI	Micro-Credential Programmes
	micro-credentials (MCs) are designed to tackle skill gaps, foster retraining opportunities and long-life learning in the field of RES technologies and strategies in urban areas. Each course is worth 2.5-3 ECTS with an average time to completion of 4-6 weeks. From the basket of 74 MCs, **44MCs have been selected to develop 8 micro-programs that will be produced and implemented in an online platform (MOOC).** Students will be able to choose individual MCs or entire programmes depending on their skills development needs. Maynooth University has been assigned responsibility for the following courses[190]: • Enacting a circular economy • Sustainable fashion • Introduction to sustainable finance • Tools, strategies, and trends in sustainable finance • Investing in sustainability • Climate risk and climate investing • Data analytics for the energy sector • Electric mobility and power system integration • Introduction to sustainability in agriculture Courses related to areas such as offshore and onshore wind energy, grid solar or hydroelectric power are also included in the full RES4CITY micro-credential offer and will be accessible to Irish students through the online platform.

8.5 Matching Skills Demand and Supply in Renewable Energy

Following a concise summary of current levels of skills supply across both higher education and further education and training, this section estimates the future provision levels that will be required to meet the skills needs brought about by employment growth forecasted up to 2030.

Several caveats must be made in relation to skills supply projections. For example, severe data limitations surround the sectoral and geographic employment of third-level graduates in fields related to engineering, construction, manufacturing, transport, marine sciences, environment, and energy. As a result, the calculations underlying the projected higher and further education demand and supply rely on assumptions that increase their uncertainty. Nevertheless, the scenarios presented help build awareness of the level of education provision required to meet the projected employment for this key sector of interest for Co. Wicklow.

The chapter concludes with an overview of approaches typically recommended for the renewable energy sector to develop the skilled workforce that is needed to achieve Ireland's 2030 and 2050 climate targets.

[190] De Rosa, Mattia (2023) *A multidisciplinary microcredential basket for the sustainable transition in cities | Deliverable D2.3.* Project Report. RES4CITY. Available at: Maynooth University Research Archive Library.

Summary – Higher Education and FET Skills Supply

Table 8.12 summarises the HEIs graduate pipeline for renewable energy related disciplines in 2022 and FET course participants in 2023. Across Ireland, 4,165 students graduated from 13 HEIs in 2022. Just 42% (1,755) of these students graduated from HEIs located in the proximity of Co. Wicklow (Dublin, Maynooth, Carlow, Waterford). While the course offer is undergoing changes, currently the offer in Wicklow and across the East coast is limited. As HEIs stats show, West coast universities deliver more courses in subjects relevant for renewable energy occupations.

Training, upskilling, and reskilling programmes are essential to support Co. Wicklow's economy with the emerging offshore wind projects and fill the skills shortages in engineering, financial services, logistics and technical expertise. The lack of a training facility available to the Kildare Wicklow ETB has also had implications for the lack of a tradition for apprentice provision in construction and other craft sectors. That said, as the data in Table 8.12 shows, a significant number of people have registered with KWETB for apprenticeships in construction, electrical and engineering trades, which provide the necessary upskilling needed for the transition to the zero carbon economy. As of December 2023, the KWETB obtained accreditation for the provision of a wind turbine apprenticeship but lacked the training facility required for delivery. Moreover, while the current FET offer in renewable energy technologies in Co. Wicklow is limited – particularly as far as programmes including a work-based placement component is concerned – numerous opportunities for training can be pursued in the county, especially around the ports that will be servicing offshore wind.

Table 8.12: HEIs and FET Graduate Pipeline

Education and Training Providers (HEIs & FET)	Graduates / Course Participants
HEIs (Dublin, Maynooth, Carlow, Waterford) (2022)	1,755
Green Tech Skillnet Short Courses – Wicklow participants (2023)	29
Green Tech Skillnet Wind Turbine Technician – Wicklow Trainees (2023)	1
Apprenticeships – Engineering[a]	144

[a]KWETB Live Registrations as of 15/02/2024.

Source: Data collated from HEA, Green Tech Skillnet, and the National Apprenticeship Office.

Higher Education Requirements to 2030

Table 8.13 presents the projected employment growth to 2030 under the three employment growth scenarios and the level of higher education provision required to meet each of the resulting skills demand scenarios. The starting point for identifying the required level of higher education provision is the projected increase to 2030 in the number of employees in renewable energy occupations in Co. Wicklow under the baseline, high growth, and low growth scenarios (detailed in Section 5.3). To account for losses due to retirement and career changes, an expected job displacement rate of 3.0% annually is applied to the projected annual number of employees. A factor of 60%[191] is

[191] Calculated based on the 2023 SOLAS Skills Bulletin data on the share of third level degrees across occupations and their estimated representation in the renewable energy sector.

then applied to determine the share of third-level graduates out of the total additional employment project to 2030. Thus, the additional higher education skills demand for the 2023-2030 period is projected to be 198 persons in the baseline scenario, 576 persons in the high growth scenario and 4 persons in the low growth scenario.

The scenario-specific projected higher education skills demand 2023-2030 figures are then matched with the required HEIs graduate output for Co. Wicklow. This exercise is based on several assumptions:

1. The 2022 national construction and manufacturing graduate pipeline (i.e., 6,325 graduates) is kept constant until 2030[192].

2. Taking into account a diverse labour market with professions in non-renewable industries as well as professions related to other areas of the renewable industries (e.g., housing retrofits, automobile and charging infrastructure) absorbing significant talent from the pool of construction and manufacturing graduates, only 25% of each annual cohort (i.e., 1,041 graduates) are assumed to commence employment in the sector nationwide.

3. The projected additional higher education skills needs for Co. Wicklow to 2030 are matched with the national annual graduate pipeline of 1,041 people to determine how many graduates are required to commence employment in Co. Wicklow under each of the scenarios.

This analysis shows that, between 2023 and 2030, **2.4% of national construction and manufacturing graduates would be required to commence employment in Co. Wicklow annually under the baseline scenario** to match the projected higher education skills demand (i.e., 198 people). Notably, **under the high growth scenario, 7.0% of national graduates (i.e., 577 people) would need to gain employment in Co. Wicklow** to meet the skills demand projected by high employment growth.

Table 8.13: Projected employment and higher education needs to 2030

Projected Employment	Baseline Scenario	High Growth Scenario	Low Growth Scenario
Renewable energy employment in 2022		95	
+ Projected additional employment 2023-30	+284	+839	-14
+ Projected job displacement 2023-30	+46	+123	+21
= Projected total additional employment 2023-30	+330	+962	+7
Percentage of persons with higher education		60%	
Projected HE skills demand 2023-2030	**+198**	**+577**	**+4**
Percentage of national HEI graduate pipeline required to match skills demand	**2.4%**	**7.0%**	**0.1%**

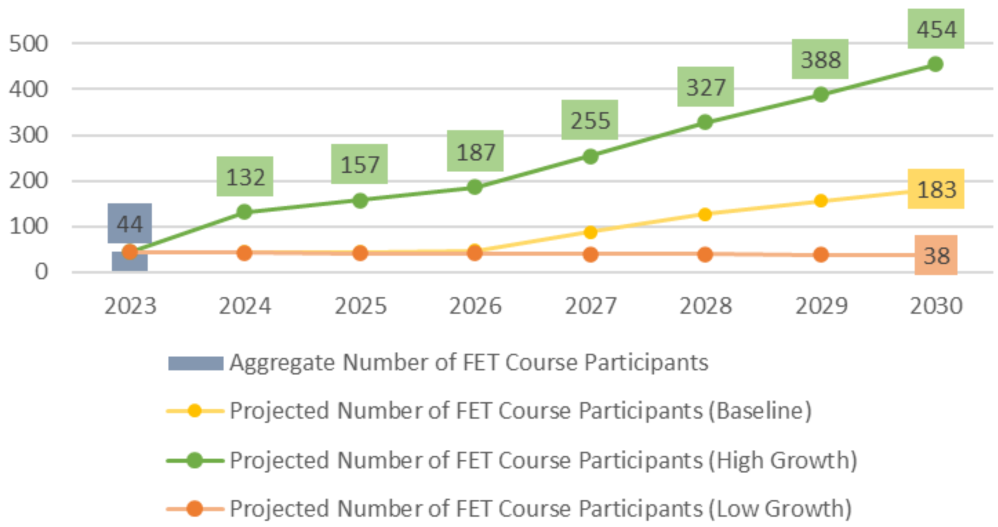
[192] As higher education stakeholders consulted noted, assumptions about how the educational offer might change in the medium and long-term would be too far-reaching.

FET Requirements to 2030

The projected number of FET course places required to match the scenario-specific projected employment growth to 2030 is determined by taking into account the total number of local and broader provision of FET course places in 2023 (detailed in Table 8.12) and estimating the share of Wicklow participants in these programmes[193]. This step yields a total number of 44 FET entries in 2023, with some participants potentially enrolling in multiple courses. The 44 FET course completions in 2023 correspond to approximately one place for every 2 employees in the sector.

Maintaining the FET uptake at current levels (i.e., 1 course place for every 2 employees) and considering employment growth to 2030 means that the number of FET course provision needs to increase to 178 places (+133) offered annually by 2030 under the baseline scenario and 438 places (+394) under the high growth scenario. The annual increase in FET provision required annually to match employment growth under each of the three scenarios is presented in Figure 8.8. Potential improvements to 2023 levels of FET uptake, such as ensuring that at least two thirds of employees are engaged in lifelong learning each year (i.e., amounting to two course completions by every three employees), would require higher numbers of FET course places – namely, 253 places under the baseline scenario and 622 course places in the high growth scenario (with 54 places required even under the low growth scenario).

Figure 8.8: Projected FET renewable energy course places, 2024-2030



Matching Skills Supply with Labour Market Demand – Areas for Action

This section puts forward several approaches that can help bridge the labour market demand and employment growth to 2030 with enhanced higher and further education and training provision that responds to industry skills needs.

[193] As precise data are currently unavailable, percentages of enrolled students from Co. Wicklow for individual FET courses are based on below estimates that are susceptible to significant variation: KWETB Tourism, Leisure, and Sports Courses - 10% of regional enrolments (Kildare/Wicklow), taking into considering that an assumed 25% of each annual cohort are assumed to work in the sector.

Industry-led approach

Collaboration between government and industry is generally seen as key for developing the skilled workforce that the offshore wind energy sector needs to achieve Ireland's 2030 and 2050 climate targets. Furthermore, Green Tech Skillnet and Wind Energy Ireland's 2024 analysis of the sector's skills and talent needs urged the government to refrain from funding courses for which a clear demand from industry has not been established.[194] As companies prefer to train their staff though in-house methods, alternative government interventions in skills development that help de-risk private sector investment while also encouraging companies to invest in developing the local workforce were recommended. For example, a skills development fund could be established to match industry investment in training programs with skills funding for work-based learning programmes, such as apprenticeships for new and emerging occupations across the renewable industries. Potential funding sources could include the €200,000 secured by DFHERIS in Budget 2024 to enable expansion of training provision for offshore wind energy skills requirements in the further education sector.[195]

Accelerating workforce upskilling

To accelerate workforce upskilling for offshore work, industry stakeholders recommend the close monitoring of degree and training programmes to ensure that modules related to renewable energy technologies are part of the national curricula. This action could also be pursued locally in the Mid-East region through engagement with both public education (higher education institutions and ETBs) and private training providers to ensure that offshore-relevant modules are included in engineering disciplines, construction, and project management; electrical joining and other electrical apprenticeships and training schemes and health and safety courses[196]. Local private training providers, who are regular partners in the delivery of Green Tech Skillnet training courses, could be co-opted in such actions.

Additional actions recommended for the higher education area include the establishment of postgraduate courses with renewable energy specialisms and microcredentials relevant for renewable energy technologies.

Public-private collaboration

Collaborative approaches between national and local government, industry and workers have been shown to produce stronger results and better targeted policies and measures.[197] Such a collaborative approach can be further pursued in Co. Wicklow. The companies involved in O-RESS 1 projects are already having supply chain events and skills events with local communities and schools. Further engagement from local authorities and other stakeholders with the projects delivering in the area is also crucial. Local companies are also interested in learning how they can get into the supply chain for construction jobs, as well as for surveyors, engineers and other roles that can be supplied locally. Therefore, partnering on supply chain events and information sessions

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[194] Green Tech Skillnet (2024). *Building our Potential*, p. 43.
[195] Department of Environment, Climate and Communications (2024). *Draft Offshore Renewable Energy Future Framework Policy Statement*, p. 46 Available at: Draft Future Framework.
[196] Ibid., p. 45.
[197] IEA (2022). *Skills Development and Inclusivity for Clean Energy Transitions*, p. 7.

and having various organisations involved – such as LEO, EI, IDA, Skillnets, Chambers, IBEC, Wind Energy Ireland – would help increase the supply of green skills in the area.

Monitoring mechanisms

Additionally, since green skills anticipation through forecasting and singular studies can only provide an overview of demand and the corresponding consequences for training provision at one point in time, it is important that regular mechanisms are put in place to ensure continuous monitoring of the demand for and supply of green skills.[198] For example, a local or regional observatory for green skills, or periodic green skills audits, could fulfil such a monitoring role.

Attracting workers from abroad

As many projects will likely move through the development stages in parallel – including on the West coast and Wicklow region –, industry stakeholders believe that the local workforce will not have the capacity to meet short term demand. The involvement of foreign workers in the development stages of offshore wind farms is seen as a short term solution for such labour shortages. Various incentives measures have been suggested in this regard, including relocation grants to employers or individuals or interventions tailored specifically for Irish nationals working in offshore wind abroad.[199]

Industry advertising

Advertising renewable energy areas – such as offshore wind – as attractive industries to work in is another long-term action recommended for national government[200]. An example of such an action is the recent launch of the Work in Wind portal, which highlights job opportunities in the wind energy sector, profiles real life case studies of people working in the industry and identifies pathways for those wishing to enter the industry through training programmes and third level courses.

Further awareness raising actions can also be pursued locally in Co. Wicklow and jointly by local authorities, industry support bodies, education and training actors, and private businesses to encourage the inclusion of renewable energy modules in secondary school and the uptake of relevant courses and degrees at third level.

[198] Cedefop (2019). *Skills for green jobs: 2018 update. European synthesis report*, p. 49.
[199] Green Tech Skillnet (2024). *Building our Potential*, p. 44.
[200] Idem., p. 46.

09
Recommendations

9 Recommendations

The recommendations outlined in this chapter identify opportunities to encourage new skills development and talent attraction by providing the necessary support for a thriving local economy. In developing the recommendations and associated actions, the findings of the literature review and policy analysis of national and international skills strategies – such as the OECD Skills Strategy 2023 and Ireland's National Skills Strategy 2025 – as well as national and international good practice in skills development have been carefully considered.

The recommendations are also strongly informed by the insights and feedback gleaned from the key stakeholders consulted, including chambers of commerce, business networks, community organisations, and third level and FET education providers in Co. Wicklow. This wide range of inputs are considered together with the population, labour and education projections that are put forward in this report to identify the demand for workforce and skills until 2030, while also considering the skills supply pathways for this workforce.

The recommendations proposed for the four key economic sectors that were singled out for analysis – namely, screen and content creation, renewable energy industries, agri-food and forestry, and tourism and hospitality – are framed by three common themes:

1) **Strategic and Collaborative Approaches for Innovation and Skills Development;** based on the understanding that the tremendous growth opportunities offered by both traditional and emerging economic sectors in Co. Wicklow need to be matched by a corresponding level of ambition to invest in innovation and training.

2) **Supporting Existing and Attracting New Businesses in Co. Wicklow**; with a range of proactive supports and measures that are needed to enable existing businesses to achieve their full growth potential and develop their skills base and to attract new businesses to the county.

3) **Promotion of Career Pathways and Work Experience Opportunities**; with a range of early intervention initiatives aimed at raising awareness about career pathways available for each of the key economic sectors as well as the promotion of work-based training initiatives, including traineeships, apprenticeships, and vocational training.

The remainder of this chapter first presents an overview of the projects recommended across themes and economic sectors. This overview is followed by a more detailed presentation of the projects that includes the stakeholders best placed to carry forward each project and the proposed timelines for their implementation. The projects are ambitious, achievable, and pragmatic and are targeted to respond to the challenges and opportunities identified during research and stakeholder engagement and to available funding programmes at regional, national, and EU level.

WICKLOW SKILLS STRATEGY RECOMMENDATIONS

THREE THEMES

Strategic and Collaborative Approaches for Innovation and Skills Development

Supporting Existing and Attracting New Businesses in Co. Wicklow

Promotion of Career Pathways and Work Experience Opportunities

FOUR KEY ECONOMIC SECTORS

01 SCREEN AND CONTENT CREATION

02 AGRI-FOOD AND FORESTRY

03 TOURISM AND HOSPITALITY

04 RENEWABLE ENERGY INDUSTRIES

PROPOSED PROJECTS

01 Screen and Content Creation

Project 1: Continue current sectoral specific industry engagement and monitor emerging opportunities to engage.

Project 2: Monitor existing and emerging occupations for screen and content creators in Co. Wicklow for potential opportunities.

Project 3: Promote the new enterprise supports available at the Clermont Screen Hub.

Project 4: Support and seek funding opportunities to facilitate the provision of training facilities for new skills development.

Project 5: Development and delivery of a suite of programmes to facilitate work-based training initiatives, apprenticeships and vocational training in the screen and content creation sector.

Project 6: Support the promotion of careers in screen and content creation to TY, second level and third level students through the work of the Crew Academies.

Project 7: Support the development of bespoke FET training for screen and content creation.

02 Agri-Food and Forestry

Project 1: Seek opportunities to progress development of the Food Incubation Centre.

Project 2: Continue to encourage industry engagement and networking.

Project 3: Monitor existing and emerging occupations for forestry and food and drinks production in Co. Wicklow.

Project 4: Continue Wicklow Naturally support to encourage initiatives across the agri-food sector.

Project 5: Continue running the Food Starter and Food Academy programmes on a regional basis depending on demand.

Project 6: Inform and support small local businesses to access funding opportunities.

Project 7: Encourage local businesses to support work placement opportunities.

Project 8: Strengthen existing partnerships between Coillte and education and training providers to encourage the development and provision of higher and further education courses for the forestry sector.

03 Tourism and Hospitality

Project 1: Continue to support industry engagement through the work of Wicklow Tourism.

Project 2: Monitor existing and emerging occupations for potential opportunities for tourism and hospitality in Co. Wicklow.

Project 3: Wicklow tourism strategy and skills review.

Project 4: Continue Wicklow Naturally support to encourage initiatives across the food, hospitality and tourism sectors.

Project 5: Inform and support small local businesses to access funding opportunities.

Project 6: Strengthen existing partnerships between flagship tourism and recreation destinations and education and training providers.

Project 7: Encourage local businesses to support work placement opportunities.

04 Renewable Energy Industries

Project 1: Support the development of infrastructure for offshore renewable energy (ORE).

Project 2: Continue to support industry engagement through the work of the East Coast ORE Network.

Project 3: Facilitate the provision of training facilities for new skills development.

Project 4: Monitor policy framework developments for the renewable energy sector and make submissions where relevant.

Project 5: Explore opportunities to develop micro-credentials in partnership with the RES4CITY programme co-ordinated by Maynooth University.

Project 6: Promotion of work-based training initiatives, apprenticeships and vocational training across renewable energy and maritime industries areas.

Project 7: Contribute to the work of the Accelerating Renewable Electricity Taskforce for skills development in renewable energy areas.

Project 8: Encourage STEM careers at primary and secondary schools where opportunity arises.

Project 9: Support the Skills Taskforce, ORE Network, and any other relevant groups to attend and feed into industry and college open days.

WICKLOW SKILLS STRATEGY - DELIVERY FRAMEWORK

Key Economic Sector	Proposed Projects	Lead	Partners	Timeframe	KPI
Theme 1: Strategic and Collaborative Approaches for Innovation and Skills Development	Project 1: Continue current sectoral specific industry engagement and monitor emerging opportunities to engage.	WCC	LEO Mid East Regional Skills Forum Enterprise Ireland	Ongoing / Strategy lifetime	Number of engagement events organised. Number of businesses represented.
	Project 2: Monitor existing and emerging occupations for screen and content creators in Co. Wicklow for potential opportunities.	WCC	LEO Mid East Regional Skills Forum Enterprise Ireland	Ongoing / Strategy lifetime	Number of skills audit exercises carried out. Annual progress towards closing the skills gaps.
Theme 2: Supporting Existing and Attracting New Businesses in Co. Wicklow	Project 3: Promote the new enterprise supports available at the Clermont Screen Hub.	WCC	Crew Academy East Screen Ireland	Short-Medium	Number of production companies availing of the supports available.
	Project 4: Support and seek funding opportunities to facilitate the provision of training facilities for new skills development.	WCC	Crew Academy East Screen Ireland Cultural & Creative Industries Skillnet KWETB	Ongoing / Strategy lifetime	Number of training facilities made available.
Theme 3: Promotion of Career Pathways and Work Experience Opportunities	Project 5: Development and delivery of a suite of programmes to facilitate work-based training initiatives, apprenticeships and vocational training in the screen and content creation sector.	KWETB	WCC Mid East Regional Skills Forum	Short-Medium	Number of apprenticeships made available and annual registrations.
	Project 6: Support the promotion of careers in screen and content creation to TY, second level and third level students through the work of the Crew Academies.	WCC	KWETB Crew Academy East Screen Ireland	Short-Medium	Number of "Screen and Content Creation Careers" days organised and primary/ secondary schools engaged.
	Project 7: Support the development of bespoke FET training for screen and content creation.	KWETB	LEO Mid East Regional Skills Forum	Short-Medium	Number of courses organised and participants registrations.

2. Agri-Food and Forestry

Key Economic Sector	Proposed Projects	Lead	Partners	Timeframe	KPI
Theme 1: Strategic and Collaborative Approaches for Innovation and Skills Development	Project 1: Seek opportunities to progress development of the Food Incubation Centre.	WCC	LEO	Medium-Long	Number of businesses availing of the new spaces and facilities made available at the Food Incubation Centre.
	Project 2: Continue to encourage industry engagement and networking.	KWETB	WCC Wicklow Naturally LEO Mid East Regional Skills Forum	Short-Medium	Number of networking events and webinars organised.
	Project 3: Monitor existing and emerging occupations for forestry and food and drinks production in Co. Wicklow.	WCC	LEO Mid East Regional Skills Forum Enterprise Ireland	Ongoing / Strategy lifetime	Number of skills audit exercises carried out. Annual progress towards closing the skills gaps.
Theme 2: Supporting Existing and Attracting New Businesses in Co. Wicklow	Project 4: Continue Wicklow Naturally support to encourage initiatives across the agri-food sector.	WCC	LEO Mid East Regional Skills Forum Enterprise Ireland	Ongoing / Strategy lifetime	Funding made available. Number of successful initiatives established for food and drinks producers.
	Project 5: Continue running the Food Starter and Food Academy programmes on a regional basis depending on demand.	LEO	WCC Enterprise Ireland	Short-Medium	Number of Wicklow businesses participating to the LEO food business development programmes.
	Project 6: Inform and support small local businesses to access funding opportunities.	WCC	LEO	Short-Medium	Number of Wicklow businesses accessing funds and business supports.
Theme 3: Promotion of Career Pathways and Work Experience Opportunities	Project 7: Encourage local businesses to support work placement opportunities.	KWETB	WCC Mid East Regional Skills Forum Enterprise Ireland	Short-Medium	Number of individuals registered for work-based training schemes. Number of trainees hired upon completing such schemes.
	Project 8: Strengthen existing partnerships between Coillte and education and training providers to encourage the development and provision of higher and further education courses for the forestry sector.	KWETB	Mid East Regional Skills Forum SETU	Ongoing / Strategy lifetime	Establishment of institutionalised partnership.

WICKLOW SKILLS STRATEGY - DELIVERY FRAMEWORK

Key Economic Sector	Proposed Projects	Lead	Partners	Timeframe	KPI
Theme 1: Strategic and Collaborative Approaches for Innovation and Skills Development	Project 1: Continue to support industry engagement through the work of Wicklow Tourism.	WCC Tourism	Mid East Regional Skills Forum KWETB SETU	Ongoing / Strategy lifetime	Set-up of a forum for industry stakeholders.
	Project 2: Monitor existing and emerging occupations for potential opportunities for tourism and hospitality in Co. Wicklow.	WCC Tourism	LEO Mid East Regional Skills Forum Enterprise Ireland	Ongoing / Strategy lifetime	Number of skills audit exercises carried out. Annual progress towards closing the skills gaps.
	Project 3: Wicklow tourism strategy and skills review.	WCC Tourism	SETU KWETB Mid East Regional Skills Forum	Short-Medium	Collaborative working group established. Creation and communication of a Wicklow Tourism brand identity.
Theme 2: Supporting Existing and Attracting New Businesses in Co. Wicklow	Project 4: Continue Wicklow Naturally support to encourage initiatives across the food, hospitality and tourism sectors.	Wicklow Tourism	LEO Mid East Regional Skills Forum Enterprise Ireland	Ongoing / Strategy lifetime	Wicklow Naturally member numbers and feedback.
	Project 5: Inform and support small local businesses to access funding opportunities.	WCC	LEO	Short-Medium	Number of Wicklow businesses accessing funds and business supports.
Theme 3: Promotion of Career Pathways and Work Experience Opportunities	Project 6: Strengthen existing partnerships between flagship tourism and recreation destinations and education and training providers.	KWETB	WCC Mid East Regional Skills Forum Enterprise Ireland	Ongoing / Strategy lifetime	Collaborative working group established.
	Project 7: Encourage local businesses to support work placement opportunities.	KWETB	WCC Mid East Regional Skills Forum	Short-Medium	Number of individuals registered for work-based training schemes. Number of trainees hired upon completing such schemes.

Key Economic Sector	Proposed Projects	Lead	Partners	Timeframe	KPI
Theme 1: Strategic and Collaborative Approaches for Innovation and Skills Development	Project 1: Support the development of infrastructure for offshore renewable energy (ORE).	WCC	LEO	Medium-Long	Feasibilty study commissioned. Priming grant received.
	Project 2: Continue to support industry engagement through the work of the East Coast ORE Network.	WCC	LEO KWETB Mid East Regional Skills Forum SETU	Ongoing / Strategy lifetime	Periodical meeting of partners to review lessons learned and industry challenges and share knowledge.
Theme 2: Supporting Existing and Attracting New Businesses in Co. Wicklow	Project 3: Facilitate the provision of training facilities for new skills development.	WCC	LEO KWETB SETU	Short	Identification and provision of new training facilities.
	Project 4: Monitor policy framework developments for the renewable energy sector and make submissions where relevant.	WCC	LEO Enterprise Ireland IDA	Ongoing / Strategy lifetime	Awareness campaign of energy policy framework.
Theme 3: Promotion of Career Pathways and Work Experience Opportunities	Project 5: Explore opportunities to develop micro-credentials in partnership with the RES4CITY programme co-ordinated by Maynooth University.	SETU	Mid East Regional Skills Forum SETU	Short-Medium	Creation of Micro Credentials in the i) Onshore Wind ii) Offshore Wind iii) Solar iv) Hydro sectors.
	Project 6: Promotion of work-based training initiatives, apprenticeships and vocational training across renewable energy and maritime industries areas.	KWETB	WCC Mid East Regional Skills Forum	Medium-Long	Number of apprenticeships made available and annual registrations. Feasibility study to establish training spaces for apprenticeships and vocational training.
	Project 7: Contribute to the work of the Accelerating Renewable Electricity Taskforce for skills development in renewable energy areas.	WCC	WCC Mid East Regional Skills Forum		Feasibility study to establishdemand for dedicated MA programmes in renewable energy.
	Project 8: Encourage STEM careers at primary and secondary schools where opportunity arises.	WCC	WCC LEO		Private industry roundtable to engage with schools in Co. Wicklow.
	Project 9: Support the Skills Taskforce, ORE Network, and any other relevant groups to attend and feed into industry and college open days.	SETU	WCC LEO		Establishment of booths/information campaigns on college campuses.

10 References

10 References

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11 Appendices

11 Appendices

11.1 Underlying Assumptions for the Population, Labour Market, and Education Projections

The projected population, labour force, and third-level education put forward in Chapter 3 are the result of a cohort-component model that is based on the following assumptions.

Component	Underlying assumptions
Fertility	Cohort-specific (5-year cohorts) fertility generally follows national pattern, with cohort 15-19 years at same (national) level, and cohorts 20-24, 25-29, 30-34, 35-39, 40-44 and 40-49 years at 8.0% above national level to arrive at a Total Fertility Rate (TFR) of 7.9% above national level, which reflects average 2011-2022 Co. Wicklow TFR deviation from national level. 2.0% decrease applied to all 5-year cohorts from 15 to 49 years from 2026 to 2030.
Mortality	2022 cohort-specific mortality values for national level (data source: CSO) with 2.0% annual improvement for males and 1.5% annual improvement for females.
Migration	No migration assumptions for Scenario 1. Cohort-specific (5-year cohorts) migration assumptions for Scenario 2 - migration surplus/deficit numbers per 1,000 persons for single years of age): Under 1 year: +5 persons; 01-04 and 05-09 year olds: +20 persons; 10-14 year olds: +15 persons; 15-10 and 20-24 year olds: -10 persons; 25-29 year olds: +15 persons; 30-34 year olds: +25 persons; 35-39 and 40-44 year olds: +20 persons; 45-49 year olds: +10 persons; 50 year olds and above: +5 persons.
Labour Force	Labour Force refers to cohort-specific (5-year cohorts) projection for 15-74 year olds based on Scenario 2 assumptions. Labour Force projection uses Scenario 2 population projection and Labour Force Participation Rate (based on CSO 2026 and 2031 CSO Labour Force assumptions (source: https://www.cso.ie/en/releasesandpublications/ep/p-plfp/populationandlabourforceprojections2017-2051/labourforceassumptions/). For intermediary years, average values are calculated.

Component	Underlying assumptions
Third-level Degree (Education Level)	Annual 0.7% increase in share of persons with third-level degree in the labour force from 2023 to 2026 which drops to an annual 0.6% increase from 2027 onwards.
FTE jobs projection (Renewable Energy)	Annual relative labour intensity for Operation & Maintenance (per MW of installed capacity): - offshore wind: 0.22 FTE jobs - onshore wind: 0.23 FTE jobs - solar: 1.02 FTE jobs Annual relative labour intensity is applied to individual onshore/ offshore wind and solar farms from second year of (planned) operation and a factor of 0.5 applied to FTE jobs in the first year of (planned) operation. Onshore wind farms: Raheenleagh (operational since 2023; 35.2 MW), Cronelea (operational; 5 MW) Offshore wind farms: Arklow Bank 1 (operational; 25 MW), Arklow Bank 2 (planned for operation 2029; 800 MW), Codling (planned for operation in 2027; 1,450 MW) Dublin Array (planned for operation 2028; 750 MW) Solar farms: Millvale (operational; 8 MW); Three Castles (planned for operation 2025; 19 MW)

11.2 IDA Companies in County Wicklow

The list of IDA companies below offers an overview of the sectors and geographical distribution with the county.

Table 11.1: IDA companies in Co. Wicklow

Name (Parent Company)	Location (MD)	Sector
Comar/Automatic Plastics Ltd.	Baltinglass	Manufacturing / Pharmaceutical/Medical
Commscope Emea Ltd.	Bray	Electronics
Conductix Wampfler Ltd.	Baltinglass	Energy
Dieterle Werkzeughandel GmbH Tooling	Arklow	Pharmaceutical/Medical
Elavon Financial Services Ltd.	Arklow	Financial
EML	Bray	Financial
GPA Global Ireland	Bray	Packaging/Promotions
Labod Electronic Production in Ireland GmbH	Bray	Electronics
Neriki Europe Ltd.	Bray	Manufacturing
Jabil / Nypro Ireland Ltd.	Bray	Manufacturing
Oriflame Global Technical Centre	Bray	Manufacturing

Name (Parent Company)	Location (MD)	Sector
Rupp & Hubrach Optik GmbH	Baltinglass	Pharmaceutical/Medical
SAFC Arklow Ltd.	Arklow	Manufacturing
Safeguard Systems Ltd.	Bray	Manufacturing
Servier (Ireland) Industries Ltd.	Arklow	Pharmaceutical/Medical
Takeda Ireland Ltd.	Bray	Pharmaceutical/Medical
Tcoag Ireland Ltd.	Bray	Pharmaceutical/Medical
United Caps Greystones Ltd.	Greystones	Packaging
Waddington Europe	Arklow	Packaging
Zoetis	Wicklow	Pharmaceutical/Medical

11.3 Stakeholders Engaged

Stakeholder Group	Organisations	Means of Engagement
Wicklow Skills Taskforce	Wicklow County Council Enterprise Ireland Wicklow Local Enterprise Office SETU Kildare and Wicklow ETB Regional Skills Forum MTU National Maritime College of Ireland Screen Ireland Screen Wicklow Wicklow Naturally	Roundtable discussion
Business & Community Networks	IDA Ireland Enterprise Ireland Wicklow Enterprise Park Arklow & District Chamber Wicklow Town & District Chamber of Commerce Bray & District Chamber of Commerce East Wicklow Business Network Blessington & District Forum	Roundtable discussion (and supplemented through semi-structured interviews)
Education and Training Institutions / Authorities	South East Technological University Maynooth University MTU National Maritime College of Ireland Kildare Wicklow ETB Mid-East Regional Skills Forum National Learning Network Enterprise Ireland – Spotlight on Skills Programme Learning & Development Institute SOLAS – Skills and Labour Market Research Unit National Apprenticeship Office	Semi-structured interviews

Stakeholder Group	Organisations	Means of Engagement
Skillnet Business Networks	L&D Skillnet Cultural & Creative Industries Skillnet Green Tech Skillnet ISME Skillnet Construction Professionals Skillnet Engineering Skillnet Macra Agricultural Skillnet	Written communication supplemented by semi-structured interviews
Renewable Energy & Maritime Industries	Codling Park SSE Renewables RWE Renewables Ireland Wind Energy Ireland ASL Safety & Training WH Scott & Son Engineers Ltd Gavin & Doherty Geosolutions Echelon Data Centres	Roundtable discussion (and supplemented through semi-structured interviews and online survey)
Screen and Content Creation	Screen Ireland – Skills & Professional Development Screen Wicklow Crew Academy East Ardmore Studios O'Sullivan Productions Bigger Stage Cable Rock Pictures Grand Pictures Metropolitan Film Productions	Roundtable discussions (and supplemented through semi-structured interviews and online survey)
Agri-Food and Forestry	Coillte (Forestry Division) Wicklow Naturally James Burke & Associates Glenhaven Foods Janet's Country Fayre An Tairseach Organic Farm & Ecology Centre Marine Health Foods	Roundtable discussion (and supplemented through semi-structured interviews and online survey)

Stakeholder Group	Organisations	Means of Engagement
	Kilmullen Farm Baileys Farm	
Tourism and Hospitality	Failte Ireland Bray Tourism Wicklow Tourism Wicklow Naturally Coillte (Recreation Division) Beyond the Trees Avondale Russborough House Druids Glen Resort Glendalough Hotel	Roundtable discussions (and supplemented through semi-structured interviews and online survey)

11.4 Sectoral Skills Shortages

The list of skills shortages included below draws on the responses received to the online employers' survey.

Table 11.2: What specific skills are you currently lacking within your workforce – or will require in the coming 3-5 years?

Sector	Skill Gaps
Food & Drinks Production No respondents: 12	**Chefs** Horticulturists Seasonal beekeepers Food technologists Management (e.g., financial, new product development, procurement, lean six sigma) Sales & Marketing (including digital marketing) Hygiene, Health & Safety (e.g., food safety compliance, food hygienists, health & sustainability ESG & Environmental Conservation Customer Service (e.g., communication skills)
Tourism & Hospitality No respondents: 9	**Chefs** (e.g., qualified/trained kitchen staff) Trained front of house staff (e.g., food and beverage servers) Experienced hospitality professionals (e.g., middle management, housekeeping, sales) Experienced visitor attraction staff and management (e.g., trained tour guides) Traditional craft skills (e.g., use of traditional lime mortar instead of cement, scything instead of strimming for wildlife) Production line staff Drivers (e.g., part-time & full-time)
Screen & Content Creation No respondents: 9	**Production management** (e.g., senior & junior production managers, production coordinators) **Editors** Researchers Multi-camera directors and operators Production accountants (qualified accountants) Electricians (qualified)

Sector	Skill Gaps
	Script Supervisors (Continuity) Set designers Film crew (e.g., locations, art, catering, construction, props)
Renewable Energy & Maritime Industries No respondents: 7	Offshore wind service technicians (i.e., technicians to operate offshore infrastructure) Engineers Geophysicists Marine biologists Logistics professionals Skilled workers, fabricators, welders fitters etc Offshore wind farm design (integrated load analysis, detailed designers for substructure design, technical engineers for development and design etc.) Instructors, administration, safety consultants (environment and marine particularly)
Manufacturing & Engineering No respondents: 7	Rope splicing General operatives / Skilled labour Maintenance technicians Automation engineers and technicians Quality engineers Process engineers Electricians Mechanical assembly,
Professional, scientific, and technical activities No respondents: 6	Scientists (biochemistry) Licensed machine operators Legal secretaries & executives Services engineer consultants Architectural technologists
HR, Admin & Support Services No respondents: 5	Engineers Accountants VGR
Construction No respondents: 3	Carpenters Electricians

Sector	Skill Gaps
	Plumbers Engineers Onsite managers Quantity surveyors
Agriculture & Retail No respondents: 3	Forklift drivers Loader drivers Mill operatives Heavy goods vehicle drivers Retail counter sales Chefs/cooks Retail sales Drivers (public service vehicles licence)
Forestry / Coillte No respondents: 1	Forestry Contractors (harvesting / haulage / establishment / engineering / ecologists) Foresters – Coillte has an annual National Graduate Recruitment programme and national intake would be in the region of 10 per annum. Harvesting – Forwarder and harvester operators (highly technical) Establishment – Planting and maintenance crews (Semiskilled work) Haulage – Lorry drivers (Skilled) Nursery Staff – Tree breeding specialists (Semiskilled operators) Processing (highly skilled roles including electrical engineering, technology experts, and general operatives with a high degree of technology skills) Support areas – Administration, Finance, Legal, Ecologists, Procurement, HR, Supply Chain staff. Remote Sensing Specialists Hydrology Specialists Forestry Planting and Maintenance Operators
Information & Communication No respondents: 2	Commercial (sales) staff Journalists

11.5 Arts and Crafts – FET Courses (2022-2024)

Provider	Prog. Category	Title	Award Level	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
Wicklow Community Education	Community Education	Art Level 6 Signal Arts "Arts in The Community" 6N3585	Advanced Certificate/Higher Certificate	04/02/2022	03/06/2022	12	6	50.0%	14 weeks	Parttime
Bray VTOS	VTOS Core	Creative Craft	Level 5 Certificate	29/08/2022	25/08/2023	14	4	28.6%	52 weeks	Fulltime
Wicklow FEC		Art, Craft and Design, Level 5 VTOS	Level 5 Certificate	05/09/2022	01/09/2023	12	16	133.3%	52 weeks	Fulltime
Bray Institute of Further Education	PLC	Acting - Advanced for Stage & Screen Year 1	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	16	15	93.8%	35 weeks	Fulltime
		Acting - Advanced for Stage & Screen Year 2	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	16	0	0.0%	35 weeks	Fulltime
		Acting for Theatre & Film (Performing Arts)	Level 5 Certificate	12/09/2022	26/05/2023	16	0	0.0%	35 weeks	Fulltime
		Art Portfolio Preparation	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	16	22	137.5%	35 weeks	Fulltime
		Art, Craft and Design	Level 5 Certificate	12/09/2022	02/06/2023	16	24	150.0%	35 weeks	Fulltime
		Dance technique Performance & Choreography BTEC HND Year 1	Advanced Certificate/Higher Certificate	12/09/2022	02/06/2023	16	7	43.8%	35 weeks	Fulltime
		Dance Technique Performance & Choreography BTEC HND Year 2	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	16	0	0.0%	35 weeks	Fulltime
		Dance Technique Performance & Choreography National Diploma	Level 5 Certificate	12/09/2022	12/05/2023	16	0	0.0%	35 weeks	Fulltime
		DJ Techniques & Music Production	Level 5 Certificate	12/09/2022	26/05/2023	16	13	81.3%	35 weeks	Fulltime

Provider	Prog. Category	Title	Award Level	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
		DJ Techniques & Music Production Group 2	Level 5 Certificate	12/09/2022	26/05/2023	16	0	0.0%	35 weeks	Fulltime
		Fashion Design HNC Year 1	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	16	8	50.0%	35 weeks	Fulltime
		Fashion Design HND Year 2	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	16	4	25.0%	35 weeks	Fulltime
		Fine Art Arts Practice Year 1	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	14	0	0.0%	35 weeks	Fulltime
		Fine Art Arts Practice Year 2	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	14	9	64.3%	35 weeks	Fulltime
		Furniture Design and Manufacture (Furniture Design & Making)	Level 5 Certificate	12/09/2022	02/06/2023	16	18	112.5%	35 weeks	Fulltime
		Furniture Design and Cabinet Making Level 6	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	14	0	0.0%	35 weeks	Fulltime
		Graphic Design Year 1	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	16	22	137.5%	35 weeks	Fulltime
		Graphic Design Year 2	Advanced Certificate/Higher Certificate	12/09/2022	02/06/2023	16	7	43.8%	35 weeks	Fulltime
		Jewellery Making & Design	Level 5 Certificate	12/09/2022	26/05/2023	24	6	25.0%	35 weeks	Fulltime
		Music Performance Year 1	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	16	14	87.5%	35 weeks	Fulltime
		Music Performance Year 2	Advanced Certificate/Higher Certificate	12/09/2022	02/06/2023	16	6	37.5%	35 weeks	Fulltime
		Music Production Year 1	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	16	16	100.0%	35 weeks	Fulltime

Provider	Prog. Category	Title	Award Level	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
		Music Production Year 2 BTEC - HND (2018)	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	16	12	75.0%	35 weeks	Fulltime
		Sound Engineering BTEC Diploma	Level 5 Certificate	12/09/2022	26/05/2023	16	13	81.3%	35 weeks	Fulltime
		Traditional Irish & Folk Music Performance	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	16	0	0.0%	35 weeks	Fulltime
Bray VTOS	VTOS Core	Creative Craft [Art Crafts & Design for experienced practitioners]	Level 5 Certificate	28/08/2023	30/08/2024	16	5	31.3%	33 weeks	Fulltime
Wicklow FEC	VTOS Core	Art, Craft and Design Level 5 (Skills to Compete)	Level 5 Certificate	04/09/2023	31/05/2024	10	11	110.0%	39 weeks	Fulltime
Bray Institute of Further Education	PLC	Acting- Advanced for Stage & Screen Year 1	Advanced Certificate/Higher Certificate	11/09/2023	23/05/2024	16	0	0.0%	35 weeks	Fulltime
		Acting- Advanced for Stage & Screen Year 2	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	0	0.0%	35 weeks	Fulltime
		Acting for Theatre & Film (Performing Arts)	Level 5 Certificate	11/09/2023	24/05/2024	16	11	68.8%	35 weeks	Fulltime
		Art Portfolio Preparation (Art)	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	11	68.8%	35 weeks	Fulltime
		Art, Craft and Design (Art, Craft and Design)	Level 5 Certificate	11/09/2023	24/05/2024	16	22	137.5%	35 weeks	Fulltime
		Dance technique Performance & Choreography BTEC HND Year 1	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	0	0.0%	35 weeks	Fulltime
		Dance Technique Performance & Choreography BTEC HND Year 2	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	0	0.0%	35 weeks	Fulltime
		Dance Technique Performance &	Level 5 Certificate	11/09/2023	24/05/2024	16	0	0.0%	35 weeks	Fulltime

Provider	Prog. Category	Title	Award Level	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
		Choreography National Diploma								
		DJ Techniques & Music Production	Level 5 Certificate	11/09/2023	24/05/2024	16	17	106.3%	35 weeks	Fulltime
		Fashion Design HNC Year 1	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	10	62.5%	35 weeks	Fulltime
		Fashion Design HND Year 2	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	2	12.5%	35 weeks	Fulltime
		Fine Art Arts Practice Year 1	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	14	13	92.9%	35 weeks	Fulltime
		Fine Art Arts Practice Year 2	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	14	0	0.0%	35 weeks	Fulltime
		Furniture Design and Manufacture (Furniture Design & Making)	Level 5 Certificate	11/09/2023	24/05/2024	16	16	100.0%	35 weeks	Fulltime
		Furniture Design and Cabinet Making Level 6 (Furniture Design)	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	14	1	7.1%	35 weeks	Fulltime
		Graphic Design Year 1	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	24	150.0%	35 weeks	Fulltime
		Graphic Design Year 2	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	16	100.0%	35 weeks	Fulltime
		Jewellery Making & Woodcraft Design (Creative Craft)	Level 5 Certificate	11/09/2023	24/05/2024	24	10	41.7%	35 weeks	Fulltime
		Music Performance Year 1	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	17	106.3%	35 weeks	Fulltime
		Music Performance Year 2	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	4	25.0%	35 weeks	Fulltime

Provider	Prog. Category	Title	Award Level	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
		Music Production Year 1	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	22	137.5%	35 weeks	Fulltime
		Music Production Year 2 BTEC - HND (2018)	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	9	56.3%	35 weeks	Fulltime
		Sound Engineering BTEC Diploma	Level 5 Certificate	11/09/2023	24/05/2024	16	7	43.8%	35 weeks	Fulltime
		Traditional Irish & Folk Music Performance	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	0	0.0%	35 weeks	Fulltime
Wicklow FEC	VTOS Core	Art, Craft and Design Level 5	Level 5 Certificate	26/08/2024	30/05/2025	11	0		40 weeks	Fulltime
Bray Institute of Further Education	PLC	Acting- Advanced for Stage & Screen 1 (Performing Arts)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Acting- Advanced for Stage & Screen 2 (Performing Arts)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Acting for Theatre & Film (Performing Arts)	Level 5 Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Advanced Craft Design (Art)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	24	0		0 weeks	Fulltime
		Art Portfolio Preparation (Art)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Art, Craft & Design (Creative Craft)	Level 5 Certificate	09/09/2024	23/05/2025	24	0		35 weeks	Fulltime
		Art, Craft and Design	Level 5 Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Dance technique Performance & Choreography 1	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Dance Technique Performance & Choreography BTEC HND Year 2	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime

Provider	Prog. Category	Title	Award Level	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
		Dance Technique Performance & Choreography National Diploma	Level 5 Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		DJ Techniques (Music Production)	Level 5 Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Fashion Design HNC (Art and Design)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Fashion Design HND (Art and Design)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Fine Art Practice 1 (Art and Design)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	14	0		35 weeks	Fulltime
		Fine Art Practice 2 (Art and Design)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	14	0		35 weeks	Fulltime
		Furniture Design and Manufacture (Furniture Design & Making)	Level 5 Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Furniture Design and Cabinet Making (Furniture Design)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	14	0		35 weeks	Fulltime
		Graphic Design 1 (Art and Design)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Graphic Design 2 (Art and Design)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Jewellery Making & Woodcraft Design (Creative Craft)	Level 5 Certificate	09/09/2024	23/05/2025	24	0		35 weeks	Fulltime
		Music Performance 1 (Music)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime

Provider	Prog. Category	Title	Award Level	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
		Music Performance 2 (Music)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Music Production 1 (Music)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Music Production 2 (Music)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Sound Engineering (Music Production)	Level 5 Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Traditional Irish & Folk Music Performance (Music)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		37 weeks	Fulltime
Bray Institute of Further Education	VTOS Core	Art, Craft & Design (Arts, Crafts and Social Entrepreneurship)	Level 4 Certificate	09/09/2024	23/05/2025	24	0		35 weeks	Fulltime

11.6 Media Graphics Communications – FET Courses (2022-2024)

Provider	Prog. Category	Title	Award Level	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
Bray Institute of Further Education	PLC	Architecture; Design & Technology (Design)	Level 5 Certificate	12/09/2022	26/05/2023	16	15	93.8%	35 weeks	Fulltime
Bray Institute of Further Education	PLC	Film Special Effects	Advanced Certificate/Higher Certificate	12/09/2022	12/05/2023	16	0	0.0%	35 weeks	Fulltime
Bray Institute of Further Education	PLC	Game Design (Creative Media)	Level 5 Certificate	12/09/2022	26/05/2023	16	27	168.8%	35 weeks	Fulltime
Bray Institute of Further Education	PLC	Games Development Level 6	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	18	0	0.0%	35 weeks	Fulltime
Bray Institute of Further Education	PLC	TV & Film Production - Advanced Year 1 BTEC HND	Advanced Certificate/Higher Certificate	12/09/2022	26/05/2023	16	12	75.0%	35 weeks	Fulltime
Bray Institute of Further Education	PLC	TV & Film Production (Film & Television Production)	Level 5 Certificate	12/09/2022	26/05/2023	16	22	137.5%	35 weeks	Fulltime
Bray Institute of Further Education	PLC	TV & Film Production Advanced Year 2 BTEC HND	Advanced Certificate/Higher Certificate	12/09/2022	02/06/2023	16	7	43.8%	35 weeks	Fulltime
Wicklow FEC	BTEI Groups	ADOBE Certified Professional-In Design		07/10/2022	02/06/2023	15	7	46.7%	34 weeks	Parttime
Bray VTOS	VTOS Core	Digital Arts & Creative Media	Level 5 Certificate	28/08/2023	30/08/2024	15	15	100.0%	53 weeks	Fulltime
Bray Institute of Further Education	PLC	Architecture; Design & Technology (Design)	Level 5 Certificate	11/09/2023	24/05/2024	16	12	75.0%	35 weeks	Fulltime
Bray Institute of Further Education	PLC	Film Special Effects	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	0	0.0%	35 weeks	Fulltime
Bray Institute of Further Education	PLC	Game Design (Creative Media)	Level 5 Certificate	11/09/2023	24/05/2024	16	25	156.3%	35 weeks	Fulltime
Bray Institute of Further Education	PLC	Games Development Level 6 (Digital Media Production)	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	18	0	0.0%	35 weeks	Fulltime
Bray Institute of Further Education	PLC	Podcasting & Streaming (Creative Media)	Level 5 Certificate	11/09/2023	24/05/2024	24	0	0.0%	35 weeks	Fulltime

Provider	Prog. Category	Title	Award Level	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
		TV & Film Production - Advanced Year 1 BTEC HND	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	16	100.0%	35 weeks	Fulltime
		TV & Film Production (Film & Television Production)	Level 5 Certificate	11/09/2023	24/05/2024	16	22	137.5%	35 weeks	Fulltime
		TV & Film Production Advanced Year 2 BTEC HND	Advanced Certificate/Higher Certificate	11/09/2023	24/05/2024	16	0	0.0%	35 weeks	Fulltime
Wicklow FEC	BTEI Groups	ADOBE Certified Professional-Photoshop		15/09/2023	31/05/2024	12	9	75.0%	37 weeks	Parttime
Bray Inst of Further Education	Tertiary	BA (Hons) Immersive Media Production	Honours bachelor's degree/Higher Diploma	18/09/2023	31/05/2024	20	8	40.0%	37 weeks	Fulltime
Bray Institute of Further Education	PLC	Architecture; Design & Technology (Design)	Level 5 Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Digital Arts (Creative Media)	Level 5 Certificate	09/09/2024	23/05/2025	24	0		35 weeks	Fulltime
		Game Design (Creative Media)	Level 5 Certificate	09/09/2024	23/05/2025	16	0		37 weeks	Fulltime
		Games Development (Digital Media Production)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	18	0		37 weeks	Fulltime
		Podcasting & Streaming (Creative Media)	Level 5 Certificate	09/09/2024	23/05/2025	24	0		35 weeks	Fulltime
		TV & Film Production HNC (Creative Media Production)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		TV & Film Production HND (Creative Media Production)	Advanced Certificate/Higher Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		TV & Film Production QQI (Film & Television Production)	Level 5 Certificate	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
Bray Inst of Further Education	Tertiary	BA (Hons) Immersive Media Production	Honours Bachelor Degree/Higher Diploma	09/09/2024	23/05/2025	20	0		35 weeks	Fulltime
Wicklow FEC	BTEI Groups	ADOBE Certified Professional-Illustrator		13/09/2024	30/05/2025	12	0		37 weeks	Parttime

11.7 Horticulture – FET Courses (2022-2025)

Provider	Prog. Category	Award Level	Title	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
Blessington FEC	BTEI Groups	Level 4 Certificate	Horticulture Level 4 - Blessington BTEI	13/01/2022	26/05/2022	12	9	75.0%	19 weeks	Parttime
Bray Institute of Further Education	PLC	Level 5 Certificate	Applied Ecology & Biodiversity Studies	12/09/2022	26/05/2023	16	0	0.0%	35 weeks	Fulltime
		Level 5 Certificate	Garden Design Level 5 (Horticulture)	12/09/2022	26/05/2023	16	0	0.0%	35 weeks	Fulltime
Blessington FEC	BTEI Groups	Level 4 Certificate	Horticulture Level 4 - Blessington BTEI	15/09/2022	22/12/2022	12	10	83.3%	14 weeks	Parttime
Blessington FEC	BTEI Groups	Level 4 Certificate	Horticulture Level 4 - Blessington BTEI	10/01/2023	25/05/2023	12	10	83.3%	19 weeks	Parttime
		Level 4 Certificate	Horticulture Level 4 - Blessington BTEI	11/09/2023	15/12/2023	12	11	91.7%	14 weeks	Parttime
Bray Institute of Further Education	PLC	Level 5 Certificate	Applied Ecology & Biodiversity Studies (Applied Ecology)	11/09/2023	24/05/2024	16	14	87.5%	35 weeks	Fulltime
		Level 5 Certificate	Garden Design Level 5 (Horticulture)	11/09/2023	24/05/2024	16	0	0.0%	35 weeks	Fulltime
Blessington FEC	BTEI Groups	Level 4 Certificate	Horticulture Level 4 - Blessington BTEI	11/01/2024	30/05/2024	12	0		20 weeks	Parttime
Bray Institute of Further Education	PLC	Level 5 Certificate	Applied Ecology & Biodiversity Studies (Applied Ecology)	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Level 5 Certificate	Garden Design (Horticulture)	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
Blessington FEC	BTEI Groups	Level 5 Certificate	Applied Ecology	10/09/2024	20/12/2024	12	0		14 weeks	Fulltime
		Level 5 Certificate	Horticulture Level 5	11/09/2024	20/12/2024	12	0		14 weeks	Parttime
		Level 4 Certificate	Horticulture Level 4 - Blessington BTEI	12/09/2024	19/12/2024	12	0		14 weeks	Parttime

11.8 Food and Beverage – FET Courses (2022-2025)

Provider	Prog. Category	Award Level	Title	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
Wicklow Training	Bridging and Foundation Training		Barista Skills Marine House Ukraine - Baltinglass	14/06/2022	15/06/2022	10	14	140.0%	2 days	Parttime
			Barista Skills Marine House Wicklow 27th June Over 18s	27/06/2022	27/06/2022	10	13	130.0%	1 days	Parttime
			Barista Skills Marine House Wicklow Friday 22nd April U18s	22/04/2022	22/04/2022	10	7	70.0%	1 days	Parttime
			Barista Skills Marine House Wicklow Monday 21st February U18s	21/02/2022	21/02/2022	10	7	70.0%	1 days	Parttime
			Barista Skills Marine House Wicklow Tuesday 20th June Over 18s	20/06/2022	20/06/2022	10	9	90.0%	1 days	Parttime
			Barista Skills Marine House Wicklow Tuesday 22nd February U18s	22/02/2022	22/02/2022	10	10	100.0%	1 days	Parttime
			Barista Skills Marine House Wicklow Tuesday 7th June U18s	07/06/2022	07/06/2022	10	10	100.0%	1 days	Parttime
			Barista Skills Marine House Wicklow Wednesday 8th June U18s	08/06/2022	08/06/2022	10	10	100.0%	1 days	Parttime
			Barista Skills Marine House Wicklow, Monday 22nd August Over 18s	22/08/2022	22/08/2022	10	9	90.0%	1 days	Parttime
			Barista Skills Marine House Wicklow, Wednesday 23rd March, Over 18s	23/03/2022	23/03/2022	10	7	70.0%	1 days	Parttime
Wicklow Training	Evening Training	Level 5 Certificate	Pastry, Baking & Desserts	26/02/2022	29/04/2022	8	7	87.5%	9 weeks	Parttime
		Level 5 Certificate	Pastry, Baking & Desserts	20/05/2022	21/07/2022	8	9	112.5%	9 weeks	Parttime
			Pizza Making Skills April 2022	02/04/2022	30/04/2022	8	8	100.0%	4 weeks	Parttime
			Pizza Making Skills February 2022	26/02/2022	26/03/2022	8	7	87.5%	4 weeks	Parttime
Wicklow Training	FET Pathways from School		Avondale CC 2nd December, Barista Skills	02/12/2022	02/12/2022	10	10	100.0%	1 days	Parttime
			Barista Skills Avondale Community College 23rd November	23/11/2022	23/11/2022	10	11	110.0%	1 days	Parttime
			Barista Skills Avondale Community College 25th November	25/11/2022	25/11/2022	10	10	100.0%	1 days	Parttime
			Barista Skills Avondale Community College 28th November	28/11/2022	28/11/2022	10	11	110.0%	1 days	Parttime

Provider	Prog. Category	Award Level	Title	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
			Barista Skills Avondale Community College 29th November	29/11/2022	29/11/2022	10	7	70.0%	1 days	Parttime
			Barista Skills Avondale Community College 30th November	30/11/2022	30/11/2022	10	12	120.0%	1 days	Parttime
			Barista Skills Avondale School TY 24th March 2022	24/03/2022	31/03/2022	10	14	140.0%	6 days	Parttime
			Barista Skills Colaiste Raithin 11th November	11/11/2022	11/11/2022	10	19	190.0%	1 days	Parttime
			Barista Skills Colaiste Raithin 7th November	07/11/2022	07/11/2022	10	18	180.0%	1 days	Parttime
			Barista Skills Colaiste Raithin 8th November	08/11/2022	08/11/2022	10	7	70.0%	1 days	Parttime
			Barista Skills Glenart School 20th October	20/10/2022	20/10/2022	10	10	100.0%	1 days	Parttime
			Barista Skills Glenart School 21st October	21/10/2022	21/10/2022	10	6	60.0%	1 days	Parttime
			Barista Skills Glenart School 4th October	07/10/2022	07/10/2022	10	10	100.0%	1 days	Parttime
			Barista Skills Glenart School 6th October	22/10/2022	22/10/2022	10	12	120.0%	1 days	Parttime
			Barista Skills Glenart School 7th October	07/10/2022	07/10/2022	10	6	60.0%	1 days	Parttime
			Barista Skills Marine House Wicklow, Under 18s	15/08/2022	15/08/2022	10	7	70.0%	1 days	Parttime
			Barista Skills Marine House Wicklow, Tuesday 23rd August Under 18s	23/08/2022	23/08/2022	10	12	120.0%	1 days	Parttime
			St Kevin's Community School, 16th November, Barista Skills	16/11/2022	16/11/2022	10	12	120.0%	1 days	Parttime
			St Kevin's Community School, 21st November, Barista Skills	21/11/2022	21/11/2022	10	12	120.0%	1 days	Parttime
			St Kevin's Community School, 25th November, Barista Skills	25/11/2022	25/11/2022	10	12	120.0%	1 days	Parttime
			St Kevin's Community School, 5th December, Barista Skills	05/12/2022	05/12/2022	10	14	140.0%	1 days	Parttime
			St Kevin's Community School, 6th December, Barista Skills	06/12/2022	06/12/2022	10	14	140.0%	1 days	Parttime
			St Kevin's Community School, 7th December, Barista Skills	13/12/2022	13/12/2022	10	10	100.0%	1 days	Parttime
			TY 1, CCM 14th November, Barista Skills:	14/11/2022	14/11/2022	10	20	200.0%	1 days	Parttime
			TY Barista Skills Avondale School 25th March FET Pathways from School;	30/03/2022	31/03/2022	15	11	73.3%	2 days	Parttime

Provider	Prog. Category	Award Level	Title	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
			TY Barista Skills Avondale School 28th March FET Pathways from School;	28/03/2022	30/03/2022	15	14	93.3%	3 days	Parttime
			TY Barista Skills Avondale School 29th March FET Pathways from School;	29/03/2022	30/03/2022	15	13	86.7%	2 days	Parttime
			TY Barista Skills Colaiste Raithin Friday 13th May	13/05/2022	13/05/2022	15	13	86.7%	1 days	Parttime
			TY Barista Skills Colaiste Raithin Monday 9th May	09/05/2022	09/05/2022	15	12	80.0%	1 days	Parttime
			TY Barista Skills Colaiste Raithin Thursday 12th May	12/05/2022	12/05/2022	15	13	86.7%	1 days	Parttime
			TY Barista Skills Colaiste Raithin Tuesday 10th May	10/05/2022	10/05/2022	15	11	73.3%	1 days	Parttime
			TY2, CCM 15th November, Barista Skills:	15/11/2022	15/11/2022	10	20	200.0%	1 days	Parttime
			TY3, CCM 17th November, Barista Skills:	17/11/2022	17/11/2022	10	20	200.0%	1 days	Parttime
			TY4, CCM 18th November, Barista Skills	18/11/2022	18/11/2022	10	23	230.0%	1 days	Parttime
Bray Inst of Further Education	PLC	Level 5 Certificate	Barista, Pastry & Baking	12/09/2022	02/06/2023	16	9	56.3%	35 weeks	Fulltime
		Level 5 Certificate	Brewing and Distilling Technology (Food Science)	12/09/2022	26/05/2023	16	2	12.5%	35 weeks	Fulltime
		Level 5 Certificate	Culinary Arts (Professional Cookery)	12/09/2022	26/05/2023	16	17	106.3%	35 weeks	Fulltime
		Advanced Certificate/Higher Certificate	Culinary Arts Advanced	12/09/2022	26/05/2023	16	0	0.0%	35 weeks	Fulltime
		Level 5 Certificate	Dietetics, Nutrition and Food Science	12/09/2022	26/05/2023	16	5	31.3%	35 weeks	Fulltime
Wicklow Training	Skills to Advance		1 Day Barista Course; 12th April Baltinglass Area Training	12/04/2022	13/04/2022	15	11	73.3%	2 days	Parttime
			Bar Skills (Unaccredited)	06/12/2022	07/12/2022	12	11	91.7%	2 days	Parttime
			Bar Skills Powerscourt Hotel (Unaccredited)	12/12/2022	13/12/2022	12	8	66.7%	2 days	Parttime
			EHAI - Primary Certificate in Food Safety Baltinglass Area Training	29/03/2022	05/04/2022	8	6	75.0%	1 weeks	Online
			Glenmalure Hotel Barista 21st March 2022	21/03/2022	04/04/2022	15	9	60.0%	11 days	Parttime

Provider	Prog. Category	Award Level	Title	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
			Professional Vegan Chef - Happy Pear	24/01/2022	23/01/2023	270	17	6.3%	52 weeks	Online
			WSET Level 1 Award in Wine	05/12/2022	21/04/2023	12	11	91.7%	100 days	Parttime
			WSET Level 1 Award in Wine - Powerscourt Hotel	12/12/2022	20/04/2023	12	8	66.7%	94 days	Parttime
Wicklow Training	Specific Skills Training		1 Day Barista Course; 6th April Marine House Wicklow Town	06/04/2022	07/04/2022	10	10	100.0%	2 days	Parttime
			Artisan Bread Making	13/01/2022	27/01/2022	10	10	100.0%	2 weeks	Parttime
			Artisan Bread Making	03/02/2022	17/02/2022	10	7	70.0%	2 weeks	Parttime
			Artisan Morning Pastries	24/02/2022	10/03/2022	10	7	70.0%	2 weeks	Parttime
			Artisan Morning Pastries	07/04/2022	21/04/2022	10	6	60.0%	2 weeks	Parttime
			Barista Skills Marine House Wicklow Thursday 21st April U18s	21/04/2022	21/04/2022	10	11	110.0%	1 days	Parttime
			Barista Skills Marine House Wicklow Thursday 3rd November U18s	03/11/2022	03/11/2022	10	13	130.0%	1 days	Parttime
			Barista Skills Marine House Wicklow, Thursday 27th January, Over 18s	27/01/2022	27/01/2022	10	9	90.0%	1 days	Parttime
			Barista Skills Marine House Wicklow, Wednesday 17th February, Over 18s	16/02/2022	16/02/2022	10	10	100.0%	1 days	Parttime
			Barista Skills Marine House Wicklow, Wednesday 26th January, Over 18s	26/01/2022	26/01/2022	10	8	80.0%	1 days	Parttime
			Barista Skills Shelton Abbey 28th October	28/10/2022	29/10/2022	10	9	90.0%	1 days	Parttime
			EHAI - Primary Certificate in Food Safety - Chef Development Programme	04/07/2022	09/07/2022	8	9	112.5%	6 days	Online
			EHAI - Primary Certificate in Food Safety - Culinary Traineeship	28/11/2022	29/11/2022	8	11	137.5%	2 days	Online
			One Pot Meals	26/01/2022	26/01/2022	10	7	70.0%	1 days	Parttime
			Professional Vegan Chef - Happy Pear	24/01/2022	23/01/2023	30	146	486.7%	52 weeks	Online
			Wicklow Whisk Summer Cookery Camp	19/07/2022	21/07/2022	10	9	90.0%	3 days	Parttime
			Wicklow Whisk Summer Cookery Camp	26/07/2022	28/07/2022	10	9	90.0%	3 days	Parttime
Wicklow Training	Traineeship Employed	Level 4 Certificate	Chef Development Programme (for those in employment)	20/06/2022	30/12/2022	12	9	75.0%	28 weeks	Parttime

Provider	Prog. Category	Award Level	Title	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
Wicklow Training	Traineeship Training	Level 4 Certificate	Bakery Traineeship Wicklow	03/10/2022	07/04/2023	14	8	57.1%	27 weeks	Fulltime
		Level 4 Certificate	Culinary Traineeship	03/10/2022	20/01/2023	12		0.0%	16 weeks	Fulltime
Wicklow Training	Bridging and Foundation Training		Barista Skills – SHORT COURSE	24/07/2023	24/07/2023	12	0	0.0%	1 days	Parttime
			Barista Skills Marine House Wicklow 20th March 2023 (Unaccredited)	20/03/2023	20/03/2023	12	10	83.3%	1 days	Parttime
			Barista Skills Marine House Wicklow April 2023 (Unaccredited)	24/04/2023	24/04/2023	12	12	100.0%	1 days	Parttime
			Barista Skills Marine House Wicklow February 2023	10/02/2023	10/02/2023	12	10	83.3%	1 days	Parttime
			Barista Skills Marine House Wicklow May 2023 (Unaccredited)	22/05/2023	22/05/2023	12	11	91.7%	1 days	Parttime
			Barista Skills Marine House Wicklow Under 18's Easter 2023 (Unaccredited)	04/04/2023	04/04/2023	12	12	100.0%	1 days	Parttime
Wicklow Training	FET Pathways from School		Barista Skills Glenart School Group 1 20th October - 4 Murphy	20/10/2023	20/10/2023	10	19	190.0%	1 days	Parttime
			Barista Skills Glenart School Group 2 27th October - 4 Hozier	27/10/2023	27/10/2023	10	21	210.0%	1 days	Parttime
			Barista Skills Marine House Wicklow Under 18's 26th June (Unaccredited)	26/06/2023	26/06/2023	12	12	100.0%	1 days	Parttime
			Barista Skills Marine House Wicklow Under 18's 27th June (Unaccredited)	27/06/2023	27/06/2023	12	13	108.3%	1 days	Parttime
			TY 1, CCM 6th November, Barista Skills:	06/11/2023	06/11/2023	10	18	180.0%	1 days	Parttime
			TY 2, CCM 17th November, Barista Skills:	17/11/2023	17/11/2023	10	21	210.0%	1 days	Parttime
			TY 3, CCM 20th November, Barista Skills:	20/11/2023	20/11/2023	10	19	190.0%	1 days	Parttime
			TY 4, CCM 24th November, Barista Skills:	24/11/2023	24/11/2023	10	13	130.0%	1 days	Parttime
Bray Inst of Further Education	PLC	Level 5 Certificate	Culinary Arts (Professional Cookery)	11/09/2023	24/05/2024	16	16	100.0%	35 weeks	Fulltime
		Advanced Certificate/Higher Certificate	Culinary Arts Advanced QQI Level 6 (Professional Cookery)	11/09/2023	24/05/2024	16	10	62.5%	35 weeks	Fulltime
		Level 5 Certificate	Food Science with Dietetics - Pre University (Food Science)	11/09/2023	24/05/2024	16	5	31.3%	35 weeks	Fulltime

Provider	Prog. Category	Award Level	Title	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
		Level 5 Certificate	Pastry, Baking & Barista (Professional Cookery)	11/09/2023	24/05/2024	16	14	87.5%	35 weeks	Fulltime
Wicklow Training	Skills to Advance		Bar Skills Powerscourt Hotel (Unaccredited)	01/02/2023	01/02/2023	12	10	83.3%	1 days	Parttime
		Level 4 Certificate	Professional Bartending Rathsallagh Country House	16/05/2023	25/07/2023	15	15	100.0%	10 weeks	Parttime
Wicklow Training	Specific Skills Training	Level 4 Certificate	Artisan Bread Bakery - Marine House	27/09/2023	04/10/2023	12	12	100.0%	1 weeks	Parttime
		Level 4 Certificate	Artisan Bread Bakery - Marine House 2 Day Course	29/09/2023	06/10/2023	12	11	91.7%	1 weeks	Parttime
			Artisan Bread Making - 1 Day Course	27/07/2023	27/07/2023	10	11	110.0%	1 days	Parttime
			Artisan Bread Making 1 Day Course	24/08/2023	24/08/2023	10	9	90.0%	1 days	Parttime
			Artisan Morning Pastries - 1 Day Course	10/08/2023	10/08/2023	10	0	0.0%	1 days	Parttime
			Artisan Morning Pastries 1 Day Course	23/08/2023	23/08/2023	10	11	110.0%	1 days	Parttime
		Level 4 Certificate	Artisan Pastry - Marine House Making 2 Day Course	05/10/2023	12/10/2023	10	10	100.0%	1 weeks	Parttime
		Level 4 Certificate	Artisan Pastry Making	21/09/2023	28/09/2023	10	11	110.0%	1 weeks	Parttime
		Level 4 Certificate	Barista and Cafe Skills	15/05/2023	07/07/2023	10	14	140.0%	8 weeks	Fulltime
		Level 4 Certificate	Barista Skills	21/08/2023	01/09/2023	12	12	100.0%	2 weeks	Fulltime
			Barista Skills Baltinglass	19/06/2023	23/06/2023	12	7	58.3%	1 weeks	Fulltime
		Level 4 Certificate	Barista Skills C&G Marine House	20/11/2023	01/12/2023	12	7	58.3%	2 weeks	Fulltime
			EHAI - Primary Certificate in Food Safety Rathsallagh Country House	02/05/2023	23/05/2023	10	13	130.0%	3 weeks	Online
		Level 4 Certificate	Level 2 Certificate in Culinary Skills Group 2 (City and Guilds)	12/09/2023	16/12/2023	12	0	0.0%	14 weeks	Parttime
		Level 5 Certificate	Pastry, Baking & Desserts	27/02/2023	31/03/2023	10	9	90.0%	5 weeks	Fulltime
		Level 5 Certificate	Pastry, Baking & Desserts	10/07/2023	18/08/2023	10	9	90.0%	6 weeks	Fulltime
Wicklow Training	FET Pathways from School		Barista Skills Avondale School 22 January	22/01/2024	22/01/2024	25	0		1 days	Parttime
			Barista Skills Avondale School 23 January	23/01/2024	23/01/2024	25	0		1 days	Parttime
			Barista Skills Avondale School 24 January	24/01/2024	24/01/2024	25	0		1 days	Parttime
			Barista Skills Avondale School 25 January	25/01/2024	25/01/2024	25	0		1 days	Parttime

Provider	Prog. Category	Award Level	Title	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
			Barista Skills Colaiste Raithin 2 February	02/02/2024	02/02/2024	25	0		1 days	Parttime
			Barista Skills Colaiste Raithin 29 January	29/01/2024	29/01/2024	25	0		1 days	Parttime
			Barista Skills Colaiste Raithin 30 January	30/01/2024	30/01/2024	25	0		1 days	Parttime
			Barista Skills St Kevins CC Dunlavin 11th April	11/04/2024	11/04/2024	25	0		1 days	Parttime
			Barista Skills St Kevins CC Dunlavin 12th April	12/04/2024	12/04/2024	25	0		1 days	Parttime
			Barista Skills St Kevins CC Dunlavin 22nd April	22/04/2024	22/04/2024	25	0		1 days	Parttime
			Barista Skills St Kevins CC Dunlavin 8th April	08/04/2024	08/04/2024	25	0		1 days	Parttime
			Barista Skills St Kevins CC Dunlavin 9th April	09/04/2024	09/04/2024	25	0		1 days	Parttime
Bray Inst of Further Education	PLC	Level 5 Certificate	Culinary Arts (Professional Cookery)	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Advanced Certificate/Higher Certificate	Culinary Arts Advanced QQI Level 6 (Professional Cookery)	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Level 5 Certificate	Food Science with Dietetics - Pre University (Food Science)	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Level 5 Certificate	Pastry, Baking & Barista (Professional Cookery)	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
Wicklow Training	Specific Skills Training	Level 4 Certificate	Barista Skills C&G Marine House	05/02/2024	16/02/2024	12	0		2 weeks	Fulltime
		Level 4 Certificate	Barista Skills C&G Marine House	04/03/2024	15/03/2024	12	0		2 weeks	Fulltime
		Level 4 Certificate	Barista Skills C&G Marine House	08/04/2024	19/04/2024	12	0		2 weeks	Fulltime
		Level 4 Certificate	Barista Skills C&G Marine House	06/05/2024	17/05/2024	12	0		2 weeks	Fulltime
		Level 4 Certificate	Barista Skills C&G Marine House	03/06/2024	14/06/2024	12	0		2 weeks	Fulltime
		Level 4 Certificate	Barista Skills C&G Marine House	08/07/2024	19/07/2024	12	0		2 weeks	Fulltime
		Level 4 Certificate	Barista Skills C&G Marine House	05/08/2024	16/08/2024	12	0		2 weeks	Fulltime
		Level 4 Certificate	Barista Skills C&G Marine House	02/09/2024	13/09/2024	12	0		2 weeks	Fulltime
		Level 4 Certificate	Barista Skills C&G Marine House	07/10/2024	18/10/2024	12	0		2 weeks	Fulltime
		Level 4 Certificate	Barista Skills C&G Marine House	04/11/2024	15/11/2024	12	0		2 weeks	Fulltime
		Level 4 Certificate	Barista Skills C&G Marine House	02/12/2024	13/12/2024	12	0		2 weeks	Fulltime

11.9 Tourism, Sport & Leisure – FET Courses (2022-2025)

Provider	Prog. Category	AwardLevel	Title	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
Blessington FEC	BTEI Groups	Level 5 Certificate	Tourism with Business Level 5 -Blessington BTEI	05/10/2022	21/12/2022	14	3	21.4%	11 weeks	Parttime
Bray Institute of Further Education	PLC	Advanced Certificate/Higher Certificate	Business Tourism Advanced	12/09/2022	26/05/2023	16	8	50.0%	35 weeks	Fulltime
		Level 5 Certificate	Football Coaching & Fitness Studies	12/09/2022	26/05/2023	24	9	37.5%	35 weeks	Fulltime
		Advanced Certificate/Higher Certificate	Personal Trainer, Strength and Conditioning (Sports, Recreation & Exercise)	12/09/2022	26/05/2023	24	9	37.5%	35 weeks	Fulltime
		Level 5 Certificate	Restaurant & Bar Management (Tourism with Business)	12/09/2022	26/05/2023	16	13	81.3%	35 weeks	Fulltime
		Level 5 Certificate	Sport Injury & Soft Tissue Massage	12/09/2022	26/05/2023	16	7	43.8%	35 weeks	Fulltime
		Level 5 Certificate	Sport, Exercise and Fitness Instruction (Sports, Recreation & Exercise)	12/09/2022	26/05/2023	24	22	91.7%	35 weeks	Fulltime
		Advanced Certificate/Higher Certificate	Tour Guiding	12/09/2022	26/05/2023	16	0	0.0%	35 weeks	Fulltime
		Level 5 Certificate	Tourism with Airline Studies	12/09/2022	26/05/2023	16	2	12.5%	35 weeks	Fulltime
		Level 5 Certificate	Tourism, Reception & Event Management (Tourism with Business)	12/09/2022	26/05/2023	16	8	50.0%	35 weeks	Fulltime
Wicklow Training	Traineeship Training		Track & Trail Guide - Baltinglass	08/11/2022	09/03/2023	15	8	53.3%	17 weeks	Fulltime
Wicklow Youthreach	Youthreach	Level 4 Certificate	Sports and Recreation Level 4 Youthreach	29/08/2022	25/08/2023	10	13	130.0%	52 weeks	Fulltime
		Level 4 Certificate	Sports and Recreation Level 4 Youthreach YR 2	29/08/2022	16/06/2023	10	0	0.0%	42 weeks	Fulltime
Blessington FEC	BTEI Groups	Level 5 Certificate	Tourism with Business Level 5 -Blessington BTEI	11/01/2023	30/05/2023	14	9	64.3%	20 weeks	Parttime

Provider	Prog. Category	AwardLevel	Title	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
Blessington FEC	BTEI Groups	Level 5 Certificate	Tourism with Business Level 5 -Blessington BTEI	13/09/2023	19/12/2023	14	0	0.0%	14 weeks	Parttime
Bray Institute of Further Education	PLC	Advanced Certificate/Higher Certificate	Business Tourism & Event Management Advanced (Tourism with Business)	11/09/2023	24/05/2024	16	2	12.5%	35 weeks	Fulltime
		Advanced Certificate/Higher Certificate	Hospitality & Business Management (Tourism with Business)	11/09/2023	24/05/2024	24	7	29.2%	35 weeks	Fulltime
		Advanced Certificate/Higher Certificate	Personal Trainer, Strength and Conditioning (Sports, Recreation & Exercise)	11/09/2023	24/05/2024	24	14	58.3%	35 weeks	Fulltime
		Level 5 Certificate	Restaurant & Bar Management (Tourism with Business)	11/09/2023	24/05/2024	16	9	56.3%	35 weeks	Fulltime
		Level 5 Certificate	Soccer Coaching and Sports Management (Sports, Recreation and Exercise)	11/09/2023	24/05/2024	24	21	87.5%	35 weeks	Fulltime
		Level 5 Certificate	Sport Injury & Soft Tissue Massage (Sports, Recreation and Exercise)	11/09/2023	24/05/2024	16	11	68.8%	35 weeks	Fulltime
		Level 5 Certificate	Sport, Exercise and Fitness Instruction (Sports, Recreation & Exercise)	11/09/2023	24/05/2024	24	26	108.3%	35 weeks	Fulltime
		Level 5 Certificate	Tourism with Airline Studies	11/09/2023	24/05/2024	16	6	37.5%	35 weeks	Fulltime
		Level 5 Certificate	Tourism, Reception & Event Management (Tourism with Business)	11/09/2023	24/05/2024	16	6	37.5%	35 weeks	Fulltime
Wicklow Training	Traineeship Training		Track & Trail Guide: Wicklow	06/11/2023	07/03/2024	12	11	91.7%	17 weeks	Fulltime
Blessington FEC	BTEI Groups	Level 5 Certificate	Sports, Recreation and Exercise	10/09/2024	20/12/2024	15	0		14 weeks	Parttime
Bray Inst of Further Education	PLC	Advanced Certificate/Higher Certificate	Hospitality & Business Management (Tourism with Business)	09/09/2024	23/05/2025	24	0		35 weeks	Fulltime

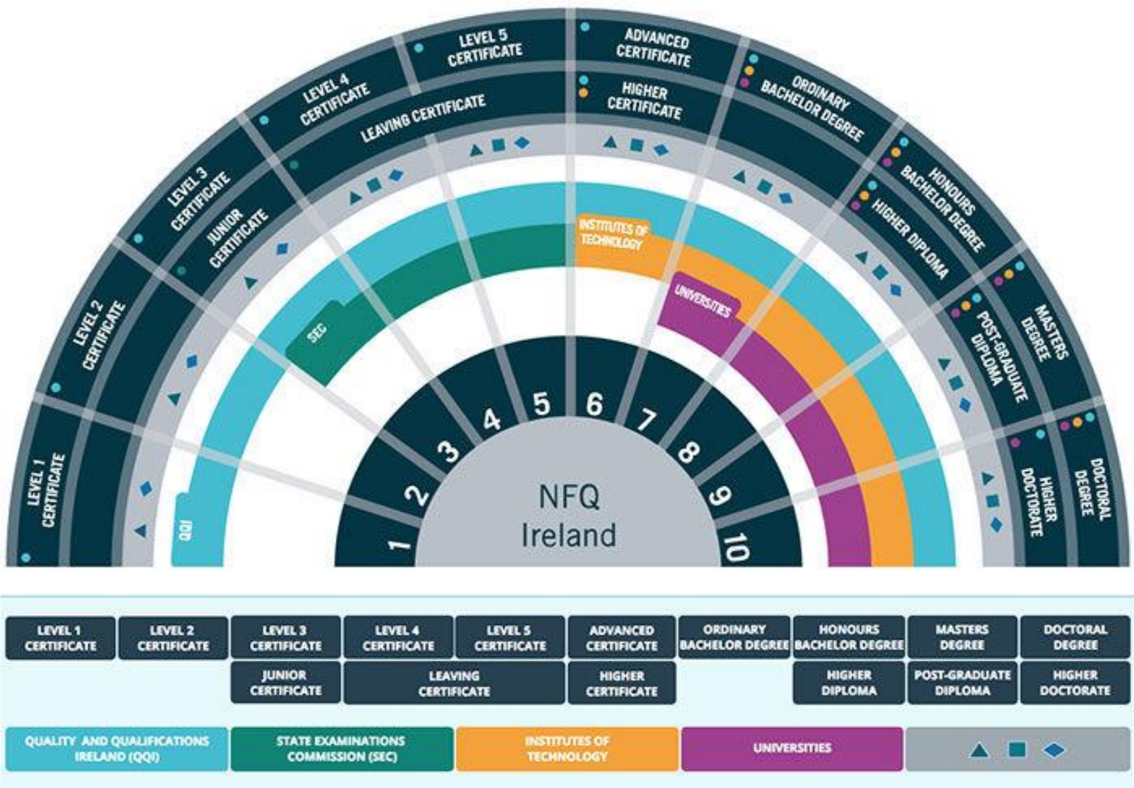
Provider	Prog. Category	AwardLevel	Title	Start	Finish	Capacity	Total Filled Places	Demand	Duration	Type
Bray Institute of Further Education	PLC	Advanced Certificate/Higher Certificate	Personal Trainer, Strength and Conditioning (Sports, Recreation & Exercise)	09/09/2024	23/05/2025	24	0		35 weeks	Fulltime
		Level 5 Certificate	Restaurant & Bar Management (Tourism with Business)	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Level 5 Certificate	Soccer Coaching and Sports Management (Sports, Recreation and Exercise)	09/09/2024	23/05/2025	24	0		35 weeks	Fulltime
		Level 5 Certificate	Sport Injury & Soft Tissue Massage (Sports, Recreation and Exercise)	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Level 5 Certificate	Sport, Exercise and Fitness Instruction (Sports, Recreation & Exercise)	09/09/2024	23/05/2025	24	0		35 weeks	Fulltime
		Level 5 Certificate	Tourism with Airline Studies (Tourism with Business)	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
		Level 5 Certificate	Tourism, Reception & Event Management (Tourism with Business)	09/09/2024	23/05/2025	16	0		35 weeks	Fulltime
Wicklow Training	Traineeship Training		Track & Trail Guide: Wicklow	04/11/2024	28/02/2025	12	0		17 weeks	Fulltime

11.10 National Framework of Qualifications (NFQ)

The National Framework of Qualifications (NFQ) is a ten-level system that provides a way to compare qualifications and ensure that they are recognised nationally and abroad. Each of the ten levels shown in Figure 11.1 describe the Irish qualifications system and each level is based on national standards of skill, knowledge and ability. The NFQ system places the Leaving Certificate at level 5 and the Leaving Cert Applied at level 4. From the Leaving Certificate, students are able to apply for courses from level 5 to level 8 (level 9 and 10 are MA and PhD courses for which a student needs a level 8 qualification).

Further Education and Training (FET) providers offer a wide variety of life-long education options to anyone over 16 years of age. FET includes apprenticeships, traineeships, Post Leaving Cert (PLC) courses, community, and adult education as well as core literacy and numeracy services. FET courses and programmes are provided through the Education and Training Board (ETB) network throughout the country as well as through other local providers including online through SOLAS' eCollege. FET courses are provided at levels one to six on the National Framework of Qualifications (NFQ).

Figure 11.1: National Framework of Qualifications Framework



Comhairle Contae Chill Mhantáin
Wicklow County Council

Contact Us

Planning, Economic & Rural Development
economicdevelopment@wicklowcoco.ie

Wicklow County Council
County Buildings
Station Road,
Wicklow
Co. Wicklow
A67 FW96

KPMG Future Analytics