

Fingal Skills Strategy





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Foreword



As Mayor of Fingal, I would like to congratulate and thank the Fingal Skills Advisory Group and the staff of the Council for producing the Fingal Skills Strategy. I would especially like to thank the chair of the group, Siobhan Kinsella, for her determination and leadership on this project. As the local authority with the youngest population in Ireland, Fingal has an opportunity to embed this skills strategy amongst industry and academia, aligning the supply and demand of skills over the coming seven years.

From the analysis contained in the Strategy, we know that there will be a supply deficit of approximately 7,600 workers annually in Fingal over the coming seven years. The study also shows that these skills will be demanded across the whole occupational and educational attainment spectrums. The Fingal Skills Strategy will put the County in a position to close this gap and to ensure Fingal remains a primary location to invest, or grow a business, in.

Cllr Anthony Lavin, Mayor of Fingal



The population of Fingal has almost doubled in the past 25 years and as a result, the creation of sustainable jobs is a key focus area for Fingal County Council. Between 2011 and 2016, employment in the County increased by 15%, with the majority of these vacancies being filled by Fingal residents. Nonetheless, there are concentrations of people across the County who are significantly disengaged from the labour market. The Fingal Skills Strategy sets out to engage these people and upskill them to a position where they can capitalise on future vacancies in their locality.

Further, the Council acknowledges that the availability of skilled workers, particularly in high value adding sectors, is key to maintaining competitiveness and attracting investment in to the County. This strategy will also ensure a sufficient pipeline of workers will exist to meet the demands of these growth sectors. This innovative project has brought together education providers, policy makers and industry to develop the Country's first county specific skills strategy which will be crucial to positioning Fingal as an attractive place for FDI, but also from which indigenous companies can base. I would like to thank the Fingal Skills Advisory Group for the time and endeavour that has been invested in bringing the Strategy this far and I look forward to working with them as the process moves to implementation.

Paul Reid, Chief Executive of Fingal County Council



The process of developing this Skills Strategy has been an interesting and invigorating journey with a dedicated group of collaborating partners involved in the many constituent parts of the Skills Sector. It has been a journey of discussion, enlightenment and eventually agreement in an effort to put Fingal at the forefront of integrated local skills delivery on a national basis. The part played by all members of the Advisory Group representing Industry, Higher Education, Further Education, State and Semi-State cannot be underestimated.

In fact, the joined up approach and willingness to come together in an effort to solve and collaborate has been a characteristic throughout the process. Our consultants RSM have done an outstanding job of identifying the skills gaps and the methodology used in the development of the Fingal Skills Strategy can now be replicated nationally. The implementation of this Strategy has the ability to maintain the strong recent economic growth of Fingal and Dublin into the future. I am sure the implementation of the Strategy will be equally as successful as its development and that partners in the delivery of Skills will again be more than willing to play their part.

Siobhan Kinsella, Chairperson of Fingal Skills Strategy Advisory Group

1. Introduction



Fingal County Council (FCC) is the local authority for North and West Dublin. In December 2015, the Council adopted the Fingal Local Economic and Community Plan (LECP) 2016 – 2020.

The Plan includes a range of actions designed to foster economic growth in the County over the medium-term. Among the key actions set out in the Plan is the development of a skills strategy for the local economy.

Fingal is the fastest growing County in Ireland with a population of 296,214 as of Census 2016. The local economy has been performing well and is recovering rapidly from the downturn. Into the medium-term it is important to ensure that the County has the skills necessary to capitalise on emerging employment opportunities. This project works towards ensuring that there will be an adequate supply of sufficiently skilled labour available in Fingal over the coming years to maximise potential growth in key areas.

RSM was appointed by Fingal County Council (FCC) to develop this Medium–Term Skills Strategy for Fingal. Several skills strategies have been developed at a national, regional and sectoral level, for example, the Expert Group on Future Skills Needs (EGFSN) advises the Irish Government on current and future skills needs of the economy and on other labour market issues that impact on Ireland’s enterprise and employment growth. The EGFSN has a central role in ensuring that labour market needs for skilled workers are anticipated and met and has produced numerous strategies focused on particular sectors including: Biopharma; Food and Drink; Hospitality; Big Data and Analytics.

In addition, SOLAS through its SLMRU (Skills and Labour Market Research Unit), publishes research and reports that facilitates development and review of policy and practice in the further and higher education sectors as well as other related sectors and has produced reports including, National Skills Bulletin; Regional Labour Market Bulletin; and a Regional Skills Analysis for the Dublin Region.

The Fingal Skills Strategy represents the first cross sector skills strategy to be developed at Local Authority level in Ireland, reflecting the changing role of the local authorities across Ireland. As such, there is a role for the local authority to play in sharing best practice in: presenting this skills strategy as a road map for future skills development; and sharing lessons as they arise from successful implementation of the strategy.

METHODOLOGY

The main work stages involved in the delivery of this strategy are organised in two phases.

Phase 1: Baseline Study of Existing Employment Landscape and Skills Supply

This phase focused on the development of the baseline (i.e. the current situation in Fingal) in relation to the demand for and supply of skills. This phase used desk-based research, company interviews, stakeholder consultation and in-depth analysis to develop this baseline report on the County.



Literature Review – a review of over 60 documents including national and regional policy and strategy. The review considered documents in relation to skills and sectors relevant to the Fingal Region, this stage informed subsequent elements of the methodology (i.e. topic guides/questionnaires).

Desk Based research – a comprehensive desk-based review to gather information on the current economic context within Fingal and the four discrete geographic areas subject to availability of data at this level; the current employment landscape within Fingal; and the current level and profile of skills supply.



Consultation with over 20 relevant stakeholders including representatives of national and local organisations including policy makers, education and training providers and industry representative organisations.

Company consultation (including telephone interviews, online survey and workshops):
Consulted with 58 companies in the Fingal County Council area

In-depth analysis: Analysis of the information gathered at all stages of the Phase 1 methodology

Reporting: Development of robust baseline report setting out current employment landscape and skills base in Fingal.

Phase 2: Model Development and Projecting Growth

To provide estimates of the replacement and expansion demand across each occupation and sector group in Fingal for each year to 2023, RSM developed a skills forecasting model. This used data trends and projections to estimate the expected sectoral growth within Fingal over the medium-term and within this the scale of demand for skills, by occupation, role and considering both expansion and replacement demand. It also sought to explain the main drivers of sectoral employment and to account for any differences that arise between Fingal and the national picture. Skills demand was reported under three separate scenarios:

baseline level of activity which is consistent with existing forecasts from the Department of Finance for employment growth.

This scenario is then varied to produce an optimistic scenario where the overall growth rate is higher.

A further variation is considered: a pessimistic scenario where the overall growth rate in the Irish economy would be adjusted downwards and changes made to the sectoral balance of the

economy to reflect a move back towards the low-growth conditions of around 2011.

To validate and 'sense check' the findings of the modelling exercise, the team engaged with an Advisory Group to test approaches and findings. It included representation from statutory bodies, business sector representatives and skills supply side representatives. The group includes business representatives from the transport and logistics sector, retail and hospitality sector, agri-food sector and SMEs. Members of the Advisory Group provided a means of validation - allowing our team to test proposed approaches and assumptions as well as emerging findings.



Using results from the model, for each of the key sectors and occupation groups in Fingal, a labour market balance sheet has been developed. This details demand by sector and by occupation, current skills supply available to meet the demand, and an estimate of the gap between supply and demand:



Demand data comes from the modelling exercise described above;

Supply information for the Higher Education Institutions, Further Education Institutions and other Training providers was collated from a variety of sources including: individual educational institutions' official websites, online prospectuses and external websites (such as: <https://www.academiccourses.com/>, <http://www.educationinireland.com/en/>, <https://www.courses.ie/>, <https://www.fetchcourses.ie/>). Local providers (including TU Dublin Blanchardstown (TUD - B) and Dublin City University (DCU)) also provided some specific information about their provision.

We also consulted with sector representatives (of the key sectors in Fingal) and with local education and training providers to test findings by sector and the emerging recommendations.

Acknowledgements

RSM would like to acknowledge the support and contribution of the Economic Enterprise and Tourism Development team in Fingal County Council in developing this strategy. In addition, RSM acknowledges the valuable contributions of the advisory group members (comprising a variety of sectoral interests from education and training providers, local business leaders and the Department of Social Protection) which was established to inform the development of the strategy. We also appreciate the engagement of local businesses and a wide range of stakeholders in participating in the various strands of consultation and for sharing information and views with us.

Structure of the Report

This document includes the summary of recommendations, presented in an Action Plan.

Other detailed working papers/material have been shared with Fingal CC and the Advisory Group as part of the process of developing this plan.

2. Overview of Fingal’s Key Sectors



This section sets out a high-level profile of the businesses in Fingal focusing particularly on the sectors which are of importance to Fingal and this sets the scene for the development of the model which forecasts skills demand in the County.

2.1 Key Sectors Identified in Local Policies and Strategies

Locally, the Fingal Development Plan 2017-2023 (Fingal County Council, 2017) and the new Local Economic and Community Plan (LECP) (Fingal County Council, 2016), commit to implement local economic policies in line with Enterprise 2025, as follows:



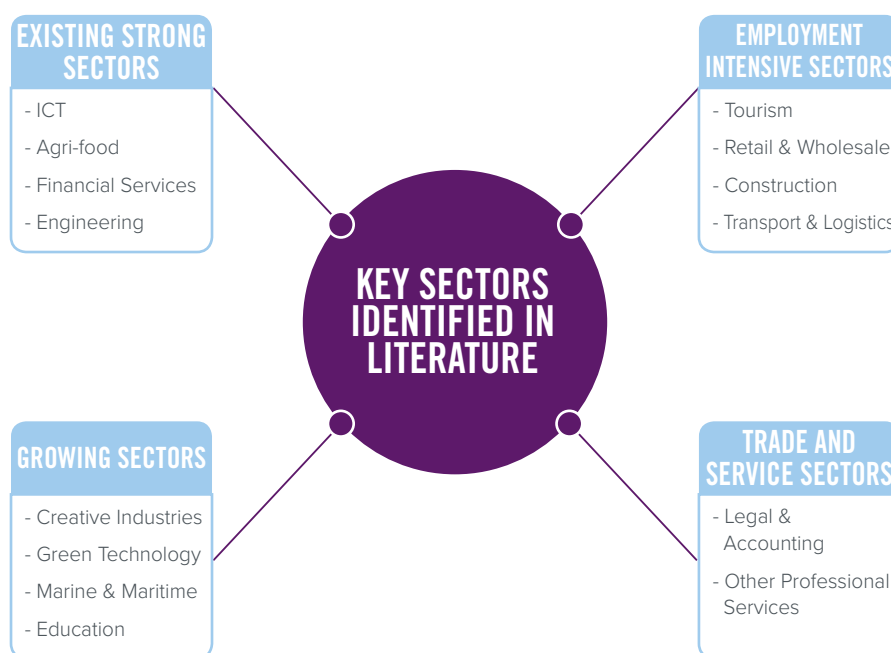
Building on Strengths: building on the existing strong industries (e.g. ICT, Agri-food, Financial Services, Engineering etc.). The strategy aims to increase employment in these sectors by 60,000 to make employment in these sectors 345,000 by 2020;

Transforming Employment Intensive Sectors: This includes sectors such as Tourism, Retail and Wholesale, Construction, Transport and Logistics etc. These sectors are primarily locally trading companies. The strategy aims to increase employment by over 100,000 to almost 1 million by 2020 across all these sectors;

Realising Untapped Potential: This includes sectors such as creative industries, green technology, marine and maritime, education etc. These sectors are normally populated by small-scale, Irish-owned and regionally dispersed. The Strategy aims to increase employment in these sectors by 40,000 by 2020.

Traded Services and Activities: This includes sectors such as legal and accounting, and other professional services etc. The strategy aims to increase employment in these sectors by 30,000 by 2020.

Key Sectors Identified in Literature



Source: Fingal Development Plan 2017-2023 (Fingal County Council, 2017) & Local Economic and Community Plan (LECP) (Fingal County Council, 2016)

2.2 Key Sectors Identified by the Statistics

Building on the information on the key sectors identified in the literature, the statistics for the Fingal County region show the breakdown of businesses within the region by NACE REV 2 sector.

Key Sectors Identified by the Data

NACE REV 2 Sector	No. of Businesses	% of Businesses
Wholesale and Retail Trade, Repair of Motor Vehicles	2,041	24.6%
Accommodation and Food Services	731	8.8%
Other Service Activities	681	8.2%
Health and Social Work	638	7.7%
Professional, Scientific and technical	559	6.7%
Transport and Storage	508	6.1%
Manufacturing	487	5.9%
Agriculture, Forestry and Fishing	473	5.7%
Admin and Support Service	409	4.9%
Construction	380	4.6%
Arts, Entertainment and Recreation	322	3.9%
Education	296	3.6%
Information and Communication	267	3.2%
Financial and Insurance Services	187	2.3%
Public Administration and Defence, Compulsory Social Security	148	1.8%
Real Estate Activities	128	1.5%
Water Supply, Sewage, Waste Management and Remediation Activities	32	0.4%
Electricity, Gas, Steam and Air Condition Supply	17	0.2%
Mining and Quarrying	7	0.1%
TOTAL	8,311	

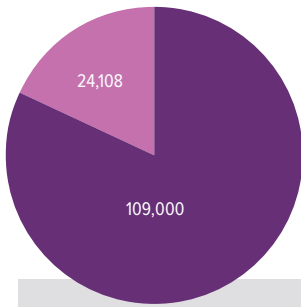


2.3 Business Demography by Size

Business demography in Fingal is characterised, as with all of Ireland, by a small number of very large employers and a high volume of SMEs. In Fingal this is very marked: the top 25 employers in the county only represent 0.3% of all businesses in Fingal but represent 17.9% of all employees. This contrasts with the 98% of businesses which are classed as SMEs which employ 109,000 people in the county but are made up of small companies employing 10 or fewer staff. The diagram below illustrates the profile.

Business Demography by Size

APPROXIMATE NUMBER OF EMPLOYEES IN FINGAL



SMALL & MEDIUM BUSINESSES
8,286 Companies

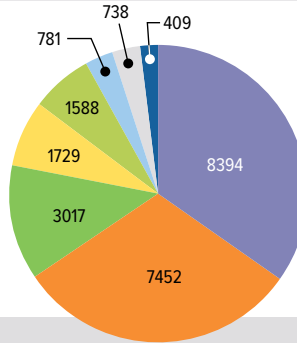
LARGE BUSINESSES
25 Companies

TOTAL NUMBER OF BUSINESSES BASED IN FINGAL
8,311

Estimates developed using Dublin Region statistics then profiled for Fingal. RSM working with CSO to access Fingal specific data.

NUMBER OF BUSINESSES = HIGH
APPROX % OF ALL BUSINESSES IN FINGAL = 98%
APPROX NUMBER OF EMPLOYEES = 109,000
APPROX % OF EMPLOYEES IN FINGAL = 82%
NUMBER OF EMPLOYEES PER BUSINESS = LOW

LARGE BUSINESSES LOCATED IN FINGAL



TECHNOLOGY
6 Companies

AVIATION
4 Companies

FOOD & BEVERAGE
4 Companies

RETAIL
4 Companies

HEALTHCARE/ PHARMACEUTICAL
3 Companies

TRANSPORT
1 Company

CONSTRUCTION
2 Companies

RECORDS MANAGEMENT
1 Company

TOTAL NUMBERS OF COMPANIES = 25
% OF BUSINESSES IN FINGAL = 0.3%
NUMBER OF EMPLOYEES = 24,108
% OF EMPLOYEES IN FINGAL = 17.9%
NUMBER OF EMPLOYEES PER BUSINESS = HIGH

2.4 Key Sectors Identified by Discrete Area

It is important to note that Fingal is not a homogeneous area; there are geographic variations within the business demography across the county. As a result we have divided the county into four discrete areas. These areas have different key sectors which are important to their local economies. The diagram below provides an overview of the main geographic variances.



Fingal Businesses Demography Geographic Variances



BALBRIGGAN AND HINTERLAND
 Key Sector: agriculture, forestry and fishing reflective of the business demography in Balbriggan, with strong clusters of food and beverage/agri-food businesses.

SWORDS AND HINTERLAND
 Key Sector: transport and communications industry reflects the strong aviation sector in the area, with the presence of Dublin Airport in Swords.

HOWTH - MALAHIDE
 Key Sector: commerce and trade industry indicative of the retail centric business demography of the area

DUBLIN 15
 Key Sector: building and construction; manufacturing industries; and professional services indicative of the enterprise clusters in the area, and the specialised clusters of Pharmaceutical and High Tech R&D industries

Source: Data based on information included in the Fingal Socio Economic Profile April 2015

From the analysis above, we have identified the core sectors which are relevant to the Fingal Economy. They include the following (the order in which these are listed has no significance):

Commerce and Trade (covering NACE Rev 2 Categories; G Wholesale and Retail Trade & I: Accommodation and Food Services). Within this we have considered Retail and Hospitality/ Tourism.

Professional Services (covering NACE Rev 2 Categories: J Information and Communication, K Financial and Insurance Activities, L Real Estate Activities, M Professional, Scientific and Technical Activities, N Administrative and Support Service Activities);

Transport and Logistics (covering NACE Rev 2 Category: H Transport and Storage);

Manufacturing / Biopharma (covering NACE Rev 2 Category: C Manufacturing);

Agri-Food (covering NACE Rev 2 Category: A Agriculture, Forestry and Fishing); and

Construction (covering NACE Rev 2 Category: F: Construction);

These sectors are described in more detail in the following sections.



3. Fingal Skills Strategy - Engagement Models

While Chapters 5 to 10 outline specific actions for each economic sector included in the analysis, common actions of engagement will also be taken in order to firstly engage sector leads, and secondly to increase the level of course provision. In order to meet the objectives of this strategy, and to deliver the actions committed to below, there will be multi-stakeholder engagement and collaboration will be an imperative. To this end, FCC have devised two separate models of engagement:

3.1 Engagement Model for Sector Leads

In the case of each sector analyzed in Chapters 5 to 10, FCC are committing to work with individual sectors to make each sector more attractive to potential employees to support the development of the learning infrastructure and career paths. In order to do so, the following model will be employed:



- a) Fingal CC to meet with sector representatives to identify key issues in attracting employees.
- b) Fingal CC to work with sector representatives to develop an action plan to help improve the attractiveness of the sector, raise awareness of careers, etc.
- c) Sector to lead implementation of the action plan.
- d) FCC to monitor progress and provide updates to the sector representatives.



3.2 Engagement Models to Increase Course Provision

This section sets out actions in relation to requirements for increased course provision. These actions fall into two distinct groups and are presented in generic form below:



3.2.1 Actions RE: New Course Provision

- a) **TRAINING PROVIDER** to establish what resources (trainers, facilities, accreditation, etc.) required to provide new course provision for role(s) and whether it can provide resources to offer course provision in role(s).
- b) **TRAINING PROVIDER** to confirm whether new courses can be made available and if so, confirm the number of places available, in which form (i.e. through training centre provision / apprenticeship / traineeship) and when/where the new provision will come online. Also, the likely supply for Fingal CC area. Also constraints / feasibility /viability of delivering new provision taking into account available pipeline and barriers /enablers, funding, etc.
- c) **TRAINING PROVIDER and SECTOR / EMPLOYER REPRESENTATIVES** to raise awareness of potential careers including specific local gaps in supply.
- d) **TRAINING PROVIDER and SECTOR / EMPLOYER REPRESENTATIVES** to promote the courses within Fingal and ensure that marketing is targeted there.

3.2.2 Actions RE: Increasing Places on Existing Courses

- a) FCC to provide a summary of the evidence of the need for additional places on the named course(s) in the Fingal area to **TRAINING PROVIDER**
- b) FCC to meet with **TRAINING PROVIDER** to lobby for an increase in the named course(s) and for these to be directed towards addressing Fingal needs.
- c) **TRAINING PROVIDER** to confirm whether new places can be made available and if so, confirm the course(s) that can be expanded, the number of places available, and when/ where the new provision will come online. Also, the likely supply for Fingal CC area. Also, the likely supply for Fingal CC area. Also constraints / feasibility / viability of delivering new provision taking into account available pipeline and barriers /enablers, funding, etc.
- d) **TRAINING PROVIDER and SECTOR / EMPLOYER REPRESENTATIVES** to raise awareness of potential careers including specific local gaps in supply.
- e) **TRAINING PROVIDER and SECTOR / EMPLOYER REPRESENTATIVES** to promote the courses within Fingal and ensure that marketing is targeted there.

These actions reflect a willingness by training providers (in particularly locally) to explore the potential of new places/courses. However, whilst capacity exists in many instances and providers have agility to scale up provision, they could not guarantee to offer new provision without robust evidence of a pipeline of students/participants hence the requirement for a feasibility/viability step and a role for employer/sector representatives to raise awareness of gaps / potential career options leading to an uptake in new provision.

With regards to provision through DDLETB and CDETb, it is important to note that whilst provision may be available in a training centre outside the area, distance may be a barrier to cost and therefore, whilst it is possible for the ETB to offer the provision locally (within Fingal), the case must be made – to provide robust evidence of local demand.

Therefore, key to the successful implementation of this strategy is ensuring that appropriate groundwork takes place so that industry leads on promoting attractiveness of sector(s), (career pathways, flexible working, interesting jobs, etc.) and that national sector skills strategies are in place thus helping to ensure that there is a developing pipeline/demand of requisite calibre which helps to build the case to training providers to offer / increase specific courses. Upskilling current staff should also be considered in parallel (which ties in to the Workforce Development Strategy). With this preparation, providers will then be better equipped to consider the feasibility of increasing provision, but this needs to be considered in the context of any constraints (e.g. physical number of workstations (though modifications to timetabling and facility utilisation could increase this); national caps on the number of apprenticeships by SOLAS (though case could be made to them to increase provision)). Funding is also a consideration: large increases in provision may require capital investment and that would also need to be planned for, if required. The timeline to create new provision would also need to be factored in, including where co-creation with industry is recommended.



3.3 Skills Strategy Implementation Group

Driving and monitoring the implementation of the recommendations of this strategy will be challenging. It will require input and co-ordination between a range of stakeholders – likely to include many of those who have been involved in the Advisory Group overseeing and ensuring implementation of the strategy. This will include but not be limited to:

- *local authorities and agencies (such as Fingal County Council, the LEO);*
- *employers and industry representatives from all core sectors in Fingal (construction, agri-food);*
- *representation from education and training providers (such as Institute of Technology Blanchardstown, Baldoyle Training Centre, Dublin City University, Dublin Dun Laoghaire Education and Training Board and SICAP implementers, Skillnets). In the first instance, it will be important to include those based locally which provide local skills supply; there may also be potential to consider including other providers in neighbouring areas who could have a role to play in providing additional supply as required; and*
- *other relevant stakeholders such as the Dublin Regional Skills Forum.*



The diverse composition of this group will ensure that all relevant stakeholders from interest groups (both demand and supply side) are represented and that the knowledge, experience and networks of members contribute to the implementation of the strategy (for example DCU experience in relation to pathways to skills acquisition).

The group should be provided with an updated Terms of Reference which clearly specifies its role in implementing and monitoring the recommendations in this report and that the role of members in acting as champions for the strategy. Indicative proposals for the Terms of Reference for the Implementation Group include:

- *ownership and responsibility for overseeing the operationalisation of the Fingal Skills Strategy;*
- *support and actively promote on-going engagement between enterprises, local authority and education and training providers*
- *seek to ensure education and training provision aligns with industry needs;*
- *seek to ensure that education and training provision offers pathways to skills acquisition by co-ordinating skills offered in a complementary manner and minimising duplication – recognising the wider skills ecosystem and continuum of provision;*
- *regularly monitor and report on progress against the action plan arising from recommendations in the strategy;*
- *review emerging and future skills needs development (e.g. emergence of modern technology and new sectors) and revise actions accordingly.*

A key challenge associated with the development of the group will be securing representation from industry. In establishing the terms of reference and operating procedures of the group it is important to minimise the burden on industry representatives.

Some approaches to consider to achieve this might be to consider frequency of meetings (quarterly rather than monthly for example), involving sector representatives only at relevant meetings or parts of meetings. It may also be necessary to put in place mechanisms to support industry representatives from the same sector in attending as there may be reluctance to be part of the same group due to wariness about competitors including staff poaching and market intelligence.

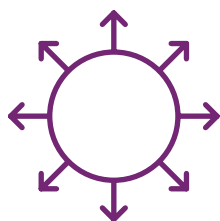
3.4 Skills Strategy Implementation Plan

Fingal County Council has a significant role to play in:

- *overseeing the development of an implementation plan to deliver on recommendations arising from this report;*
- *co-ordinating the work of the many stakeholders and strands of activity required to ensure that skills supply meets local business and emerging regional and national needs. Regional needs reflect Fingal’s position including the D15 Enterprise Zone (primarily zoned for Office, Research & Development, High Technology Manufacturing, Industrial, General Enterprise and Employment) with the potential to attract FDI and as the fastest growing local authority area in Europe;*
- *providing a secretariat function for the Skills Implementation Group;*
- *continuing to fulfil the role of catalyst to ensure that all relevant stakeholders remain committed to the delivery of the skills strategy and implementation plan. Fingal CC is uniquely placed to fulfil this role with good working relationships with all of the stakeholders but also an impartial independent organisation in the area of skills. This includes both supply side (education providers HE, FET and Vocational Training both locally and in neighbouring areas as appropriate) and demand side (employers, industry representative groups, sector representatives, etc.).*



4. Current and Future Skills Gaps in Fingal County



4.1 Overall Demand for Skills in Fingal

A key part of this report was to project the replacement and expansion demand for skills across each occupation in Fingal for each year to 2023. The demand was projected using three scenarios:

- 1) **BASELINE:** Assumes growth in line with Department of Finance employment growth
- 2) **OPTIMISTIC:** Assumes that the growth rate never drops below 2.6% (that is, 1 percentage point above long-term trend growth).
- 3) **PESSIMISTIC:** Assumes lower growth than present dropping to 2011 levels.

To validate and 'sense check' the findings of the modelling exercise the team used two approaches:

- **Testing approaches and findings with the Advisory Group** – A project advisory group was established to support the project. It included representation from statutory bodies, business sector representatives and skills supply side representatives. Our team tested worked with the Advisory Group to test findings particularly in the context of their sector specific local knowledge.
- **Conducting Sector Consultations** – we also completed consultations with other industry representatives. This was primarily to sense check specific assumptions and findings by sector arising from the model. The table below shows the key findings for each of the three scenarios.

Demand across the three scenarios (figures in '000's)(2017 - 2023)

	Baseline	Optimistic	Pessimistic
Expansion Demand	27.1	36.8	4.6
Replacement Demand	67.0	69.2	61.6
TOTAL DEMAND	94.1	106.0	66.4

Source: RSM (2017)

As can be seen from the table above, the overall demand (for any of the scenarios) is primarily driven by **replacement demand** (that is, the demand for workers to fill vacancies left by people changing occupation or leaving the labour force altogether) as opposed to **expansion demand** (i.e. new jobs created). The scale of demand varies from around 66,000 to 106,000 up to 2023 across the three scenarios.

4.2 Skills Gaps by Sector

Fingal’s economy is diverse and vibrant. Within the County, six core sectors dominate the economy. The analysis carried out shows specific skills gaps across these sectors in Fingal by occupation (see table below). This illustrates the scale of the gap between demand and supply and that across all the core sectors in Fingal there are critical skills shortages. This demonstrates a gap of up to around **7,600 per annum**: the largest gaps by occupation type are: **elementary (almost 1,961, 25.8%), sales and customer services (1,441, 19.0%), professional / associate professional and technical (1,208, 15.9%) and skilled trades (1,120, 14.7%)**. By sector, the largest gaps are in **Commerce and Trade (3,176, 41.8%) and Professional Services (1,858, 24.4%)**. Across all sectors and occupations, the largest gap is **Commerce and Trade / elementary occupations (1,231, 16.2%)**.

Critical Skills Gaps by Sector and Occupation - Per Annum

Sector	Occupation: Gap between supply and demand up to 2023 per annum								
	Managers, Directors and Senior Officials	Professional, Associate Professional and Technical Occupations	Administrative and Secretarial Occupations	Skilled Trades Occupations	Caring, Leisure and Service Occupations	Sales and Customer Service Occupations	Process, Plant and Machine Operatives	Elementary Occupations	TOTAL
Commerce and Trade	up to 372	n/a	up to 47	up to 445	up to 5	up to 1,076	n/a	up to 1,231	up to 3,176
Professional Services	up to 193	up to 919	up to 317	up to 62	n/a	up to 270	n/a	up to 97	up to 1,858
Transport and Logistics	up to 13	n/a	up to 47	n/a	up to 35	up to 55	up to 458	up to 330	up to 938
Manufacturing/ Biopharma	up to 47	up to 159	n/a	up to 123	n/a	up to 40	up to 225	up to 145	up to 739
Agri-Food	n/a	n/a	n/a	up to 83	n/a	n/a	n/a	up to 21	up to 104
Construction	n/a	up to 130	n/a	up to 407	n/a	n/a	up to 115	up to 137	up to 789
TOTAL DEMAND	up to 625	up to 1,208	up to 411	up to 1,120	up to 40	up to 1,441	up to 798	up to 1,961	up to 7,604

Source: RSM (2017)

Note: whilst the recommendations in this report aim to address the skills gaps identified above, it is important to note that some of the gaps are current and not all can be immediately addressed. Some actions require significant lead-in time to deliver on the resource required (including up-skilling, re-skilling, development of new courses, expansion/revision of existing courses, etc.).

5. Skills Demand and Supply

- Commerce and Trade Sector

5.1 Key Business Drivers within Commerce and Trade Sector

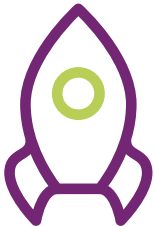
The commerce and trade sector is a diverse and wide-ranging sector which covers:

The overall economic activity and performance of the hospitality industry, accommodation and food services activities, Hotels, Restaurants & Bars, Canteens & Catering.



The Retail Industry consists of retail goods which are generally sold in many different establishments. Retailers can be classified by retail store strategy mix, which is an integrated combination of hours, location, assortment, service, advertising, and prices etc. Retail establishments typically classified into following sectors: Convenience stores, Speciality stores, Department store, E-commerce and Supermarkets.

The literature highlights some of the key drivers within the commerce and trade industry, as follows:



Growing Volume and Velocity of Retail Data – Retailers are facing and adopting a robust and cohesive strategy in data analytics and management, to ensure that the supply chain is efficient for store operations. This process in supply chain is facing growing difficulties and is key to for engaging customers and building loyalty. Big data is at the core of any viable retail operation, and with demand comes an increase in the volume, power, and complexity of data sources and applications.



Shift in Power from Retailer to Consumer – Consumers today are increasingly empowered by use of online tools and technologies, and now have a voice and input for change. Proactive retailers will need to engage and monitor the Web for how customers are talking about their brand, and reach out to customers either to address complaints or acknowledge compliments.

Cost, Price and Profit – The retailer's skill in developing a compelling product mix that is priced just right for the target market is key to creating repeat customers and traffic growth through referrals. And business growth prospects directly affect how much the business is worth.

The anticipated Brexit effects – Brexit will pose significant new challenges in the coming years. Weakening consumer confidence and the fall in the value of Sterling have already had an immediate impact on the sector's performance, as well as on the sentiment of Irish retailers.

5.2 Sector Size and Expected Growth

The Commerce and Trade sector employs 428,700 people nationally, representing 20.9% of national employment.¹ There are approximately 37,400 active wholesale and retail enterprises in Ireland located in almost every community, right across the country, for which 58% have less than 10 employees and 50% hired more than 250 people.² Within the Commerce and Trade sector the Retail sector provide a critical division for the Irish economy, as it employs over 280,000 people.³ The retail sector encourages economic growth and enterprise, by sustaining employment and supporting lively and vibrant communities across Ireland.

¹ QNHS Detailed Employment Series (Q1 2017)

² Shaping the future of Irish retail 2020 (Retail Ireland-IBEC 2017)

³ Ibid

For Fingal, the retail sector, and other commercial traders, are an important source of employment. There are 2,041⁴ businesses within the sector, representing 24.6%⁵ of Fingal businesses. Regionally, there are significant shopping centres in Blanchardstown and Swords, retail parks and retailers. There are 36,935⁶ people employed in Fingal for this sector, which represents 27.6% of employment in Fingal. The table below details the number of businesses and employees in the Commerce and Trade sector at the national level and for Fingal.

Commerce and Trade Sector: National and Fingal

Commerce and Trade Sector	National	Fingal County Council
Number of businesses	24,512	2,041
% of businesses	9.9%	24.6%
Number of employees	428,700	36,935
% of employees	20.9%	27.6%



Source: QNHS Detailed Employment Series (Q1 2017), Shaping the future of Irish retail 2020 (Retail Ireland-IBEC -2017), Fingal County Council Economic Development Services (Fingal County Council, 2016)

5.3 Summary of Critical Skill Gaps

The analysis of the demand and supply for each occupation category (section 4.2) highlighted several shortages for the Commerce and Trade sector. The table below highlights the most critical shortages across the occupation categories.

Critical Skills Gaps - Commerce & Trade Sector

Sector	Occupation							
	Managers, Directors and Senior Officials	Professional, Associate Professional and Technical Occupations	Administrative and Secretarial Occupations	Skilled Trades Occupations	Caring, Leisure and Service Occupations	Sales and Customer Service Occupations	Process, Plant and Machine Operatives	Elementary Occupations
Annual Requirement up to 2023	415	100	130	445	85	1,100	100	1,255
Gap between supply and demand up to 2023 per annum	up to 372	n/a	up to 47	up to 445	up to 5	up to 1,076	n/a	up to 1,231

Source: RSM 2017

⁴Fingal County Council Economic Development Services (Fingal County Council, 2016)

⁵Ibid

⁶Census 2016



The critical skills shortages for the Commerce and Trade sector are:

ELEMENTARY OCCUPATIONS e.g. shop and retail assistants and shelf stackers

The analysis that there is no clear evidence of the supply of these skills, as the training will often be through private sector providers. There is a requirement for **up to 1,231 per annum in this occupation category**. These roles often do not require training beforehand and staff are normally trained whilst in employment. The analysis did highlight the existence of some local course which could be relevant, including:

Local Provision: DDLETB Baldoyle Training Centre offers courses in Barista, Food Safety & Retail Skills however it is unclear how many places are offered per annum. In addition, DDLETB have a traineeship under development in Retail and Barista with up to 48 places per annum, although these graduates won't be specifically for Fingal or for the commerce and trade sector.

Broader Provision: Dundalk Institute of Technology provides one course relevant to the elementary occupation: Certificate in Hospitality operations. There is also limited supply of traineeships through CDET training centres which offer courses such as Retail Associate Traineeship and Hospitality.

Elementary occupations within the commerce and trade sector often do not require significant levels of experience or qualifications. Often this is provided whilst in employment. The challenge facing the sector is the high level of turnover within these occupations. The sector needs to provide clear training and career paths so that people employed in these occupations see a future in the sector.

SALES AND CUSTOMER SERVICE OCCUPATIONS e.g. waiting staff and bar staff

The analysis shows there is **a significant shortfall of up to 1,076 Sales and Customer Services Occupations**, and there is no clear evidence of the supply of these skills, as the training will often be through private sector companies. However, the supply indicated in the table **covers all sectors and is not exclusive to Commerce and Trade**.

The findings from the interviews with the sector highlighted that the main gaps were in **Customer Service and Sales Roles**.

On the supply side, the analysis highlighted:

Local Provision: DDLETB have a traineeship under development in Retail and Barista with up to 48 places per annum, although these graduates won't be specifically for Fingal or for the commerce and trade sector.

Broader Provision: Dublin Institute of Technology (DIT) offer a modern and innovative course: Bar & Beverage Management & Entrepreneurship (Level 8). However, this only has approximately 34 places. There are also courses available through the Retail and Hospitality Skillnet and an apprenticeship for in Associate Sales Professional. The broader supply is not exclusively available to Fingal County Council area.

There are a limited number of courses that provide the relevant training in relation to these sales and customer service roles. Much of the training that is provided is completed whilst in employment, so called on-the-job training. The challenges the sector faces in relation to these roles is to encourage greater numbers to remain in the sector for the longer term. This requires the sector to offer more structured training and career pathways and to even reward continued loyalty with appropriate levels of remuneration.

SKILLED TRADES OCCUPATIONS e.g. chefs & kitchen/catering assistants

The analysis shows that there is a **gap of up to 445 Skilled Tradespeople per annum.**

The findings from the interviews with the sector highlighted that the main gaps in this group was regarding **Chefs both in cafes, restaurants and hotels.**

On the supply side, the analysis highlighted

Local Provision: There is no evidence of local supply of skills for this occupation group in this sector.

Broader Provision: Two education institutions; **Dundalk Institute of Technology (DKT)** and the **Dublin Institute of Technology (DIT)** offer a number of courses relating to the required skills trade occupations. These courses cover the theory and practice of all aspects of classical, international and ethnic cookery, along with hospitality knowledge and skills, catering technology, catering sectors and systems, menu planning, nutrition, and communications.

Dundalk Institute of Technology (DKT) provide two courses in Culinary Arts (level 6 & 7) with 20 places per annum.

Dublin Institute of Technology (DIT) provide two courses in Culinary Arts (level 6 & 8) with 20 places per annum.

There is limited supply from traineeships and apprenticeships from Crumlin College of Further Education who offer a traineeship in Professional Cookery and an apprenticeship in Commis Chef.

The sector needs to achieve an increase in the number of skilled trades occupations, Fingal needs to increase the engagement with the sector to understand what support they need to be able to offer more courses.



5.4 Recommendations and Detailed Actions by Sector and Occupation

Recommendation	Responsibility	Action	Indicative Timescale ⁷
Commerce and Trade Sector			
To address the gap in Skilled Trades Occupations of up to 445 places per annum to meet local business needs			
CT1	Locally, DDLETB to explore the possibility of establishing new courses through training centres in Fingal or through traineeship/apprenticeship provision for Chefs and Sous Chefs.	DDLETB	See actions re: new course provision Medium Term
CT2	Looking more broadly, lobby for an increase in places on Restaurant and Hospitality Skillnet Training Courses available in Dublin (including Kitchen Management Training, Restaurant Induction Bundle) and for these to be directed towards addressing Fingal needs	SSIG Restaurant and Hospitality Skillnet	See actions re: increasing places on existing courses Medium Term
CT3	Looking more broadly, CDETB Crumlin College of Further Education to increase places on Traineeship in Professional Cookery and Apprenticeship in Commis Chef and for these to be directed towards addressing Fingal needs.	SSIG + CDETB	See actions re: increasing places on existing courses Medium Term
To address the gap in Sales and Customer Services Occupations of up to 1,076 places per annum to meet local business needs			
CT4	Locally, DDLETB to increase places on Retail and Barista Traineeship. See also Recommendation 56	DDLETB	See actions re: increasing places on existing courses Medium Term
CT5	Looking more broadly, HE providers – for example - Dublin Institute of Technology to increase places on Bar & Beverage Management & Entrepreneurship course and for these to be directed towards addressing Fingal needs	SSIG + HE providers - for example - DIT	See actions re: increasing places on existing courses Medium Term
CT6	Looking more broadly, CDETB Whitehall College to increase places on Apprenticeship in Associate Sales Professional and for these to be directed towards addressing Fingal needs.	SSIG + CDETB	See actions re: increasing places on existing courses Medium Term
CT7	Looking more broadly, lobby for an increase in places on Restaurant and Hospitality Skillnet Training Courses available in Dublin (including Kitchen Management Training, Customer Care Training, Restaurant Induction Bundle & Barista Workshop) and for these to be directed towards addressing Fingal needs	SSIG + Restaurant and Hospitality Skillnet	See actions re: increasing places on existing courses Medium Term
To address the gap in Sales and Customer Services Occupations of up to 1,076 places per annum to meet local business needs			
CT8	Locally, DDLETB to increase places on Barista, Food Safety and Retail Skills courses including Traineeships in Retail and Barista.	DDLETB	See actions re: increasing places on existing courses Medium Term
CT9	Looking more broadly, lobby for an increase in places on Restaurant and Hospitality Skillnet Training Courses available in Dublin (including Kitchen Management Training, Customer Care Training, Restaurant Induction Bundle & Barista Workshop) and for these to be directed towards addressing Fingal needs	SSIG + Restaurant and Hospitality Skillnet	See actions re: increasing places on existing courses Medium Term
CT10	Looking more broadly, HE providers - for example - Dublin Institute of Technology to increase places on the Certificate in Hospitality Operations (Level 6) course and for these to be directed towards addressing Fingal needs	SSIG + HE providers - for example - DIT	See actions re: increasing places on existing courses Medium Term
CT11	Looking more broadly, CDETB to increase places and for these to be directed towards addressing Fingal needs including: Ballyfermot Training Centre to increase places on Traineeship in Retail Associate Ballymun Job Centre to increase places on Traineeship in Retail Associate Finglas Training Centre to increase places on Traineeship in Learning for Life Hospitality Programme-Diageo Liberties Training Centre to increase places on Traineeship in Hospitality.	SSIG + CDETB	See actions re: increasing places on existing courses Medium Term
Sector Leads Improving Sector Attractiveness			
CT12	Fingal County Council to work with the Commerce & Trade sector to make the sector more attractive to potential employees to support the development of the learning infrastructure and career paths.	Fingal CC Industry - Commerce & Trade	Sector leads model outlined in chapter 3 to be implemented

⁷ Short term = up to 3 months, Medium Term = 3 months - 1 year, Long Term = more than 1 year

5.5 Conclusions

Hospitality & Food Service Sector

Additional Education & Training Output – There are currently shortages in relation to suitably qualified chefs, while shortages of commis chefs feed into shortages at higher and specialist levels. In addition, there are significant shortfalls emerging among front-of-house, waiting, catering, and bar staff, amongst others. Provision of additional education and training output including flexible CPD offerings is required.

Improving the image of the sector – support the increase in people coming to the sector by improving the attractiveness of employment opportunities within the sector.

Provide Training for Unemployed Workers – support for the re-training of unemployed former hospitality sector workers. Who have the experience and qualification however perhaps need more up-to-date training.

Retail Sector

Perceptions of Wholesale and Retail Careers – The fact that the sector employs large numbers in relatively low skilled occupations obscures the considerable number of jobs requiring high level skills and qualifications, which are every bit as challenging and transformative as high-level jobs in other sectors. The wider public does not see that the sector is information intensive and technology heavy. The public does not see the highly skilled marketing personnel, category managers, supply chain managers, information technologists, accountants, financial managers and other professionals who drive the sector’s performance forward.

Shortcomings in Learning Infrastructure – Businesses with well-developed and good quality learning strategies respond to the relatively high cost of, and high level of disruption caused by, classroom-based training by limiting its use. Many of these businesses seldom undertake off-site classroom-based training (apart from initial induction training) with people at retail assistant level, or at equivalent levels in distribution, but do use it with more senior employees and with high skilled retail and wholesale professionals.

Underdeveloped Career Paths – whilst some wholesale and retail businesses in Ireland offer and advertise well defined career paths it is more common that career paths within the sector are less well-structured and that training policies are less tightly linked to career progression. This is a greater issue in small businesses where there is little scope to offer opportunities for promotion within the businesses and where there is little visibility of other opportunities.

Inadequate Learning Activity – the amount and quality of learning activity in the sector is very uneven. There are some businesses that invest heavily in training for people at all levels and in all functions, providing a combination of classroom and on-the-job training. There is also a limited range of traineeships and apprentices available. However, more often retailers and wholesalers do not provide adequate training.



6. Skills Demand and Supply

- Professional Services Sector

6.1 Key Business Drivers within Professional Services Sector

The professional service sector⁸ comprises the International financial services (IFS) sector⁹, Professional activities¹⁰, and Information and Communications Technology (ICT)¹¹.

Some of the key drivers within the professional service sector, as follows:

- **The growth in outsourcing** – is a key underlying factor in the attractiveness of the general business services sector, especially the professional services subset. There are new opportunities in other fast-growing markets abroad. With an increasing number of opportunities in developing markets.
- **Technological Advancements** – technology applications are unique in both supporting and driving operational requirements – consistently ‘raising the bar’ in how customer and operations support are defined. Advancements in both operation support systems and customer-facing technologies promise flexibility and innovation. However, improvements in productivity and efficiency are very costly and it must be on the agenda of business to capitalise on these innovations.
- **Uncertainty about the future** - uncertainty surrounding the impact of Brexit, and increased concerns of cybercrime and increased automation facing the industry.
- **Regulatory pressure** – regulatory requirements continue to increase, and financial institutions and professional services need to spend a large part of their discretionary budget on being compliant, and on building systems and processes to keep up with the escalating requirements.



6.2 Sector Size and Expected Growth of the Professional Services Sector

International financial services (IFS) sector

The IFS sector is an important asset to Ireland’s economy. The International Financial Services Centre (IFSC) is in Dublin’s Dockland, employing over 40,000 people across the country. Within the financial sector, the largest enterprises were in insurance, reinsurance & pension funding, and financial intermediation. Fingal has a modest financial services base with the highest concentrations in Swords and Blanchardstown, primarily within business parks and industrial campuses.

The IFS2020 Strategy sets out a vision for Ireland to be recognised as the global location for specialist international financial services. The strategy for the International Financial Services to 2020 forecasts growth of 10,000 jobs in that sector. The Fingal Development Plan 2017-2023 (Fingal County Council, 2017) has promoted the growth of the financial and banking sector in Fingal by facilitating the conditions conducive to such development including a high quality built and natural environment, public transport infrastructure and community and cultural infrastructure.

⁸ To define Professional Services, we have combined the NACE REV 2 sectors from I-O. The breakdown of these sectors includes: I Accommodation and Food Service Activities, J Information and Communication, K Financial and Insurance Activities, L Real Estate Activities, M Professional, Scientific and Technical Activities, N Administrative and Support Service Activities, O Public Administration and Defense; Compulsory Social Security,

⁹ NACE REV 2 Sector K - Within the financial sector, the largest enterprises include insurance, reinsurance & pension funding, and financial intermediation

¹⁰ NACE REV 2 Sector I, L, M, N, O - This sector includes such professional services as: administrative and support, education, professional, scientific and technical activities and public administration from such large enterprises including, legal & accounting, management consultancy, and architectural & engineering activities

¹¹ NACE REV 2 Sector J - Within the ICT sector, large employers were in publishing, broadcasting and programming and consultancy

¹² Information sourced from: <http://ifsc.ie/>

Professional activities

The Regional Labour Markets Bulletin (EGFSN, 2016) highlights how the professional activities provide a crucial role in Ireland's economy, employing nearly 450,000 people which represents over 22% of national employment. Within Dublin professional activities which includes such professional services; (administrative and support, education and public administration) and employs over 151,000 people which represents one quarter of employment.

In 2014 the Regional Labour Markets Bulletin (EGFSN, 2016) reports that Ireland's enterprise mix includes both small and large companies, exporting and locally trading which totalled 238,249 active enterprises. In Dublin number of active enterprises within the professional services; (administrative and support, education and public administration) totalled 40,035 active enterprises, which represents 17% of active enterprises. Foreign Direct Investment (FDI) will continue to play a key role in the future economic development for Ireland and for professional activities.

Information and Communications Technology (ICT)

The ICT sector encompasses software, IT services, electronics and hardware, and communications services. The ICT sector employs approximately 70,000 people and is responsible for about one third of Ireland's total exports. Furthermore, the software industry in Ireland is worth about €12 billion in exports, with 600 indigenous Irish companies, the rest from multinationals.

The ICT sector in Fingal County is largely based in the Blanchardstown area. This ICT cluster comprises some of the world's leading companies including IBM, Synopsys, PayPal, and eBay, representing a combined workforce of 8,500 people. There are also several smaller ICT companies in the area, bringing the total workforce up to an estimated 10,000 people, making Blanchardstown one of the largest ICT clusters in the country.

Addressing Future Demand for High-Level ICT Skills (EGFSN, 2013) reports that the ICT sector has an extensive number of high skilled professionals - 68,280 ICT professionals in 2012, and is a significant contribution to Ireland's export performance – accounting for €70 billion in exports per annum. Nationally, there is estimated to be strong demand for high-level ICT skills with 44,500 job openings forecast to arise over the period to 2018 from both expansion and replacement demand.

Assessing the demand for Big Data and Analytics Skills, 2013-2020 (EGFSN, 2014) report estimates that there will be 21,000 potential job vacancies that could arise from the expansion in the period up to 2020. This will encompass 3,630 roles for deep analytical roles and 17,470 for big data savvy roles. There would also be a further 8,780 potential job openings for supporting technology staff – already included within the demand forecast numbers for ICT professionals.

The Guidance for Higher Education Providers on Current and Future Skills Needs of Enterprise: Springboard+ (EGFSN, 2015) reports that the on-going ICT wave of innovation is driving strong demand for new high-level ICT skills and competences, particularly to design, develop and deploy new applications and services. Some of these are core technology skills but others,



for example Big Data and social media, require skillsets with a combination of skills, such as technology, statistics and business skillsets for Big Data; or technology and marketing skillsets for Social Media. Consequently, high-level ICT skills requirements will become increasingly complex and will demand more of the education and training systems and from in-company training.

The Regional Planning Guidelines 2010-2022 (The Regional Planning Guidelines Office, Dublin Regional Authority, 2010) aim to improve the rural development of ICT. This has achieved a high-quality environment offering a range of building sizes, and supporting the targeted provision of necessary infrastructure. Furthermore, the Fingal Development Plan 2017 – 2023 (Fingal County Council, 2017) has ensured that key stakeholders engage and collaborate with relevant agencies, and sectoral representatives to develop the ICT sector in Fingal and to ensure that the economic potential of the sector is secured for the benefit of the local economy, and national economy.

There are however several risks that this growth may not materialise for the Professional Service sector. The key risks include:

Changing economic conditions – anticipated volatility in financial markets may create significant challenges and issues for businesses to address.

Analytics and big data – the rapid spend of innovations and new technologies within the industry may outpace the organisations ability to compete and / or manage the risk appropriately.

Customer expectations – Sustaining customer loyalty and retention may be increasingly difficult due to the evolving customer preferences and demographic shifts in the customer base.

6.3 Summary of Critical Skills Gap

The analysis of the demand and supply for each occupation category (section 4.2) highlighted several shortages for the Professional Services sector. The table below highlights the most critical shortages across the occupation categories.

Critical Skills Gaps - Professional Services Sector

Sector	Occupation							
	Managers, Directors and Senior Officials	Professional, Associate Professional and Technical Occupations	Administrative and Secretarial Occupations	Skilled Trades Occupations	Caring, Leisure and Service Occupations	Sales and Customer Service Occupations	Process, Plant and Machine Operatives	Elementary Occupations
Annual Requirement up to 2023	200	1,200	400	145	30	285	30	130
Gap between supply and demand up to 2023 per annum	up to 193	up to 919	up to 317	up to 62	n/a	up to 270	n/a	up to 97

The critical skills shortages for the Professional Services sector are:

PROFESSIONAL, ASSOCIATE PROFESSIONAL AND TECHNICAL OCCUPATIONS

e.g. IT specialists, medical practitioners and lawyers

The analysis indicates **a significant gap of up to 919 Professional, Associate Professional and Technical Occupations per annum**. The findings from the literature review, survey & interviews with the sector indicate the main shortages include IT specialists, Actuaries, Economists and Statisticians. On the supply side, the analysis highlighted:

Local Provision: TU Dublin Blanchardstown provides a number of courses supplying the IT sector however there is evidence to indicate that supply should increase to provide for local business skill needs. In addition, there are two relevant traineeships offered by DDLETB in QA Software Engineering and Accounting Technician which provide up to 60 places per annum.

Broader Provision: There is a strong supply from the HE institutions in the Greater Dublin Region however, there is significant competition for graduates from these courses both within businesses in Fingal but also other businesses across Ireland. There are several apprenticeships and traineeships available. Finglas Training Centre offer 4 traineeships relating to the ICT sector which include IT Support Specialist and software development.

The analysis indicates that there is a very large number of Professional, Associate Professional and Technical Occupations required in the professional services sector in Fingal over the next 6 years, this is largely due to high levels of expansion demand. However, it is important to note that professional services businesses from all over Ireland are competing for these graduates and therefore Fingal needs to be more attractive than other areas. This is linked to other well-being factors including access to housing, education, transport links and healthcare provision.

Vacancies at this occupation level often require experienced hirers. However, interviews with the sector have indicated that an increase in the number of work-based learning experiences including placements would support the sector in accepting graduates into these roles and continuing their training whilst in employment.

ADMINISTRATIVE AND SECRETARIAL OCCUPATIONS *e.g. office managers, office workers*

The analysis shows that there demand of 400 administrative and secretarial roles in the professional services sector. The analysis shows that there is the gap in supply is up to 317 per annum; this can be minimised if those graduating from college can be attracted to the sector and working in Fingal, however the supply indicated in the table covers all sectors and is not specifically for the professional services sector.

The findings from the interviews and literature review highlighted that office managers and administration staff were in short supply. One of the key challenges was attracting the appropriate recruits to the professional service sector ahead of other sectors demanding the same skills.



On the supply side, the analysis highlighted

Local Provision: There is a strong supply of business administration graduates in Fingal from the TU Dublin Blanchardstown, the Training Centres in Fingal and through traineeships provided by DDLETB, however this supply is in demand across 5 of the core sectors in Fingal and across up to 6 different occupational categories. It is therefore important to note that the supply identified covers all these business sectors and is not exclusively for the professional service sector;

Broader Provision: There is no evidence of broader supply of skills for this occupation group in this sector.



Interviews with the professional service sector have indicated that the sector don't see any shortage of supply in this sector, however the model shows that replacement demand will be main driver of shortages in the future. This area needs to be monitored annually.



SALES AND CUSTOMER SERVICE OCCUPATIONS

e.g. sales and retail assistants, call and contact centre occupations and customer service occupations

The analysis shows that there demand of 285 sales and customers roles in the professional services sector. The analysis shows that there is a shortfall of 270 Sales and Customer Services Occupations per annum. The findings from the interviews with the sector highlighted that the main gaps were in Customer Service and Sales Roles. On the supply side, the analysis highlighted:

Local Provision: There is not a strong supply of graduates qualified with services/sales in Fingal. All three DDLETB Training Centres offer a course in Customer Services, however there are only 20 places on each. This supply is in demand across 4 sectors/occupations and therefore the analysis has split the supply to reflect this. Therefore, the maximum local supply for the professional services sector for this occupation group is 15.

Broader Provision: There is broader provision in FET Sector and College Sector in the wider Dublin area, still within the DDLETB area. However, this supply caters for a range of sectors and geographic areas: it is not solely available for Fingal or the Professional Services Sector. Given there is a significant shortfall in relation to qualified sales and customer service staff to fill the roles, there is a need to increase capacity to meet the replacement needs over the next 5 years and/or to encourage more people to stay in their existing roles. The challenge for the sector is to make the sector more attractive as a job prospect for people qualifying in sales and customer service. Industry must do more to market and promote these roles: this may include offering placements or engaging with FET to provide information to students on the sales / service occupations in the professional service sector.

SKILLED TRADES OCCUPATIONS

e.g. IT technicians, telecommunications engineers & construction and building trades supervisors

The analysis shows there is a shortfall of 62 Skilled Trades Occupations per annum. The findings from the literature review and the interviews with the sector highlighted that the main gaps in this group were IT Technicians, Telecommunication Engineers. On the supply side, the analysis highlighted:

Local Provision: There are a range of courses in Engineering and ICT at TU Dublin Blanchardstown however there are only up to 75 places per annum and some of these also cater for other sectors/occupations. There are also between 15 - 20 apprenticeships in Fingal in ICT and traineeship provision.

Broader Provision: Dublin Institute of Technology offer courses in Electronics Communication and Information Systems. There is limited supply of traineeships through CLETB, Ballyfermot Training Centre offer 2 traineeship relating to the ICT sector, which includes a Diploma for ICT Systems & Principles for IT Professionals and a Diploma for ICT Systems & Principals for Network Engineers. However, this supply is not specifically for Fingal. The sector needs to achieve an increase in the number of skilled trades occupations, Fingal needs to increase the engagement with the sector to understand what support they need to be able to offer more courses.



6.4 Recommendations and Detailed Actions by Sector and Occupation

Recommendation	Responsibility	Action	Indicative Timescale ¹³	
Professional Services Sector				
To address the gap in Professional, Associate Professional and Technical Occupations of up to 1,021 places per annum to meet local business needs				
PS1	Locally, increase places on MSc in Computing, Bachelor of Science in Computing, Bachelor of Science in Digital Forensics and Cyber Security, BBS in Business, Bachelor of Business in Accounting & Finance, Bachelor of Business and Higher Certificate in Science in Computing in Networking Technologies at TU Dublin Blanchardstown ¹⁴ .	SSIG + TU Dublin Blanchardstown	See actions re: increasing places on existing courses	Medium Term
PS2	Locally, increase places on BSc in Information Technology (online), MSc in Computing ¹⁶ , BSc (Hons) in Computer Applications, BSc (Hons) in Enterprise Computing, BSc(Hons) in Data Science ¹⁷ at Dublin City University.	SSIG + DCU	See actions re: increasing places on existing courses	Medium Term
PS3	Locally, increase places on DDLETB Traineeships including QA Software Engineering and Account Technician to meet local business needs. See also Recommendation 56	DDLETB	See actions re: increasing places on existing courses	Medium Term
To address the gap in Administration and Secretarial Occupations of up to 327 places per annum to meet local business needs				
PS4	Locally, DDLETB to increase places on Office Administration Level 5 Office Skills Level 4 Business Administration Level 5 courses Professional Office Administrator Office Administration Course Information Technology	DDLETB	See actions re: increasing places on existing courses	Medium Term
To address the gap in Sales and Customer Services Occupations of up to 270 places per annum to meet local business needs				
PS5	Locally, DDLETB to increase places on Customer Service courses	DDLETB	See actions re: increasing places on existing courses	Medium Term
Overarching recommendation				
PS6	Professional Services companies to invest in providing training or supporting staff accessing training in relation to Project management procedures and techniques (PRINCE2 (Project Management in Controlled Environments 2) or Project Management Institute (PMI) Certification).	Industry - Professional Services	Professional Service sector representatives to meet to discuss barriers to providing further investment in training or supporting staff accessing training in relation to Project management procedures and techniques. Audit of current provision and uptake of this Identify resources/ funding to support access to training Disseminate information about appropriate provision and finance to support this	Long Term
Sector Leads Improving Sector Attractiveness				
PS7	Fingal County Council to work with the Commerce & Trade sector to make the sector more attractive to potential employees to support the development of the learning infrastructure and career paths.	Fingal CC Industry - Commerce & Trade	Sector leads model outlined in chapter 3 to be implemented	

¹³ Short term = up to 3 months, Medium Term = 3 months – 1 year, Long term= more than 1 year

¹⁴ Places are offered through CAO and marketed through part-time. TUD - B works where possible to increase depending on demand and need from industry. Designation as a TU will lead to other opportunities for people in the region and the development of the digital campus allows for more online delivery also which will support the demand.

¹⁵ As this is delivered through Open Education delivery, it could be expanded considerably

¹⁶ Current provision is 55 full-time and 35 part-time with scope to increase by not more than 30

¹⁷ The School is currently at capacity (250) across BSc (Hons) in Computer Applications, BSc (Hons) in Enterprise Computing, BSc(Hons) in Data Science

6.5 Conclusions

Emerging findings include:

Increase provision of courses in ICT and Data Analytics – the international financial services sector and the ICT sector have significant demand for graduates and experienced hires in relation big data and analytics. Current course provision is not adequate to meet demand and therefore existing courses need to increase enrolment or new courses need to be developed. There is a range of traineeships which are focused in the ICT sector which are provided by CCLETB Finglas Training Centre, however this is not within the local provision of Fingal.

Increased need for technology skills - The outlook for growth in Ireland's FinTech sector is very encouraging but the sector is competing with other sectors in the economy for highly-skilled individuals particularly in the ICT area. In a survey conducted by Finuas to establish the IFS skills needs, the FinTech companies identified technology as their number one skill need.

Project Management Skills – There is a shortage of trained managers in the professional services sectors. Specific skills needed include Project management procedures and techniques (PRINCE2 (Project Management in Controlled Environments 2) or Project Management Institute (PMI) Certification).



7. Skills Demand and Supply

- Transport and Logistics Sector

7.1 Key Business Drivers within Transport and Logistics Sector

The literature highlighted some of the key drivers within the transport and logistics sector, as follows:



Changing Customer Expectations – the rise of companies such as Amazon has pressurised the transportation and logistics sector to deliver goods exceptionally fast, and at low prices. In addition, customers require advanced order status, tracking and delivery notifications forcing the industry to invest in innovative technologies and partnerships.

A Rise in Ecommerce - Increasing consumer demands are fuelled by the growth of ecommerce. Moreover, the mobile phone is becoming the primary shopping device of consumers meaning that they can literally shop anytime, anywhere. To compete, retailers must employ an omnichannel logistics strategy to deliver a seamless shopping experience. This inevitably introduces new supply chain, fulfilment and shipping challenges.

Supply Chain Innovation – collecting data at various points along the supply chain offers potential to improve customer services and maximise efficiency. Big data and predictive analytics are being used to plan event driven marketing promotions.

Automated Delivery of Goods – The movement toward automation is improving sector productivity. These automated solutions have the potential to increase safety, reduce risk and significantly increase efficiency.

Logistics as a Service - Overarching the broader industry is the movement towards cloud logistics that enables, “logistics as a service” business models. Innovations in the cloud have improved control over supply chain processes with access to real-time information, allowing companies to be more agile in response to volatility or disruptive events. Meanwhile, this same technology facilitates flexible integrations with other key business processes to optimize all operations.

The Transport and Logistics Sector must cope with a distinctively complex market situation. Advancements in technology and changes in the way goods are bought and sold are creating complexity, but also opportunities for the industry. Companies operating in this sector need to be agile, forward thinking and open to collaboration.

7.2 Sector Size and Expected Growth

The Transport and Logistics Sector is a strategic and operational sector which is important within Ireland and across all sectors of the economy. The sector employs 95,400 people representing 4.7% of national employment. Road freight is the most common means of transporting freight in Ireland and two thirds are employed as road transport operatives - predominantly large goods vehicles.

The National Skills Strategy 2025 (Department of Education and Skills, 2016) has estimated that the Freight Transport, Distribution & Logistics sector will create 10,000 extra jobs from 2016 to 2020, and from this it is projected that Fingal County will create an additional 1,400



jobs for the Transport and Logistics Sector over this same period. The table below details the Transport and Logistics Sector forecasts for the number of jobs, at the national level and for Fingal.

Transport and Logistics Sector Forecast: National and Fingal

Transport and Logistics Sector	National	Fingal County Council
Number of Jobs	From 2016 to 2020 an additional 10,000 jobs	Based on National Skills strategy projections, estimated growth of 1,400 jobs from 2016 to 2020

Source: National Skills Strategy 2025 (Department of Education and Skills, 2016)



There are however several risks that this growth may not materialise. Key risks include:

Strategy Risks:

- *Uncertainty in customer demand due to changes in shipping and freight markets from general economic fluctuations.*
- *Intensive competitive environment driven by several companies competing in one or more segments of the industry.*
- *Slowdown in China’s economy backed by decreasing demand for commodities and a drop in Chinese exports and imports.*



Technology Risks:

- *Increasing competition from start-ups and large tech companies implementing emerging technologies in Big Data analytics*
- *Profitability and Liquidity Risks:*
- *Volatility in commodity and fuel prices leading to instability in revenue streams and operational costs;*
- *The risk of adverse movements in interest rates and exchange rates.*

People Risks:

- *Inability to attract and retain qualified personnel while appropriately managing costs related to employee benefits.*

7.3 Summary of Critical Skills Gaps

The Transport and Logistics Sector is a strategic and operational sector which is important within Ireland and across all sectors of the economy. The sector employs 95,400 people representing 4.7% of national employment. Road freight is the most common means of transporting freight in Ireland and two thirds are employed as road transport operatives - predominantly large goods vehicles.

Critical Skills Gaps - Transport & Logistics Sector

Sector	Occupation							
	Managers, Directors and Senior Officials	Professional, Associate Professional and Technical Occupations	Administrative and Secretarial Occupations	Skilled Trades Occupations	Caring, Leisure and Service Occupations	Sales and Customer Service Occupations	Process, Plant and Machine Operatives	Elementary Occupations
Annual Requirement up to 2023	70	45	130	45	55	70	500	400
Gap between supply and demand up to 2023 per annum	up to 13	n/a	up to 47	n/a	up to 35	up to 55	up to 458	up to 330

The critical skills shortages for the Transport & Logistics sector are:

PROCESS PLANT AND MACHINE OPERATIVES

e.g. HGV drivers, Mobile machine drivers and operatives n.e.c and Fork-lift truck drivers



The table below compares the annual demand (including expansion and replacement) for Process, Plant and Machine Operatives in the Transport & Logistics Sector against the projected supply. This considers a range of providers such as HE, FET (including apprenticeships, traineeships) and other providers as appropriate; in all cases, provision is split as local and broader. This is a crucial occupation category for the growth of the transport and logistics sector both in Fingal and Nationally. The analysis indicates that there is no clear evidence on the supply of these skills, as the training will often be through private sector providers or in company, therefore there is a lack of comprehensive data on the supply side. This highlights that a potential gap of **up to 500 per annum exists**.

The findings from the interviews with the sector highlighted that the main gaps in this group was regarding HGV drivers; Mobile machine drivers and operatives; Managers and directors in storage and warehousing; Managers and directors in transport and distribution; Fork-lift truck drivers. On the supply side, the analysis highlighted:

Local Provision: There are local bespoke training courses for these professions, however they are often completed whilst in employment in DDLETB Baldoyle, Loughlinstown and Tallaght Training Centre, however, it is unclear how many places are available per annum.

Broader Provision: The Irish School of Motoring (ISM) provide driving lessons for Articulated Truck Driver licence (HGV), forklifts and other vehicles in Dublin, however it is not clear how many places are available per annum. CDET Ballyfermot Training Centre provide up to 30 places per annum across the 2 apprenticeships: motor and body vehicle repair.

Industry must address gaps in these occupations by identify and offering upskilling to existing staff. Industry can meet with training providers to understand the courses on offer, places and costs.

ELEMENTARY OCCUPATIONS e.g. *labourer, warehouse assistant and order picker*

The analysis indicates that there is a **shortage of 330 people per annum**.

The findings from the interviews with the sector highlighted that the main gaps in this group was regarding **haulage contractor, warehouse assistant, warehouse operator**. On the supply side, the analysis highlighted:

Local Provision: There are local courses available in relation to warehouse operations however these courses are only run annually and supply 70 graduates.

Broader Provision: There is no evidence of broader supply of skills for this occupation group in this sector.

Supply of elementary operatives in the transport and logistics sector is critical to the future growth of the sector. The sector is impacted by a decrease in the availability of migrant labour and is increasingly looking at a domestic labour to fill vacancies. The sector suffers from a low profile generally, with little knowledge of how it operates and opportunities for careers associated with it. This makes it more difficult to both attract and retain talent. This can be attributed in part to a lack of marketing of careers in the industry and the service it offers, aside from large companies which have their own strong brand recognition. Knowledge of careers in the sector is often restricted to awareness of traditional roles such as HGV drivers.



SALES AND CUSTOMER SERVICE OCCUPATIONS

e.g. *customer service roles, sales roles and merchandisers*

The analysis shows that there is a demand of 70 sales and customer service roles in the transport & logistics sector. The analysis shows there is a shortfall of 55 Sales and Customer Services Occupations per annum. The findings from the interviews with the sector highlighted that the main gaps were in Customer Service and Sales Roles. On the supply side, the analysis highlighted:

Local Provision: There is not a strong supply of graduates qualified with services/sales in Fingal. All three Training Centres do offer a course in Customer Services, however there is only 20 places on each. This supply is in demand across 4 sectors/occupations and therefore the analysis has split the supply to reflect this. Therefore, the maximum local supply for the transport & logistics services sector for this occupation group is 15.

Broader Provision: There is broader provision in FET sector and College Sector in the wider Dublin area, still within the DDLETB area. However, this supply is not specifically for Fingal or the Transport and Logistics Sector.

Given there is a significant shortfall in relation to qualified sales and customer service staff to fill the roles, there is a need to increase capacity to meet the replacement needs over the next 5 years and/or encourage more people to stay in their existing roles.

The challenge for the sector is to make the sector more attractive as a job prospect for people qualifying in sales and customer service. Industry must do more to market and promote these roles: this may include offering placements or engaging with FET to provide information to students on the sales / service occupations in the transport and logistic sector.

7.4 Recommendations and Detailed Actions by Sector and Occupation

Recommendation	Responsibility	Action	Indicative Timescale ¹⁸
Transport & Logistics Sector			
To address the gap in Process, Plant and Machine Operatives of up to 458 places per annum to meet local business needs			
TL1	Locally, increase numbers on HGV driving, driver and operator training from DDLETB Training Centres	DDLETB	See actions re: increasing places on existing courses Medium Term
TL2	Locally, increase numbers on Rigid Truck Driving and Qualified Driver Traineeships from DDLETB	DDLETB	See actions re: increasing places on existing courses Medium Term
TL3	Looking more broadly, CDETB to increase places and for these to be directed towards addressing Fingal needs including <ul style="list-style-type: none"> • Apprenticeship in Motor • Apprenticeship in Vehicle Body Repair 	SSIG + CDETB	See actions re: increasing places on existing courses Medium Term
TL4	DDLETB to consider offering places on Logistics Associate Apprenticeship (Level 6 Higher Certificate in Logistics (this was recently validated by the Dublin Institute of Technology (DIT) paving the way for the first intake of apprentices in September 2018. It has been developed by a consortium including FTAI, IIFA, CILT, the Shipbrokers Association and a significant list of employers.	DDLETB	See actions re: new course provision Medium Term
To address the gap in Elementary Occupations of up to 330 places per annum to meet local business needs			
TL5	Locally, increase numbers on warehouse operations courses from DDLETB Training Centres.	DDLETB	See actions re: increasing places on existing courses Medium Term
To address the gap in Sales and Customer Service Occupations of up to 55 places per annum to meet local business needs			
TL6	Locally, DDLETB to increase places on Customer Service courses at DDLETB Training Centres	DDLETB	See actions re: increasing places on existing courses Medium Term
Sector Leads Improving Sector Attractiveness			
TL7	Fingal County Council to work with the Commerce & Trade sector to make the sector more attractive to potential employees to support the development of the learning infrastructure and career paths.	Fingal CC Industry - Commerce & Trade	Sector leads model outlined in chapter 3 to be implemented

¹⁸ Short term = up to 3 months, Medium Term = 3 months – 1 year, Long term= more than 1 year

7.5 Conclusions

Key points emerging:

Develop clear career pathways – there is a need to develop clear career pathways across all roles types which acted as a barrier to entry for many qualified to enter the sector.

Develop the image and profile of the sector - The image and profile of the sector needs to be improved to attract talent to the sector and to increase the knowledge and awareness of the sector amongst students. This includes the range of roles available in the freight, transport, distribution and logistics sector and the importance of the sector to Ireland's economy.

Increased number of Transport and Logistics third level courses required - Programme content should include regulatory requirements, global supply chain management, use of technology and greener logistics. Third level logistics course provision should be boosted in terms of numbers and course content. The integration of practical work experience with the



theoretical elements of courses would ensure that graduates have spent time in a distribution warehouse or a transport depot learning how they operate. This will result in better prepared graduates and reduced training costs for Transport and Logistic enterprises. Delivering this element will require a close partnership between Transport and Logistic companies and education and training providers.

Improve management and communication - need to build up the management capability in relation to complex supply chain systems, transport compliance, change management, risk management, lean processing, logistics security, sustainability, people management and negotiation skills.

Provision of Internal Training - Within firms there is a need for improved provision of training and the support of lifelong learning. As staff progress through their careers there is a requirement for additional skills for both operations and management roles. There is a need for the development of career paths for lower skilled workers in the sector as well.



8. Skills Demand and Supply

- Manufacturing / Biopharma

8.1 Key Business Drivers

Manufacturing Sector

There are four high impact drivers¹⁹ that will impact on the manufacturing sector in Ireland. These include:

Globalisation and Intensified Competition – competition for Foreign Direct Investment (FDI) has intensified. Ireland has a well renowned track record in attracting FDI, however Ireland will need to work increasingly hard demonstrating the low-cost base and the high level of knowledge and skills to continue to maintain the levels of inward FDI.



Shifting Consumption Trends – Demographics across the world shape demand for manufactured goods and services. Ageing populations in the western economies will drive demand for age-related drugs and medical devices to address mental and physical wear-and-tear (e.g. joint replacements, increasingly made from novel materials). This presents a major opportunity for those manufacturers and their supply chains operating in the pharmaceutical, bio-med, medical devices, functional foods and wider life science sectors.

Advances in Science and Technologies – These factors are driving demand for increased levels of skills, both for upskilling within the existing workforce and for ensuring skills supplied by mainstream education and training are sufficient and relevant to industry requirements.



Environmental Concerns - Manufacturing is potentially one of the most significant sources of negative environmental impact given the carbon footprint arising from material and energy use, and the solid waste, air and water emissions that occur through production. Manufacturers will increasingly need to take a whole-life view of their products and embrace newer concepts such as 're-lifeing' or de-manufacturing.

Biopharma Sector

There are a range of global drivers impacting on the biopharma sector including:

Competitiveness and Productivity – Competitiveness and productivity are key issues for the Biopharma industry. Operational excellence is essential. This encompasses keeping up-to-date with trends in manufacturing technology including sole use equipment, process intensification, a move from batch to continuous manufacturing, and the principles of Lean Six Sigma²⁰.

Large Molecule Medicine - An increasing proportion of new medicines are “large molecule” biological based drugs rather than “small molecule” chemical based drugs. This has implications for the retraining/upskilling of staff within those companies that are diversifying into Biologics manufacturing and for the design/delivery of education and training programmes.

Stringent Quality Compliance - There are stringent quality compliance and regulatory demands, primarily from the US Food and Drug Administration (FDA), European Medicines Agency (EMA) and the Irish Health Products Regulatory Authority (HPRA). This has implications for quality assurance/control/validation skillsets.

New Technologies - The use of new technologies such as process analytical technology (PAT), continuous processing technologies, single use equipment, and advanced analytics is helping

¹⁹ The Future Skills Needs of the Manufacturing Sector to 2020 (EGFSN, 2013)

²⁰ Lean Six Sigma is a methodology that relies on a collaborative team effort to improve performance by systematically removing waste and reducing variation. It combines lean manufacturing/lean enterprise and Six Sigma to eliminate the eight kinds of waste

to improve capabilities in both “small molecule” and “large molecule” in relation to consistent product quality, process optimisation and reduced inventory and storage needs.

Advanced Data Capture - The growth of more advanced data capture from patients (diagnostics, medical imaging and patient monitoring) and more complex therapeutic approaches is driving the need for information-based medicine and innovative monitoring and delivery mechanisms. This is resulting in a growing demand for bioinformatics and advanced data analytics healthcare skillsets at the interface of drug manufacturing and medical devices. More data is being captured from the production plant process, prompting improved optimisation.

8.2 Sector Size and Expected Growth

8.2.1 Manufacturing Sector

There are approximately 205,700 people employed directly in manufacturing – and there is a similar number of people employed indirectly through manufacturing – with a total over 400,000 people nationally. Manufacturing provides employment across a broad range of occupations, through from operatives, technicians and trades to engineering and technology professionals.

Manufacturing is regionally dispersed, providing employment opportunities throughout Ireland. Almost 83% of employment is provided in locations outside of Dublin, ranging from 7 per cent of total employment in the Midlands to the highest at 18 per cent of total employment in the South West. Fingal has 487 business within the sector, representing 5.9% of the total number of businesses in Fingal. Furthermore, there are 9,270 people employed in Fingal, which represents 7% of all those in employment in Fingal²¹. The table below sets out the number of businesses and employees at the national level and for Fingal for the Manufacturing sector.

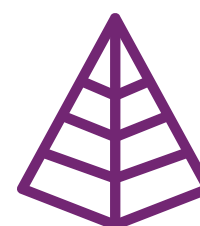
Manufacturing Sector: National and Fingal

Manufacturing Sector	National	Fingal County Council
Number of businesses	15,242	487
% of all businesses	6.1%	5.9%
Number of employees	205,700	9,270
% of employees	19.9%	7%

Source: CSO 2015 Business Demography NACE Rev 2

The Strategy; Making it in Ireland: Manufacturing 2020 (Forfás, 2014) sets out a vision for manufacturing in Ireland by 2020 estimates that 43,000 additional people could be directly employed in manufacturing by 2020. Using this RSM have estimated that 1,935 jobs could be created in Fingal over the same period. The table below sets out the number of jobs forecast at the national level and Fingal for the Manufacturing sector.

²¹Census 2016



Manufacturing Sector Forecasts: National and Fingal

Manufacturing Sector	National	Fingal County Council (estimate) ²²
Number of Jobs created from 2013 to 2020	43,000	1,935

Source: Making it in Ireland: Manufacturing 2020 (national figure)



8.2.2 Biopharma Sector

The biopharma sector is heavily concentrated within the Dublin Region (particularly the South-West, Dublin, Mid-East, and West regions), which includes county Fingal. It is estimated that 28,200 people were employed in the biopharma industry in 2015 in Ireland. Of these, 21,500 were engaged in Pharma manufacturing and related services, while 6,700 were employed in Biologics²³. The sector also creates a significant secondary employment in construction and other services. There is a total of 476²⁴ Biopharma / Pharmaceuticals businesses in Ireland, which consist of several large companies: approximately 35 large companies comprise 85% of employment²⁵. The table below sets out the number of businesses and employees at national level for the Biopharma sector.

Biopharma Sector: National and Fingal

Biopharma Sector	National
Number of businesses	476
% of all businesses	<1%
Number of employees	28,200
% of employees	2.7%

Source: The Future Skills Needs of the Manufacturing Sector to 2020 (EGFSN, 2013), Fingal Demographic and Socio-Economic Profile 2015, CSO 2015 Business Demography NACE Rev 2

The Biopharma industry is one of the fastest growing sectors in Ireland, and the sector is anticipated to create an additional 8,400 jobs by 2020. The table below sets out the number of jobs forecast at national level for the Biopharma sector.

Biopharma Sector Forecasts: National and Fingal

Biopharma Sector	National
Number of Jobs created from 2016 to 2020	8,400

Source: The Future Skills Needs of the Manufacturing Sector to 2020 (EDFSN, 2013)

²² This estimate has been produced by calculating the proportion of all employees in the manufacturing industry in Ireland (205,700, Census 2016) which are based in Fingal (9,270, Census 2016) - that is 4.5% - and applying that to the national growth figure. So, given the projected growth of 43,000 employees in the manufacturing nationally, we assume that 4.5% of this will be based in Fingal i.e. 1,935 (43,000*0.045=1,935).

²³ The Future Skills Needs of the Manufacturing Sector to 2020 (EGFSN, 2013)

²⁴ CSO 2015 Business Demography NACE Rev 2

²⁵ Ibid

²⁶ The Future Skills Needs of the Manufacturing Sector to 2020 (EGFSN, 2013)

8.3 Summary of Critical Skills Gaps

The analysis of the demand and supply for each occupation category (section 4.2) highlighted several shortages for the Manufacturing/Biopharma sector. The table below highlights the most critical shortages across the occupation categories.

Critical Skills Gaps - Manufacturing / Biopharma Sector

Sector	Occupation							
	Managers, Directors and Senior Officials	Professional, Associate Professional and Technical Occupations	Administrative and Secretarial Occupations	Skilled Trades Occupations	Caring, Leisure and Service Occupations	Sales and Customer Service Occupations	Process, Plant and Machine Operatives	Elementary Occupations
Annual Requirement up to 2023	70	215	70	215	n/a	55	300	145
Gap between supply and demand up to 2023 per annum	up to 47	up to 159	n/a	up to 123	n/a	up to 40	up to 225	up to 145

The critical skills shortages for the Transport & Logistics sector are:

PROCESS PLANT AND MACHINE OPERATIVES

e.g. assemblers & routine inspectors and testers

The analysis indicates that there is a **shortage of up to 225 people per annum**. It is important to note that the supply indicated in the table **covers all sectors and is not specifically manufacturing and biopharma**. The findings from the literature and interviews with the sector highlighted that the main gaps in provision related to assemblers, routine inspectors and testers and software testers.

On the supply side, the analysis highlighted limited supply in Fingal and the neighbouring counties.

Local Provision: The TU Dublin Blanchardstown provide three courses relating to engineering; DDLETB Baldoyle Training Centre provides a year-long course in software testing.

Broader Provision: Dublin Institute of Technology provides a CPD Inspection, Testing, Verification & Certification of Electrical Installations in Ireland (level 7). The course is one year.

The ability of the manufacturing industry to attract employees is affected adversely by a lack of knowledge of the career opportunities it offers and by negative perceptions of what manufacturing work entails, among potential future employees and many of those who influence them. A programme of information and promotion targeted at all skill levels is required to ensure that the sector has a strong supply of skills, and that second level students and others are well informed about the career opportunities available to them.



ELEMENTARY OCCUPATIONS *e.g. factory workers*

The analysis shows that there is no clear evidence of the supply of these skills, as the training will often be through in-house training or private sector providers. There is a requirement for up to 145 per annum in this occupation category.

On the supply side, the analysis highlighted:

Local Provision: There is no evidence of local supply of skills for this occupation group in this sector

Broader Provision: There is no evidence of broader supply of skills for this occupation group in this sector



Elementary occupations within the manufacturing and biopharma sector often do not require significant levels of experience or qualifications. Often this is provided whilst in employment. The challenge facing the sector is the high level of turnover within these occupations. The sector needs to provide clear training and career paths so that people employed in these occupations see a future in the sector.



PROFESSIONAL, ASSOCIATE PROFESSIONAL AND TECHNICAL OCCUPATIONS

e.g. engineering professionals, information technology professionals & business research and administrative professionals

The analysis shows there is a gap of up to 159 Professional, Associate Professional and Technical Occupations per annum. It is important to note that the supply of graduates from the courses identified are not solely for the manufacturing/biopharma sector in Fingal and therefore attracting graduates from neighbouring areas to work in Fingal is vitally important.

The findings from the interviews with the sector highlighted that the main gap in this group was regarding engineers, software developers and those with technical skills. One of the key challenges was attracting people qualified in these areas to Fingal. On the supply side, the analysis highlighted:

Local Provision: There has been much interaction between biopharma and manufacturing industries and the TU Dublin Blanchardstown and other Institutes of Technology to develop specific programmes to support their needs.²⁷ Dublin City University (DCU) is part of the (Bio) pharmaceutical & Pharmacological Sciences – a cross-institutional research and education programme which offer a full-time PhD lasting 3 years in (Bio)pharmaceutical & Pharmacological Sciences.

Broader Provision: Trinity College Dublin is also part of the (Bio) pharmaceutical & Pharmacological Sciences and offer a full-time PhD lasting 3 years in (Bio)pharmaceutical & Pharmacological Sciences. The School of Biomolecular and Biomedical Science at University College Dublin (UCD) offer a range of courses in manufacturing / biopharma. The UCD Structured PhD enables students to achieve the best possible experience of graduate research and training, and achieve and contribution to the knowledge of peer-reviewed publications. The UCD Structured PhD includes typically takes 4 years full-time and 6 years part time to complete.

This Masters programmes at UCD provides substantial coverage of scientific, technical,

²⁷ Information provided by Assumpta Harvey, Head of School of Business, TU Dublin Blanchardstown

management and regulatory issues associated with this industry and offers an internationally recognised high quality flexible curriculum which follows the latest developments in science and technology. This programme is suitable for Science and Engineering graduates wishing to obtain a qualification which is highly relevant to the biopharmaceutical industry.

There is a limited supply of traineeships, CDETB Colaiste Dhulaigh college of further education provide a traineeship in the Manufacturing, Supply Chain & Customer Service Logistics.

Fingal needs to be marketed as a destination for graduates / experienced hires in this area. Fingal also need to work with industry to market the area as a manufacturing / biopharma career destination, and provide a clear career paths so that employees see a future for themselves in the industry in Fingal.

SKILLED TRADES OCCUPATIONS

e.g. bioprocess technicians, quality control staff & polymer technicians

The analysis indicates that there is a shortage of up to 123 skilled trades occupations per annum. It is important to note that the supply indicated in the table covers all sectors and is not specifically manufacturing and biopharma.

The findings from the interviews with the sector highlighted that the main gaps in this group was regarding Bioprocess, Polymer and Plastics Technicians, Toolmakers, Quality control staff.

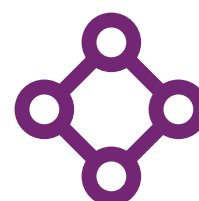
On the supply side, the analysis highlighted:

Local Provision: The TU Dublin Blanchardstown and Dublin City University provide a range of courses relating to the manufacturing and Pharmaceutical industry.

Broader Provision: Dublin City University (DCU) School of Biotechnology provide a dynamic programme to develop and provide a foundation for bioprocess design and operations, and there are approximately 30 places available per annum. The Institute of Technology Tallaght also offer two courses relating to the manufacturing and Pharmaceutical industry and provide up to 48 places per annum. In addition, there are two other providers which offer specialised training and courses in the manufacturing biopharma sector:

Innopharma College of Applied Sciences is an award winning global institute dedicated to applied science courses located in Dublin. The institution has developed strategic collaborations with several higher-level education institutions including with the Institute of Technology Tallaght, and Griffith College.

The National Institute for Bioprocessing Research and Training (NIBRT) provides a range of undergraduate and postgraduate programmes which are specifically tailored to meet the needs of students who wish to develop their careers in the manufacturing biopharma sector.



8.4 Recommendations and Detailed Actions by Sector and Occupation

Recommendation	Responsibility	Action	Indicative Timescale ²⁸	
Manufacturing & Biopharma Sector				
To address the gap in Process, Plant and Machine Operatives of up to 237 places per annum to meet local business needs				
MB1	Locally, increase places on BSc in Process Instrumentation & Automation, Bachelor of Engineering in Mechatronic Engineering, and Certificate in Industrial Automation at TU Dublin Blanchardstown ²⁹ .	SSIG + TUD - B	See actions re: increasing places on existing courses	Medium Term
MB2	Locally, increase places on Software Testing course at DDLETB Training Centres.	DDLETB	See actions re: increasing places on existing courses	Medium Term
MB3	Looking more broadly, HE providers – for example - DIT to increase places and for these to be directed towards addressing Fingal needs including CPD Inspection, Testing, Verification & Certification of Electrical Installations in Ireland.	SSIG + HE provider for example: DIT	See actions re: increasing places on existing courses	Medium Term
To address the gap in Professional, Associate Professional and Technical Occupations of up to 173 places per annum to meet local business needs				
MB4	Locally, increase places on BSc in Process Instrumentation & Automation, Master of Engineering in Internet of Things Technologies, Bachelor of Engineering in Mechatronic Engineering; Certificate in Lean Six Sigma at TU Dublin Blanchardstown ³⁰ .	SSIG + TUD - B	See actions re: increasing places on existing courses	Medium Term
MB5	Locally, increase places on Biopharmaceutical & Pharmacological Sciences; BEng (Hons) in Mechanical and Manufacturing Engineering; BEng (Hons) in Mechatronic Engineering, BEng (Hons) in Biomedical Engineering, MSc in Bioprocess Engineering; MSc in Diagnostics and Precision Medicine; MSc in Biomedical Diagnostics, MEng with specialism in one of four areas (Internet of Things (IOT), Nanotechnology, Image Processing and Analysis, Advanced Data Networks) at Dublin City University ³¹ .	SSIG + DCU	See actions re: increasing places on existing courses	Medium Term
MB6	Locally, DDLETB to explore offering Biopharma sector Laboratory Apprenticeship (validated for delivery in Institute of Tallaght in June 2018: two Occupational Profiles for a Level 6 Higher Certificate in Science as a Laboratory Technician and a Level 7 Ordinary Bachelor of Science Degree as a Laboratory Analyst)	DDLETB	See actions re: increasing places on existing courses	Medium Term
To address the gap in Elementary Occupations of up to 145 places per annum to meet local business needs				
MB7	Locally, DDLETB to explore the possibility of establishing new courses through training centres in Fingal or through traineeship/apprenticeship provision for Factory Workers, Welders and Material Handlers. See also Recommendation 56	DDLETB	See actions re: new course provision	Medium Term
Sector Leads Improving Sector Attractiveness				
MB8	Fingal County Council to work with the Commerce & Trade sector to make the sector more attractive to potential employees to support the development of the learning infrastructure and career paths.	Fingal CC Industry - Commerce & Trade	Sector leads model outlined in chapter 3 to be implemented	

²⁸ Short term = up to 3 months, Medium Term = 3 months – 1 year, Long term= more than 1 year

²⁹ Programmes have been developed in an apprentice model to assist this demand and is led by industry need (Learn & Work model)

³⁰ As these are new programmes there are spaces available depending on the demand

³¹ At present, there may be scope to increase places on undergrad degrees up to 30 places in total (BEng (Hons) in Mechanical and Manufacturing Engineering, BEng (Hons) in Biomedical Engineering) and on postgrad programmes up to 50 places in total (MSc in Bioprocess Engineering; MSc in Diagnostics and Precision Medicine; MSc in Biomedical Diagnostics)

8.5 Conclusions

Manufacturing

The future development of the manufacturing sector in Ireland relies on providing the skills for the future and improving the perceptions of career opportunities in the sector. The key findings in relation to the future of the sector include:

Improving the negative perceptions of the industry – There is still a wide spread perception that the manufacturing industry in Ireland is still in decline and that means that there are poor career opportunities. The sector needs to highlight that in fact the sector is growing and key growth sector in the Irish economy.

Career Progression and Qualifications in Irish Manufacturing – people entering employment in the Irish manufacturing sector should be able to see what skills they would acquire, and what the opportunities to acquire additional skills and to progress to higher level occupations would be. Ideally, there should be well understood paths for progression, supported by the training and education systems, and recognised through qualifications positioned in the National Framework of Qualifications.

Promote Manufacturing Careers – The ability of manufacturing industry to attract employees is affected adversely by lack of knowledge of the career opportunities it offers and by negative perceptions of what manufacturing work entails, among potential future employees and many of those who influence them. A programme of information and promotion targeted at all skill levels is required to ensure that the sector has a strong supply of skills, and that second level students and others are well informed about the career opportunities available to them.

Tackling Supply Side Issues – The shortage of fabricators, welders and other skilled trades can only be addressed by an increase in the number of apprentices recruited by industry. The current shortages for polymer technicians are being addressed in part through a distance learning course for those currently in employment.

Increase graduate output – Increasing enrolments in engineering fields should result in increased supply to the manufacturing sector in approximately 2-3 years.

Greater links between industry and education – Engagement with industry is a core mission under the National Strategy for Higher Education and recommendations aimed at ensuring the system is responsive to enterprise needs are being implemented. This includes structured employer surveys and interaction and increased work placement opportunities. The Higher Education Authority has also published guidelines for the establishment of higher education institutional clusters at a regional level to support enterprise development and employment needs.

Biopharma

The future development of the Biopharma sector in Ireland relies on providing the skills for the future and improving the perceptions of career opportunities in the sector. Some of the key findings in relation to the future of the sector include:

Raising Awareness of Careers within the Biopharma industry – A key challenge for the Biopharma industry is to attract more graduates from relevant disciplines to work in the industry.



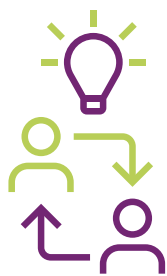
It is competing against other sectors of the economy, and from Biopharma companies abroad, for many of the graduates who have the skills sets required for Biopharma manufacturing.

Ensuring alignment of education and training provision with skill needs – Given the dynamic and changing nature of the Biopharma industry, it is essential that there is close and on-going engagement between the industry and education and training providers to ensure the relevance of programme content and delivery, particularly for Biologics manufacturing. A closer engagement will also facilitate the adaptation of programmes, where necessary, to meet emerging skills, knowledge and competency requirements of companies.

Improving the work-readiness of graduates – Biopharma industry value graduates with a balance of both “soft” and technical skills. Embedding the development of “soft skills” such as interpersonal, communications and problem-solving skills and relevant business skills into programmes and through work experience would help produce more balanced skillsets.

Retaining Talent – Biopharma companies have a vital role to play in putting best practices in place for the attraction, development and retention of talent. This is closely linked with increasing awareness of the work of the industry and its career potential. Differentiated strategies should be adopted for attracting different cohorts to the industry – e.g. new graduates, professionals with several years’ experience, levels 5/6 entrants, overseas talent, etc.

Invest in CPD – The pace of change in Biopharma markets, technology and processes means that workforce skills need to be continually updated. This includes the general challenge of achieving innovation and operational excellence, maintaining global standards of product and process compliance, and delivering on the specific.



9. Skills Demand and Supply

- Agri-Food Sector

9.1 Key Business Drivers within Agri-Food Sector

The review of literature has highlighted the following drivers in the agri-food sector:

Demographic and Social Changes – growing populations means greater demand on food supplies. There is also a growing adoption of western dietary habits globally placing increased demand on western food suppliers;

The Impact of BREXIT – the uncertainty around the future trading relationship between the EU and the UK and the trading relationship for agricultural products and food will be critical to the future of the sector in Ireland. Reduced access to the UK market through tariff barriers, a diminution of the value of the UK market through increased imports from lower cost countries, and the potential reduction in the CAP budget post Brexit all present significant threats to the future growth and development of the Irish farming and food sector. The uncertainty about the potential outcome of both withdrawal negotiations and agreement on a new EU-UK relationship make it impossible to estimate the real impact at this point.

Rapid Urbanisation – greater strain placed on land for urbanisation means less land for agriculture, also larger cities and towns means it is more difficult to get goods from field to market (greater distances to travel).

Changing economic conditions – commodity prices continually being squeezed reducing the profitability of the sector. In addition, more complex supply chains and the increased demand for fresh food to be pre-prepared adds new levels of complexity;

Climate change mitigation and resource scarcity – reduced level of raw product leading to issues of supply shortage. Innovative technologies to mitigate climate change are also adding additional cost to the industry

Improving technology – improving technology designed to use less resources and less space required for modern farming. Also, significant push from consumers to have increased food quality with traceability but also at a reduced price.

Food and Tourism Offering – Diverse range of outdoor recreational activities which include; food festivals e.g. Howth Prawn Festival, Flavours of Fingal; coastal village tourist's day trips which promote the culture of villages and sites; and fishing ports promote a visible theatre to the food landscape and a unique mix of urban, suburban, village coastal and rural settings.

9.2 Sector Size and Expected Growth

The agri-food sector is one of Ireland's most important indigenous sectors; it ranges from primary agriculture to food and beverage production, from fisheries and fish processing to forestry and forestry outputs. The sector employs 173,400³² people nationally which represents 8.3%³³ of national employment. Furthermore, the agri-food sector is embedded in local communities across Ireland and it contributes as a main economic driver in many rural areas in terms of direct and indirect employment and wealth creation.

Fingal is the principal county within Dublin for agricultural activities, and it is home to some of Ireland's largest horticultural businesses and contains a large cohort of producers, adding value



³² Brexit Fact Sheet – Irish Agriculture Food Sector (Department of Agriculture, Food and the Marine, 2018)

³³ Ibid

to food. The industry is characterised by many SMEs and is estimated to have 3,000 full-time jobs with a further 1,200 jobs being needed by 2025.³⁴

Total agri-food exports increased by 38% between 2010 and 2016 to €12.2 billion including growth in exports to the UK and the rest of the EU. The most significant export growth was seen in exports to non-EU destinations – 85%, which were driven by exports to Asia and America. Despite the growth in new markets, the UK remains by far our single largest trading partner for the agri-food sector. In 2016 the total agricultural food sector exports to the UK totalled €4.8billion, and imports were €3.7billion.



The table below details the increase in exports and job growth for the Agri-Food sector at the national level and for Fingal.

Agri-Food Sector Forecasts: National and Fingal

Agri-Food Sector	National	Fingal County Council
Exports	Forecast in 2015 year: 85% increase to €19 billion by 2025	Information not available
Number of Jobs	Forecast in 2015 year: 23,000 additional jobs by 2025 all along the supply chain from producer level to high end value added product development	Based on national growth projections, estimated growth of 1,200 jobs from 2015 to 2025 ³⁵

Source: FoodWise 2025

9.3 Summary of Critical Skills Gaps

Critical Skills Gaps - Agri-Food Sector

Sector	Occupation							
	Managers, Directors and Senior Officials	Professional, Associate Professional and Technical Occupations	Administrative and Secretarial Occupations	Skilled Trades Occupations	Caring, Leisure and Service Occupations	Sales and Customer Service Occupations	Process, Plant and Machine Operatives	Elementary Occupations
Annual Requirement up to 2023	2	1	n/a	83	n/a	n/a	n/a	21
Gap between supply and demand up to 2023 per annum	n/a	n/a	n/a	up to 83	n/a	n/a	n/a	up to 21

Source: RSM 2017

³⁴ Fingal job forecast are calculated based on the proportion of jobs creation from the national growth projections for the entire sector,

³⁵ This estimate has been produced by calculating the proportion of all employees in the agri-foods sector in Ireland (107,700, QNHS Q1, 2017) which are based in Fingal (5,600, QNHS Q1, 2017) – that is 5.2% - and applying that to national growth figures. So, given the projected growth figure (23,000, Food Wise 2025) nationally, we assume that 5.2% of this will be based in Fingal – so 1200 (23,000*5.2%=1196).

The critical skills shortages for the Transport & Logistics sector are:

ELEMENTARY OCCUPATIONS e.g. operatives and production level employees

The analysis indicates that there is a gap of up to 21 per annum in the supply of these skills in this occupation category; training is often through FET provision or private sector providers or companies.

On the supply side, the analysis highlighted:

Local Provision: There is no evidence of local supply of skills for this occupation group in this sector.

Broader Provision: The Dublin Campus of Teagasc provide some courses in relation to food management and food safety and the HACCP training that is a required prerequisite of employment in the agri-food sector. Each year there are 180 places from the food safety management courses of Teagasc. In addition, there is other private provision through the school of cookery in Dublin. However, it is unclear how many places are offered per annum.

The findings from the interviews with the sector highlighted that the main gaps in this group was regarding operatives and production level. There is considerable need for literacy, numeracy and basic ICT training, hygiene and HACCP training, as well as some specific areas including craft skills.

It is important to note that employees at elementary operative level often enter the sector from school and then need in-house training. A sizeable proportion of this training is provided in house e.g. health and safety training, machine operation training etc.

Like other occupations in the agri-food sector, there is stiff competition between companies in the sector for the people trained at this level. The elevated level of turn over and the perceived lack of company loyalty mean that a constant supply of people with these skills is needed. Whilst the analysis indicates that there is no specific skills gap between demand and supply it is important to note that the supply provided from these sources is sought after across Ireland and not the sole supply for Fingal. Therefore, the sector in Fingal needs to set itself apart from the agri-food sector in other parts of Ireland to ensure that the supply of trained people chose to work in Fingal. Key to this is the development of clear career paths so that those entering the sector at this occupation level understand how they can have the opportunity to pursue a career in the sector.



SKILLED TRADES OCCUPATIONS e.g. *Chefs, Sous-Chefs and Pastry chefs*

The analysis shows that there is a gap of up to 83 places in Skilled Trades Occupations per annum. However the agri-food sector is competing to attract chefs and food technicians to the sector in Fingal. The sector is competing against other businesses in the agri-food sector in Fingal and outside Fingal, but it is also competing with other sectors e.g. hospitality. The findings from the interviews with the sector highlighted that the main gap in this group was regarding chefs and other trained kitchen staff (e.g. sous-chefs, pastry chefs etc.).

On the supply side, the analysis highlighted:

Local Provision: There is no evidence of local supply of skills for this occupation group in this sector.

Broader Provision: There are two education institutions; Dundalk Institute of Technology (DKT) and the Dublin Institute of Technology (DIT) which offer a number of course relating to the required skills trade occupations. The course covers the theory and practice of all aspects of classical, international and ethnic cookery, along with hospitality knowledge and skills, catering technology, catering sectors and systems, menu planning, nutrition, and communications.

Dundalk Institute of Technology (DKT) provide two courses in Culinary Arts (level 6 & 7)

Dublin Institute of Technology (DIT) provide two courses in Culinary Arts (level 6 & 8)

Outside the Fingal area, there is some broader provision including a cookery school which provides approximately 170 skilled people per annum. However, it is clear from interviews with the sector that this is insufficient to meet demand due to competition from other sector both in Fingal and in nearby areas, especially Dublin City. The agri-food sector needs to engage with education providers to explore how better links and supply pathways can be developed between education and employment. This could be through the development of placements or providing better information to students in relation to the vacancies in the agri-food sector in Fingal.



9.4 Recommendations and Detailed Actions by Sector and Occupation

Recommendation		Responsibility	Action	Indicative Timescale ³⁶
Agri-Food Sector				
To address the gap in Skilled Trades Occupations of up to 83 places per annum to meet local business needs				
AF1	Locally, DDLETB to explore the possibility of establishing new courses through training centres in Fingal or through traineeship/apprenticeship provision for Chefs and Sous Chefs. See also Recommendation 56	DDLETB	See actions re: new course provision	Medium Term
AF2	Looking more broadly, lobby for an increase in places on Restaurant and Hospitality Skillnet Training Courses available in Dublin (including Kitchen Management Training, Restaurant Induction Bundle) and for these to be directed towards addressing Fingal needs	SSIG + Restaurant and Hospitality Skillnet	See actions re: increasing places on existing courses	Medium Term
AF3	Looking more broadly, CDETB Crumlin College of Further Education to increase places on Traineeship in Professional Cookery and Apprenticeship in Commis Chef and for these to be directed towards addressing Fingal needs. See also Recommendation 56	SSIG + CDETB	See actions re: increasing places on existing courses	Medium Term
To address the gap in Elementary Occupations of up to 21 places per annum to meet local business needs				
AF4	Locally, DDLETB to explore the possibility of establishing new courses through training centres in Fingal or through traineeship/apprenticeship provision for operatives, and production level employees. See also Recommendation 56	DDLETB	See actions re: new course provision	Medium Term
AF5	Looking more broadly, providers such as Teagasc (The Agriculture and Food Development Authority) to increase places on food industry training in Managing Food Safety through HACCP, Food Safety & Standards; Butchery and Small-Scale Meat Production; and Farmhouse Cheese Making and for these to be directed towards addressing Fingal needs.	SSIG + Teagasc	See actions re: increasing places on existing courses	Medium Term
Sector Leads Improving Sector Attractiveness				
AF6	Fingal County Council to work with the Commerce & Trade sector to make the sector more attractive to potential employees to support the development of the learning infrastructure and career paths.	Fingal CC Industry - Commerce & Trade	Sector leads model outlined in chapter 3 to be implemented	

³⁶ Short term = up to 3 months, Medium Term = 3 months – 1 year, Long term= more than 1 year

9.5 Conclusions

Key points emerging:

Develop work-based learning packages – for both elementary occupations and middle to senior managers there is a need for the agri-food sector to provide further opportunities for in-work training. For those in elementary occupations this should focus on numeracy, literacy and basic IT skills which should incentivise those in the roles to remain in employment rather than seek other employment with greater opportunities for learning and development. Providers and industry also need to examine how best to develop middle-management training and succession planning approaches for the sector.

Work Placements – Work placements should be part of all HE level courses both undergraduate and post graduate. Agri-food companies in Fingal should work with providers to develop suitable opportunities which will support the movement of graduate to employment in Fingal.

Improving Career Paths – for those employed in the sector in elementary roles it is vital that the sector come together to establish clear, agreed career plans to demonstrate to potential staff that the company has and will continue to invest in their future. This will support better retention of staff at the elementary occupation levels.

Attracting People to Fingal – the level of demand for managers and professionals in the sector is small and the supply exists to fill these. The key challenge for Fingal is ensuring that they see Fingal as a suitable destination for them. Given that managers and professionals are often well established in their careers Fingal also needs to market itself in terms of housing supply, education facilities, transport links and other well-being related measures that influence decision making in relation to career moves.

Marketing and International Selling Courses – the impact of Brexit is unknown and companies in the agri-food sector are unaware of the impact that Brexit will have on trade for food products between the UK and Ireland. In response, those in the sector need to be trained to identify and break into markets across the rest of the world. This will become more vital to the sector in the coming years.



10. Skills Demand and Supply

- Construction Sector

10.1 Key Business Drivers within Construction

Key drivers within the construction industry, highlighted in the literature reviewed, are as follows:

Ongoing research and development – innovation in waste reduction and making new products out of waste for the construction industry and other markets;

Increasing legislation pertaining to low carbon, zero carbon, waste management and renewables;

Commercial opportunities – but the consumer is driven by cost; social and environmental responsibility of low priority by comparison;

Limited lending from banks available to develop innovative technologies;

Threat of overseas competition within the EU in particular – already compelling evidence of improvement in skills in key areas such as retrofit

Structure of industry expected to shift; in part this could result from an increase in collaborations and mergers in previous years; and

Increase in modular housing.



10.2 Sector Size and Expected Growth

The sector in 2015 had a turnover value of around €13 billion, representing 6.2% of economic activity (GNP) and directly employed approximately 136,900 in Q2 2016, 6.8% of the total employed workforce. This report estimates that there will be 112,000 new jobs created by 2020 if the industry is to achieve the projected output in infrastructure, commercial, Foreign Direct Investment (FDI) and housing development roll-out.

Based on the Government’s Construction 2020 strategy forecasts for the construction sector, over 3,000 jobs are estimated to be created in Fingal within the construction sector³⁷. The table below details the job growth for the Construction sector at the national level and for Fingal.

Construction Sector	National	Fingal County Council
GDP Growth	4.1%–4.6% year on year between 2016 and 2020 (forecast made in 2016)	Information not available
Number of Jobs	From 2016 to 2020 an additional 60,000 jobs	Based on Government’s Construction Strategy, estimated growth of 3,000 jobs from 2016 to 2020

Source: FoodWise 2025

³⁷ This estimate has been produced by calculating the proportion of all employees in the construction sector in Ireland (136,900, Demand for Skills in Construction to 2020, Construction Industry Federation, 2016) which are based in Fingal (7,200, Census 2016) – that is 5.2% - and applying that to national growth figures by occupation. So, given the projected growth figure (60,000, National Skills Strategy 2025) nationally, we assume that 5.2% of this will be based in Fingal – so 3120 (60,000*5.2%=3120).

There are however several risks that this growth may not materialise. Key risks include:

Availability of finance - less investment may be forthcoming from UK investment companies and financial institutions, because of Brexit, which could jeopardise housing and non-residential development projects relying on non-domestic sources of finance. Other downside risks include:

Delivery Delays - Delays in delivering the policy targets and investment provisions in the Capital Plan and the Action Plan for Housing and Homelessness;

Lack of Scale Up - Failure of the supply side of the industry to scale up adequately to deliver the projected output level, particularly regarding skills;

Return to Tender Price Inflation - The return of tender price inflation as the industry expands over the coming years, and labour, materials and land costs come under pressure or become more difficult to source.

Lack of Private Sector Projects - A lack of finance for funding private sector projects.



10.3 Summary of Critical Skills Gaps

Critical Skills Gaps - Manufacturing / Biopharma Sector

Sector	Occupation							
	Managers, Directors and Senior Officials	Professional, Associate Professional and Technical Occupations	Administrative and Secretarial Occupations	Skilled Trades Occupations	Caring, Leisure and Service Occupations	Sales and Customer Service Occupations	Process, Plant and Machine Operatives	Elementary Occupations
Annual Requirement up to 2023	55	155	45	685	n/a	15	115	185
Gap between supply and demand up to 2023 per annum	n/a	up to 130	n/a	up to 407	n/a	n/a	up to 115	up to 137

Source: RSM 2017

The critical skills shortages for the Transport & Logistics sector are:

ELEMENTARY OCCUPATIONS e.g. *operatives and production level employees*

The analysis indicates that there is a shortage of 137 people per annum.

The findings from the interviews with the sector highlighted that the main gaps in this group was labourers.

On the supply side, the analysis highlighted

Local Provision: There is limited local supply through DDLETB Apprenticeships. There is an apprenticeship in construction with 48 places per annum.

Broader Provision: There is no evidence of broader supply of skills for this occupation group in this sector.

Supply of labourers was dramatically impacted by the economic crash – this meant that large numbers of labourers having been made redundant moved to find work in other countries. Many have not returned to Ireland. The supply of labourers is currently filled by a small number of domestic domiciled workers supported by large numbers of migrants from Eastern Europe. The challenge for the sector is to make the sector more attractive as a job prospect for people seeking to be involved in the sector before they move to the continent or further for employment. This can be achieved through investment in local large-scale infrastructure projects which will support the local construction sector.



PROFESSIONAL, ASSOCIATE PROFESSIONAL AND TECHNICAL OCCUPATIONS

e.g. quantity surveyors, architects, engineers

The analysis shows there is a shortfall of 130 Professional, Associate Professional and Technical Occupations per annum.

The findings from the interviews with the sector highlighted that the main gap in this group was regarding quantity surveyors and several specialist engineers. One of the key challenges was attracting the small number of people qualified in these areas to Fingal.

On the supply side, the analysis highlighted

Local Provision: TU Dublin Blanchardstown provides the Foundation Energy Skills training Programme, which is intended to provide know how and practical information for building construction workers with the intention of improving their skills and awareness of Quality, Energy Efficiency, Best Practice and System Thinking.

Broader Provision: There are a range of courses in quantity surveying and architectural technology in institutions near Fingal including Dublin Institute of Technology and Dundalk Institute of Technology.

Fingal needs to be marketed as a destination for graduates / experienced hires in this area through the development of quality housing and improving infrastructure to support greater commuting. Fingal also need to work with industry to market the area as a construction career destination. Potential professional recruits require the establishment of clear career paths so that employees see a future for themselves in the industry in Fingal.



PROCESS, PLANT AND MACHINE OPERATIVES

e.g. Plant and machine operatives; Routine inspectors and testers; Scaffolders, staggers and riggers; Construction operatives; Crane drivers; and Fork-lift truck drivers

The analysis indicates that there is a gap of up to 115 in this occupation category.

The findings from the interviews with the sector highlighted that the main gaps in this group was regarding Crane Drivers, Fork-lift Truck Drivers.

On the supply side, the analysis highlighted

Local Provision: There is no evidence of local supply of skills for this occupation group in this sector. Training will often be through private sector providers or in company, therefore there is a lack of comprehensive data on the supply side.

Broader Provision: There are bespoke training courses for these professions, however they are often completed whilst in employment. This is facilitated through targeted short courses for example completing part time and/or lasting between 1 and 3 days.

Industry must address gaps in these occupations by identify and offering upskilling to existing staff. Industry can meet with training providers to understand the courses on offer, places and costs.

10.4 Recommendations and Detailed Actions by Sector and Occupation

Recommendation	Responsibility	Action	Indicative Timescale ³⁸	
Construction Sector				
To address the gap in Professional, Associate Professional and Technical Occupations of up to 142 places per annum to meet local business needs				
C1	Locally, increase places on Bachelor of Engineering in Process Automation at TU Dublin Blanchardstown.	SSIB + TUD - B	See actions re: increasing places on existing courses	Medium Term
C2	Looking more broadly, HE providers – for example - DIT to increase places and for these to be directed towards addressing Fingal needs including Bachelor of Science (Hons) in Quantity Surveying; Bachelor of Science (Hons) in Architectural Technology; Bachelor of Science (Hons) in Structural Engineering and Automation Engineering.	SSIG + HE providers - for example DIT	See actions re: increasing places on existing courses	Medium Term
C3	Looking more broadly, HE providers – for example - DKIT to increase places and for these to be directed towards addressing Fingal needs including BSc (Hons) in Building Surveying, Bachelor of Science (Hons) in Architectural Technology, B.Sc. in Architectural Technology.	SSIG + HE providers - for example DKIT	See actions re: increasing places on existing courses	Medium Term
To address the gap in Skilled Trades Occupations of up to 402 places per annum to meet local business needs				
C4	Locally, increase numbers on Construction Apprenticeships from DDLETB. See also Recommendation 56	DDLETB	See actions re: increasing places on existing courses	Medium Term
To address the gap in Elementary Occupations of up to 137 places per annum to meet local business needs				
C5	Locally, DDLETB to explore the possibility of establishing new courses through training centres in Fingal or through traineeship/apprenticeship provision for construction labourers. See also Recommendation 56	DDLETB	See actions re: new course provision	Medium Term
Sector Leads Improving Sector Attractiveness				
C6	Fingal County Council to work with the Commerce & Trade sector to make the sector more attractive to potential employees to support the development of the learning infrastructure and career paths.	Fingal CC Industry - Commerce & Trade	Sector leads model outlined in chapter 3 to be implemented	

³⁸ Short term = up to 3 months, Medium Term = 3 months – 1 year, Long term= more than 1 year

10.5 Conclusions

Employers and the Council need to work with HE/ FET/ Private sector training providers, schools and colleges to tackle the gaps in resources. There needs to be ongoing monitoring and review of the gaps, in line with industry needs. Whilst growth in the sector is projected there are several risks that could constrain or impede this growth.

The Construction Sector needs to be an attractive career for relevant trades, professions and labourers in Fingal. This requires the sector to be marketed to young people studying in these areas, with a focus on demonstrating the leading-edge skills and expertise than can be gained alongside the career opportunities available locally.

Much of the skills/ resources gap is going to be driven by people leaving the sector (replacement demand). Therefore construction employers in the Fingal area should be encouraged and supported to encourage employees who can work to stay on in the sector. Policies such as flexible working etc should be encouraged.

Construction employers in the Fingal area should work with local HE institutions to encourage more places on professional occupation courses (e.g. Bachelor of Engineering in Process Automation) with a requirement for up to an additional 130 people per annum from these occupations. (Note employers need to inform HE of the breakdown of occupations needed and this should be projected 3-4 years ahead to allow intake levels to be planned for in line with projected growth).

Industry should invest in more apprenticeships to provide skilled trades people

The Sector should market the career options for young people at school and colleges regarding employment in sales and customer services roles. Setting out the opportunities for development and career paths that are available. Industry should ensure the salaries available for these roles are in line with other sectors.



11. Further Recommendations and Actions to Consolidate the Skills Supply in Fingal

The focus of the recommendations and action plan are to consolidate and build on existing good practice rather than duplicating existing activity and complementing other initiatives being delivered by organisations such as Regional Skills Fora, HEA, SOLAS and industry, etc. These require commitment and contributions from both education and training providers and industry/employers and some (in particular those involving significant new course provision are likely to require investment).

The role of the Skills Strategy Implementation Group (SSIG) will be to oversee, drive and implement the delivery of the Skills Strategy. The role of Fingal County Council will be to facilitate, co-ordinate actions and act as catalyst where appropriate (bringing relevant stakeholders together for example) and also steer the delivery of the strategy through a secretariat role. The role in co-ordinating the skills strategy also lends itself to the wider adult education agenda.

11.1 Implementing the Skills Strategy

Recommendation	Responsibility	Action	Indicative Timescale ³⁹
<p>G1</p> <p>Establish a Skills Strategy Implementation Group with a clear remit (set out in terms of reference and operating procedures) to include membership drawn from the established Advisory Group and others as appropriate and required.</p>	<p>Fingal CC / SSIG</p>	<p>Develop Terms of Reference for Skills Strategy Implementation Group (SSIG)</p> <p>Invite nominations to membership from current Advisory Group, from sector locally and from education/training providers, reflecting the breadth and range of recommendations.</p> <p>Draw up list of potential members and invite them to join the SSIG</p> <p>Develop operating procedures/protocols for the SSIG</p>	<p>Short Term</p>
<p>G2</p> <p>Fingal County Council to oversee the development of a Skills Strategy Implementation plan and then to co-ordinate and support its delivery through the Skills Strategy Implementation Group.⁴⁰</p>	<p>Fingal CC / SSIG</p>	<p>Develop Service Level Agreement setting out scope and responsibility of Fingal CC in supporting the SSIG – detailing secretariat function, resources required, deliverables etc.</p> <p>Support the SSIG in developing an implementation plan</p> <p>Co-ordinate workstreams within the implementation plan across stakeholders and strands of activity - tracking plans and progress</p> <p>Build and maintain constructive working relationships with all members of SSIG including in particular Chair of SSIG</p> <p>Regularly review progress against the strategy and revisit priorities on a regular basis.</p>	<p>Short Term</p>

³⁹ Short term = up to 3 months, Medium Term = 3 months – 1 year, Long term= more than 1 year

⁴⁰ To support the implementation, DCU can make available 30-years of research into Irish and European labour market interventions and their impacts conducted by Professor Justin Rami in the DCU School of Education to FCC, the Advisory Group and the SSIG. DCU can also signpost SSIG to several centre of good practice models within the EU which have developed tightly integrated skills development models with enterprise which may be worthy of a study visit (e.g. Germany, Nordics and Netherlands).

11.2 Monitoring Skills Supply and Demand

Recommendation	Responsibility	Action	Indicative Timescale ⁴¹
G3	Fingal County Council in conjunction with local HE providers (TU Dublin Blanchardstown, DCU) should consider how to maximise the current HE provision available throughout the county through all modes of learning including satellite facilities and/or online learning ⁴² .	<p>Fingal CC to initiate an audit of HE provision in the 6 key sectors reflecting both current and proposed provision (arising from agreed provision to meet identified needs as per recommendations in the strategy) and detailing mode and format of learning including satellite facilities and/or online learning.</p> <p>Fingal CC and HE providers to review audit and identify gaps (by sector, occupation, geography) and develop action plan to address</p> <p>Fingal CC to monitor and report on progress against actions</p>	Short Term
G4	<p>Local providers (including DCU, TUD - B, DDLETB and those in near proximity to Fingal such as CDETB and national agencies with a role in data collection and monitoring such as HEA and SOLAS) should pilot a destination survey to monitor the numbers of graduates/leavers who move on to employment in Fingal (to assist with ongoing monitoring of supply to address demand in the Fingal area).</p> <p>This should build on and complement existing surveys (such as those conducted on a national basis, or individual institutions' surveys – which may not specifically refer to Fingal at present).</p> <p>See also Recommendation 57</p>	<p>Fingal CC + Local providers (including DCU, TUD - B, DDLETB and those in near proximity to Fingal such as CDETB) + HEA + SOLAS</p> <p>Relevant stakeholders to work with Fingal CC to scope requirements for development and conducting pilot destination survey to monitor the numbers of graduates/leavers who move on to employment in Fingal</p> <p>Commission pilot destination survey</p> <p>Share findings and incorporate in future reviews/updates of the Implementation Plan.</p>	Long Term
G5	DDLETB to pilot a destination survey to monitor the number of apprenticeships and traineeships linked to the 6 key sectors in Fingal including course name, number of participants and destination of participants (i.e. employment within Fingal or not). This is to assist with ongoing monitoring of supply to address demand in the Fingal area). See also Recommendation 7	<p>Fingal CC / DDLETB</p> <p>Fingal CC and DDLETB to agree template/nature of information required and frequency of reporting</p> <p>DDLETB to report on apprenticeship and traineeship numbers – in schemes in Fingal and those whose destinations are Fingal – on at least annual basis (to inform future planning)</p>	
G6	Fingal County Council to work with education providers ⁴³ and agri-food industry to monitor the demand and supply of people with international selling and marketing skills in the Agri-food sector .	<p>Fingal CC Education providers Industry – agri-food</p> <p>Fingal CC to hold regular update sessions with representative of the Agri-food sector to monitor the demand and supply of people with international selling and marketing skills.</p> <p>Fingal CC and Agri-food representatives to agree actions to address supply issues of people with international selling and marketing skills.</p>	Long Term

⁴¹ Short term = up to 3 months, Medium Term = 3 months – 1 year, Long term= more than 1 year

⁴² TUD - B are developing a digital campus to support online delivery. Programmes already have been developed for online delivery and are also enhanced through online tools. If a need is recognised for a campus in another area or delivery outside of Blanchardstown, TUD - B are open to discussion depending on demand and viability

⁴³ TUD - B are very happy to work with Fingal CC and industry in this area

11.3 Information and Promotion/Awareness Raising

Recommendation		Responsibility	Action	Indicative Timescale ⁴⁴
G7	Fingal CC to explore options to market the range of skills provision available in the area to raise awareness of opportunities for training and also in terms of career pathways (covering breadth and range of provision including FE, HE, upskilling/CPD, etc.)	Fingal CC	Fingal CC to explore options to market the range of provision to meet local business needs	Medium Term
			Fingal CC to agree action plan.	
			Fingal CC to monitor and report on progress against actions	
G8	Fingal CC to explore the feasibility of developing a skills information hub signposting employers, those in employment and those seeking employment to training provision in the area, and other training resources (including online resources) in partnership with Dublin Regional Skills Forum.	Fingal CC / SSIG / DRSF	Identify existing/available resources	Long Term
			Identify host for skills hub	
			Develop skills hub – tailoring resources to Fingal skills supply and demand	
			Launch skills hub	
G9	Fingal CC should work with Springboard+ Programme providers (for example DCU , TUD - B and others) to explore options to market and encourage participation on the range of Springboard courses to meet local business needs. This should include support both for those currently unemployed and those in employment seeking to upskill.	Fingal CC and Springboard + providers	Fingal CC to engage with Springboard+ providers to explore options to market and encourage participation on the range of Springboard courses to meet local business needs	Medium Term
			Fingal CC and Springboard+ providers to agree action plan.	
			Fingal CC to monitor and report on progress against actions.	
G10	All stakeholders to promote the use of income supports and investment to assist learners	DDLETB / DEASP	DDLETB and DEASP to engage with stakeholders to ensure all are aware of the income supports available to learners.	Short-Medium Term

⁴⁴ Short term = up to 3 months, Medium Term = 3 months – 1 year, Long term= more than 1 year

⁴⁵ DCU will have just under 400 Springboard+ places to offer in 2018

⁴⁶ TUD - B are happy to provide Fingal CC with details of Springboard+ programmes that are funded for 2018/19 for marketing purposes

11.4 Developing the Skills Pipeline

11.4.1 Engaging Employers in Skills Development

Recommendation	Responsibility	Action	Indicative Timescale ⁴⁷
Supporting SMEs and micro-enterprises to manage, recruit and retain talent			
G11	SSIG Local training providers (including Fingal Dublin Chamber, LEO, DDLETB, DCU Centre for Family Business, DCU Ryan Academy, TUD - B, DEASP)	SSIG and local providers to collate details of HR and other training support focused on staff retention and upskilling SSIG and local providers to disseminate information to SMEs and micro-enterprises	Medium Term
G12	SSIG (along with local providers: LEO, Fingal Dublin Chamber, DDLETB, DCU Centre for Family Business, DCU Ryan Academy, TUD - B, DEASP) to explore the development of a training package / workshop / guidance / support for micro / SMEs companies in Fingal to learn about effective approaches to training and development and other actions to support the retention of staff ⁴⁹ . One element (in terms of understanding skills gaps) could be the Skills Audit Toolkit (EI/DES).	SSIG and local providers to scope out requirements for interventions SSIG and local providers to develop pilot interventions SSIG and local providers to implement pilot interventions SSIG and local providers to evaluate interventions	Medium Term
G13	Fingal County Council to explore the development of a local/tailored programme for micro-enterprises based on the Go Global model run by DCU for EI focused on internationalising businesses	Fingal CC and DCU to scope out requirements for local tailored programme Fingal CC to work with DCU to develop a pilot variation of the Go Global programme with specific approach, goals, target businesses aimed at addressing local business needs, etc. Fingal CC and DCU to implement local Go Global programme Fingal CC and DCU to evaluate intervention	Medium Term
G14	Fingal County Council to explore mechanism for an advertising and promotional campaign to encourage businesses in the county to align expenditure on training and development to industry benchmarks. This could be linked to the awards ceremony detailed in Recommendation 71.	Fingal CC SSIG Seek evidence including from members of SSIG (through academic research) on industry benchmarks, benefits of investing in skills, etc Identify appropriate dissemination channels and target audience Develop and launch advertising and promotional campaign	Medium Term

⁴⁷ Short term = up to 3 months, Medium Term = 3 months – 1 year, Long term= more than 1 year

⁴⁸ DCU can make case studies available from Ryan Academy DCUBS and Centre for Family Business to illustrate the range of supports on offer

⁴⁹ TUD - B works with industry including SMEs and micro-enterprise where possible to support such initiatives – some of this is done directly with academic schools in TUD - B and some through the LINC Centre – TUD - B would be happy to work with Fingal CC to enhance such engagement

⁵⁰ TUD - B works with industry including SMEs and micro-enterprise where possible to support such initiatives – some of this is done directly with academic schools in TUD - B and some through the LINC Centre – TUD - B would be happy to work with Fingal CC to enhance such engagement

11.4.2 Engaging Schools/Pupils in Skills Development

Recommendation	Responsibility	Action	Indicative Timescale ⁵¹
G15 SSIG members, industry sector leads other relevant stakeholders with existing relationships with schools to develop supports, toolkits, information packs for students at Transition Year or Leaving Cert. level on career opportunities and pathways, skills needed and study routes. This should build on existing good practice e.g. DRSF Tourism Insight initiative (driven by sector, career pathway etc.); DEASP/SICAP TY/Leaving Cert programme run in Blakestown and due to roll out to Balbriggan and beyond in 2019 including work readiness. It should also reflect the recent review of TY/Careers' Guidance.	SSIG Industry sector leads / SSIG members	SSIG to work with Industry sector leads and others to develop resources for students at Transition Year or Leaving Cert. level on career opportunities and pathways, skills needed and study routes.	Long Term
		SSIG to engage with Guidance Counsellors in order to pilot in schools	
		Fingal CC to oversee the development of of the resources and pilot/ delivery.	
G16 DEASP to work with SICAP programme implementers to design and pilot support to school leavers in the transition from school and educate them in the options on leaving school	DEASP / SICAP	Identify the schools	Medium Term
		Design a curriculum	
		Identify and measure KPIs,	
		Agree the respective roles of schools, SICAP PI and DEASP.	

11.4.3 Engaging Job Seekers in Skills Development

Recommendation	Responsibility	Action	Indicative Timescale ⁵²
G17 Fingal County Council should work with stakeholders (employment support programmes and providers) to explore options to address the elementary occupation skills gaps. Relevant stakeholders include the state's public employment service (managed by the Department of Employment Affairs and Social Protection (DEASP)) and including Intreo centres, Job Clubs and employment support programmes such as: Community Employment Programme ⁵³ , Tús ⁵⁴ , Local Employment Service ⁵⁵ , LEADER ⁵⁶ supporting people to return to work. With regards to social inclusion and "hard to reach" groups in particular, Social Inclusion & Community Activation Programme (SICAP) providers such as Empower should also be included.	Fingal CC / employment support programmes and providers	Fingal CC to engage with employment support providers to explore options to address the elementary occupation skills gaps	Medium Term
		Fingal CC and employment support providers to agree action plan (including actions highlighting benefits for employees/potential employees, actions to bring "hard to reach" groups closer to employment, actions to engage employers, etc.).	
		Fingal CC to monitor and report on progress against actions	
G18 DEASP to examine the scope for an improved linkage in the training pipeline between Community Employment Schemes	DEASP	DEASP to review existing Community Employment talent pipelines and identify gap between available and required skills and progress strategies for developing skills workers to fill those gaps (such as admin, catering, office, retail, childcare, etc.)	Medium Term
G19 DEASP to continue to work with jobseekers seeking to advance business propositions through income support and business planning in association with SICAP programme implementers	DEASP / BAP	DEASP and SICAP PI to continue to work together to assist start up enterprises through income support and small start up grants.	Short-Medium Term

^{51,52} Short term = up to 3 months, Medium Term = 3 months – 1 year, Long term= more than 1 year

⁵³ Helps long-term unemployed people to re-enter the active workforce by breaking their experience of unemployment through a return to work routine. The programme assists them to enhance and develop both their technical and personal skills. The CE programme is sponsored by groups wishing to benefit the local community. DEASP gives financial support. Criteria for participating on CE programme based on age, length of time in receipt of various social welfare payments.

⁵⁴ Provides short-term, quality work opportunities for those who are unemployed and to provide certain services of benefit to communities. While responsibility for operation of Tús rests with the DEASP, it will be managed at a local level, on the Department's behalf, by the Local Development Companies through Pobal.

⁵⁵ Provides a local gateway, or access point, to the full range of services and facilities that are available to help jobseekers to enter or return to employment. Key services include a job placement service, progression planning in terms of training or development opportunities for jobseekers relevant to their career action plan, career guidance and liaising with local employers to identify vacancies and match to suitable jobseekers.

⁵⁶ Dublin Rural LEADER's main aim is to strengthen the rural economy and to improve quality of life in rural areas through focusing on key principles of innovation, sustainability, social inclusion and economic viability. Funding of €6.4m available for a six-year programme to promote community-led projects such as: Supporting companies to start up or expand; Promoting tourism development; Tackling social exclusion; Strengthening community facilities; Supporting youth groups; Protecting and improving biodiversity; Supporting renewable energy

11.5 Industry Sector Lead Engagement

11.5.1 Sector Leads Linking with Education/Training providers

Recommendation	Responsibility	Action	Indicative Timescale ⁵⁷	
Engagement between industry and education/training providers: role for industry				
G20	Industry sector leads to explore links with schools to engage with students via "adopt a school" ⁵⁸ (including link to TY), careers talks, work experience or career-pathway information in order to better inform students of the careers in their sectors and the skills required for the roles / occupations.	Fingal CC	Identify industry sector champions in Fingal (from SSIG members or other industry representative groups)	Medium Term
		SSIG	Identify target schools and events	
		Industry sector leads	Prepare resources/material	
			Engage with schools	
G21	Industry sector leads to improve and expand links with FET and HE to support course design and development (co-creation) as well as offering work placements and internships ⁵⁹ . See also Recommendation 52	Education providers (including DCU, TUD - B, DDLETB)	Identify industry sector champions in Fingal (from SSIG members or other industry representative groups)	Medium Term
		Industry sector leads	Identify good practice resources in relation skills development	
			Share good practice via fora, seminars, networking events, bulletins	
G22	Industry sector leads to explore mechanisms to share good practice in relation to skills development through fora, seminars, networking events, bulletins including for example: developing case studies (1 per sector)	Fingal CC	Identify industry sector champions in Fingal (from SSIG members or other industry representative groups)	Long Term
		SSIG	Identify good practice resources in relation skills development	
		Industry sector leads	Share good practice via fora, seminars, networking events, bulletins	
G23	Industry sector leads and education/training providers (HE / FET) and other stakeholders to develop innovative pilot programmes to support specialist high value skills development in growth areas ⁶⁰	SSIG	Identify high value skills development growth areas	Long Term
			Identify education/training providers and industry leads to develop pilot programme	
		Industry sector leads	Develop pilot programme	
			Recruit participants	
			Deliver pilot programme	
G24	Industry sector leads to explore how best to link with enterprise centres in the Fingal region and increase churn	Industry sector leads	Identify enterprise centres/ offerings of interest relevance to sectors and skills strategy actions	Medium Term
			Engage with enterprise centres to identify areas of mutual interest/areas for action	
			Develop joint action plan and implement	

⁵⁷ Short term = up to 3 months, Medium Term = 3 months – 1 year, Long term= more than 1 year

⁵⁸ An existing "Adopt a School" initiative developed with involvement from CIF

⁵⁹ Course design and development is led by industry and market need through industry engagement identifying needs and also involving industry in the validation process of such programmes – TUD - B are happy to engage with industry further to enhance this process.

⁶⁰ The Learn & Work apprentice model is led by industry need – for example the Learn & Work in Processing Instrumentation was led by the need of pharma industries in Fingal. TUD - B are happy to enhance this engagement and provision where necessary

11.6 Industry Sector Lead Engagement

Recommendation		Responsibility	Action	Indicative Timescale ⁶¹
Enhance Levels of Practical Experience in HE and FET Courses				
G25	Where relevant and appropriate, work placements and apprenticeship-style programmes should be an integral part of HE and FET level courses both undergraduate and post graduate. Work placements and apprenticeship-style programmes should focus on supporting students to acquire transversal skills to equip them for the world of work ⁶² . See also Recommendation 65	Education providers (including DCU, TUD - B, DDLETB) Industry sector leads	Education providers to audit current provision aligned to Fingal skills needs in the key sectors to identify those courses which include work-placements, apprenticeship-style programmes, transversal skills, etc For current provision aligned to Fingal skills needs in the key sectors, education providers to develop appropriate content to develop transversal skills, etc and incorporate work placements, etc.	Medium Term
G26	Businesses should work with HE/FET - for example in co-designing courses and offering placements etc. - to ensure courses include skills needed for work ⁶³ .	Education providers (DCU, TUD - B, DDLETB) Industry – sector leads	For current provision aligned to Fingal skills needs in the key sectors, education providers to develop links with relevant industry in order to co-design appropriate content to develop transversal skills, etc	Medium Term
G27	Education providers to explore piloting initiatives such as transfer pathways between FE and HE, Co-Op model (including paid work placements), etc. to maximise routes to acquire relevant and appropriate skills to meet industry needs ⁶⁴	Education providers (DCU, TUD - B, DDLETB) Industry – sector leads	Education providers to research models of good practice in relation to transfer pathways, work placement/Co-Op models, etc Education providers to identify shortlist of 2-3 approaches to pilot in Fingal Education providers with industry to pilot innovative approach(es) in Fingal	Medium - Long Term
G28	Industry leads for the construction, manufacturing, engineering and hospitality sectors in Fingal to work to promote and advertise the apprenticeship and traineeship routes to people seeking careers in these sectors.	Industry leads/ members of SSIG DDLETB	Industry leads in sectors to engage with DDLETB to identify current apprenticeship and traineeship provision Industry leads and DDLETB to identify routes to promote and advertise current apprenticeship and traineeship provision	Medium - Long Term
G29	Industry leads for the 6 sectors in Fingal to work with DDLETB and SOLAS to identify areas of shortage in apprenticeships and traineeships and to lobby for increased numbers of apprenticeships and traineeships in Fingal to address and meet local business needs. See also <ul style="list-style-type: none"> • commerce and trade (retail, hospitality) – Recommendations 8, 10, 11, 13, 15, 118 • professional services– Recommendation 22 • transport & logistics – Recommendation 28 • manufacturing/biopharma – Recommendation 37 • agri-food – Recommendations 40, 42, 43 • construction – Recommendations 49, 50 	Industry leads DDLETB SOLAS	Industry leads in sectors to engage with DDLETB to identify current apprenticeship and traineeship provision, compare with skills needs as identified in this study and gaps Industry leads and DDLETB to work together to develop /co-design appropriate apprenticeship and traineeship provision to address identified needs in Fingal	Medium - Long Term

⁶¹ Short term = up to 3 months, Medium Term = 3 months – 1 year, Long term= more than 1 year

⁶² TUD - B have developed an apprentice mode of delivery (Learn & Work) which they are looking to expand; work placement is also being introduced to programmes in which it does not exist in the coming years. ETBI have also developed a module on Transversal Skills in relation to apprenticeships and traineeships

⁶³ TUD - B already engage with industry through panels for designing of new programmes and review of programmes; industry are also involved in delivery where possible as guest speakers and also work placement; industry also are involved in interview panels for lecturers ETBI have also developed a module on Transversal Skills in relation to apprenticeships and traineeships

⁶⁴ TUD - B already work with the FE colleges to identify pathways into the programmes at TUD - B and have developed an apprentice model which includes paid work placement

11.7 SSIG - Leading by Example

Recommendation		Responsibility	Action	Indicative Timescale ⁶⁵
G30	SSIG to undertake several pilot projects aimed at finding ways of providing rapid skills development to support the needs in the high value occupations e.g. ICT etc. ⁶⁶	SSIG Education & training providers Industry sector leads	Identify skills gaps/areas that have affinity with rapid skills development Identify education/training providers and industry leads to develop pilot programme Develop pilot programme Recruit participants Deliver pilot programme Evaluate pilot programme	Long Term
G31	SSIG to enhance and continue support in all formats for industry awards or conferences within the county area (hosting and/or other involvement). This would recognise best practice in Fingal businesses in relation to skills development and allow opportunities for networking.	SSIG Fingal CC (as secretariat to SSIG) Chamber LEO	Identify current awards or conferences allied to skills development (for example through LEO or CofC - such as Chamber Business Awards event which includes CSR award category for Development in people) Scope potential for Fingal CC to get involved or develop bespoke event Agree timing, content, location, target audience Practical arrangements – venue, PR, speakers, invitations, etc Host event	Long Term
G32	SSIG to explore options for sponsorship of placements within relevant courses for graduates who could address existing gaps in council resources	SSIG Fingal CC (as secretariat to SSIG)	Identify current sponsorship of placements Scope potential for Fingal CC to get involved or develop bespoke sponsorship Agree timing, content, provider, target audience Launch sponsorship	Long Term

⁶⁵ Short term = up to 3 months, Medium Term = 3 months – 1 year, Long term= more than 1 year

⁶⁶ TUD - B work in conjunction with ICT Ireland Skillnet to respond rapidly to such needs and would be happy to support this aspect of the strategy for Fingal also.

11.8 Skills Future Proofing

Recommendation		Responsibility	Action	Indicative Timescale ⁶⁷
G33	SSIG to undertake feasibility or options appraisal of the need for greater education provision through for example: the development of existing or new facilities and the introduction of greater levels of virtual or distance learning – reflecting the baseline in terms of existing provision as well as the scale and diversity of unmet skills needs and variety of potential provision to address this	SSIG Fingal CC (as secretariat to SSIG)	Scope out /develop terms of reference for appraisal	Medium Term
			Commission appraisal	
			Oversee appraisal	
			Present findings/ recommendations to SSIG for review	
G34	SSIG to undertake research into the impact of emerging technologies and changing demography on the labour market and skills in Fingal (this is part of a continuous development cycle).	SSIG Fingal CC (as secretariat to SSIG)	Scope out /develop terms of reference for research	Long Term
			Commission research	
			Oversee research	
			Incorporate findings/ recommendations into next update of SSIG review of implementation of action plan	

⁶⁷ Short term = up to 3 months, Medium Term = 3 months – 1 year, Long term= more than 1 year

SKILLS STRATEGY ADVISORY GROUP

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