Midlands
IRELAND

Midlands ICT Cluster Skills Survey Report

Midlands IRELAND

REGIONAL ENTERPRISE PLAN MIDLANDS

Regional Skills MIDLANDS

Contents

Background & Context

Midlands Regional Skills Forum

The role of the Midlands Regional Skills Forum (MSRF) is to bring people together at local and regional level, to identify, interrogate and validate skills needs, and to ensure that employers and enterprise are linked with the appropriate resources across the education and training system. The MRSF provides an opportunity for employers and the education and training system to work together to meet the emerging skills needs of their regions. The MRSF work to ensure the availability of skills and talent to realise the region's economic potential and address upskilling requirements.

Skills has been identified as a key 'enabler' of the Midlands Regional Enterprise Plan to 2024, underpinning the implementation of the Strategic Objectives and corresponding actions.

The MSRF leads a number of key activities in the Midlands:

- **acting at local and regional level, to drive forward the National Skills Strategy;**
- **assisting local enterprises identify skills needs to ensure that the region has the effective use of skills to support economic and social prosperity.**
- **linking (once skills needs have been identified) companies with regional education and training providers best suited to responding to identified skills need; and**
- **assisting with actions in the Midlands Regional Enterprise Plan (MREP) where linkages to Education and Training Providers are required.**

The Midlands ICT Cluster Action Plan to 2027

The ICT Sector is recognised as an area of Smart Specialisation within the Midlands Regional Enterprise Plan (MREP) to 2024. As a key action of the MREP, academia, public and private sector stakeholders have established a regional Midlands ICT Cluster to 'embrace all elements of the ICT industry' towards economic growth and to achieve the optimal potential from ICT for enterprises and people within the region.

The Midlands ICT Cluster Action Plan is an outcome of the Midlands Regional Enterprise Plan to 2024. The Midlands ICT Cluster Action Plan was developed by key regional stakeholders under the direction of the Steering Committee[1] for delivery on the vision of the Midlands ICT Cluster:

To be Europe's leading ICT cluster in Digital Innovation, creating opportunities for people and business in regional growth sectors, driving knowledge creation, sustainability and resilience.

The vision will be achieved through the implementation of the Action Plan which outlines a programme of work around four thematic areas, aligned to working groups:

1. Cluster Development Working Group
2. Marketing Working Group
3. Skills & Talent Working Group [2]
4. R&D, Collaboration and ICT Eco-system Working Group

The MRSF is a member of the Midlands ICT Cluster Steering Committee and the Skills & Talent Working Group.

[1] *See Appendix 1 Midlands ICT Cluster Steering Committee Members*

[2] *See Appendix 2 Midlands ICT Cluster – Skills and Talent Working Group Members*

Actions assigned to Skills & Talent Working Group in the Midlands ICT Cluster Action Plan:

Challenges / Opportunities	Actions	Outcomes
Education: Early pathways to ICT: **Develop more ICT aware educators to encourage higher take-up of STEM, ICT and computer science programmes among learners.**	• Deliver suitable programme for young people (primary level) to be introduced to ICT – demystify ICT . • Develop and implement STEM, ICT and Computer Science at 2nd Level. • Implement more industry focused projects at 2nd Level. • Increase the levels of practical engagement between students, industry and business.	Increased human capital as regards STEM, ICT and computer science at primary, second, third and fourth level.
Education: Covering educational lifecycle (3rd Level): **Provide ICT graduates technical knowledge of innovation changes in targeted industrial sectors.**	• Embed "live" case studies and industry informed projects in ICT courses. • Ensure industry participation in course design and delivery in ICT programmes. • Establish ICT student placement programme with industry which promote problem solving. • Create structures to encourage students and researchers to take up employment with start-ups and SMEs.	Graduates who can deliver Digital innovation solutions to targeted industry sectors.
Professional Development of active workforce: **Creating the right professional skillset, mindset and approach.**	• Provide additional skills to ICT professionals in the delivery of innovative ICT solutions to targeted vertical sectors. • Deliver a series of Inter-industry seminars creating awareness of target industry specific innovation processes and challenges for ICT providers. • Establish an inter-industry and interdisciplinary community of practice focused on identifying collaboration opportunities and technical solutions. • Establish a system of micro credits in advanced technologies and digital innovation by Education Service Providers.	Digital Innovation Product and Service solution provision experts.
Growing the Regional ICT workforce: **Increasing the number of ICT professionals in the region.**	• Establish and promote ICT training and career opportunities to non-ICT workforce and return-to-work staff. • Provide ICT Digital Innovation conversion courses. • Establish an industry sponsored internship programme for graduates. • Promote accessible industry certification models and pre-apprenticeship programmes.	A critical mass of ICT professionals capable of delivering the regional Digital Innovation agenda.
Attraction and retention of talent: **Enticing top-class international researchers, engineers, inventors, scientists, and entrepreneurs to work and settle in the Midlands.**	• Create a database of ICT job opportunities in the region. • Create a relocation portal as a one-stop-shop for people wishing to relocate to the Midlands. • Establish an ICT professional network to promote training, employment, research opportunities, and career development in the region. • Target regional remote workers to avail of careers opportunities in the region.	Establish the Midlands Region as a leading destination for ICT graduates, postgraduates and experienced professionals in Digital Innovation.

Source: Midlands ICT Cluster Action Plan 2027

To underpin the pursuit of these actions, the MRSF, with assistance from industry, regional education and training partners, designed the ICT Skills Survey to elicit a snapshot of opinion on current and future skills needs of Midlands ICT companies, an understanding of which is imperative to grow the ICT sector in the region and deliver on the vision of the Midlands ICT Cluster.

Midlands ICT Skills Survey – Methodology

The survey was conducted from Q4 2022-Q2 2023.

The ICT Skills Survey team was led by MRSF Manager John Costello. All members of the ICT Cluster Skills and Talent Working Group played key roles in the development, distribution, and data analysis. Operational management of the survey including design, participation monitoring, and data collation was overseen by MRSF.

The strategies employed by the survey team to promote participation in the survey by Midlands ICT companies included:

- **Midlands Regional Skills Forum.**
- **Midlands Regional Skills Forum targeted communications and presentations.**
- **Midlands ICT Cluster Steering Group & constituent Working Groups.**
- **Midlands Regional Enterprise Plan.**
- **Midlands ICT Cluster Steering Group and constituent Working Groups networking engagements.**
- **MidlandsIreland.ie website and social channels.**
- **Promotional exposure via MidlandsIreland.ie website and other Midlands ICT Cluster affiliate channels.**
- **Face-to-face contacts at regional manufacturing events.**
- **Social Media contacts (Email, LinkedIn, Twitter, etc).**

The sample frame consists of 15 companies which employ over 3,000 persons. Participation in the survey was voluntary. All responses are fully protected in accordance with GDPR guidelines. The full survey is available to view in Appendix 3.

The survey aligns with Future Jobs Ireland strategic message, with a focus on Skills and Talent. The survey sought to identify Critical Vacancies, Key Skills Needs, and other related Strengths, Weaknesses, Opportunities, and Threats (SWOTs) relevant to the Midlands ICT Cluster. MRSF undertook this survey on behalf of the Midlands ICT Cluster – Skills & Talent Working Group and would like to extend its appreciation to the companies who participated in the survey.

The survey has provided both insights and data that will inform and guide the Midlands ICT Cluster – the MRSF, Education and Training Boards (ETBs), Higher Education Institutes, and Skillnet Ireland in facilitating the recruitment and development of talent which is most relevant for ICT employers in the Midlands region. The survey results will also inform the development and provision of high quality and sustainable education & training at all levels.

Recommendations formulated after collaborative review of the collated data by the survey team, will guide the MRSF and its regional stakeholders as they engage with employers to identify and avail of the most suitable regional and national supports that will best address current and future critical vacancy and training needs of each business.

Company Sizes

Participation in the survey was well distributed across the sample frame in terms of company size

Total Number of Employees
Range = 1 – 1250.
Mean = 202.6.
Median = 12.
Mode = 200.

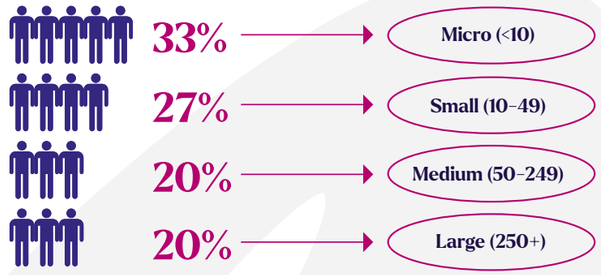

Figure 1: Size of company (number of employees)

Company Sector

Of the companies surveyed, 47% self-classified as ICT service focused.

Respondents included ICT Product focused businesses, ICT Service focused businesses, and other business sectors where the application of ICT is a key differentiator.

ICT Key Differentiator - ICT as a characteristic of your firm that separates you from key competitors and gives you a perceived advantage in the eyes of your target audience.

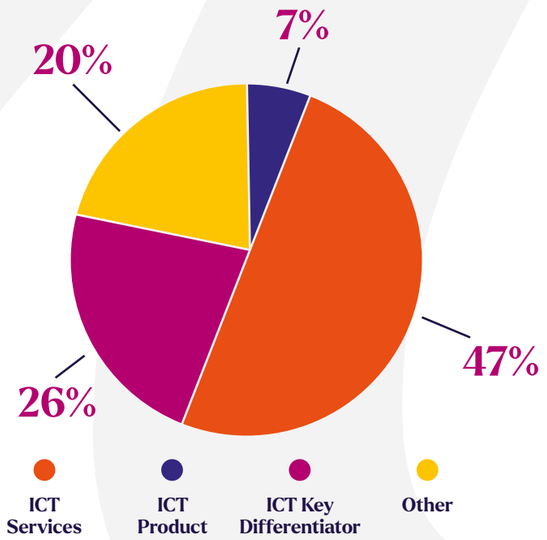

Figure 2: Company area of ICT focus

With over 50% of companies offering services and/or products in traditional ICT Categories, it was recorded that in addition to these, companies are also offering services in emerging technologies which are advancing the twin transitions of digitalisation and sustainability, in areas such as Immersive Technologies, Data Management, Inventory control and customised Mechanical, Electrical, and Plumbing (MEP) systems.

The innovation of ICT companies in the region and the diversification of sectors served is verified by the survey findings, where the top 4 business verticals* supported from ICT companies in the Midlands are:

- **Pharma and Med Tech**
- **Manufacturing**
- **Public Sector**
- **Financial Services**

We provide a platform for service providers and end users to meet.

We provide software teams to Telecoms and Finance clients.

We provide teams of software developer to our clients.

Managed IT Services for - focus on Software and Hardware Support aimed at MEPs.

5G Software development, for Network Management and Cloud RAN.

Flexible solutions for upskilling, streamlining operations, and to create immersive visual experiences.

We provide Data Analytics Services.

We provide installation and configuration of all things IT.

Expert Teambuilding software cloud & digital transformation projects.

Mobile Software Development - Frontend & Backend.

Delivery of technology to support healthcare across the Irish health service.

Automobile Parts and Services.

We provide reports & analysis to help determine how products are competing in the marketplace.

MEP contract companies working on large infrastructure projects,

Descriptions of Goods & Services provided by survey participants (respondent statements).
**A business vertical (aka a vertical marketplace) is a niche marketplace where suppliers serve a specific business audience within a particular industry.*

Key Survey Findings

Key Survey Findings

Critical Skills Vacancies

Critical Vacancies can be defined as – unfilled roles or positions within an organisation that significantly affect key performance measures such as revenue, costs, quality or customer-engagement metrics, or are critically important to the business strategy.

Over 70% of respondents have critical vacancies:
Top 10 categories of Critical Vacancies:

- **Technical Support**
- **Cloud Architect**
- **Back End Software Development**
- **System Architect**
- **Cybersecurity**
- **Front end Software Development**
- **DevOps Engineer**
- **Technical Programme Manager**
- **Business Analyst**
- **Data Analyst**

Key Skills Needs

The term "Key Skills" in relation to this survey can be defined as a skill or qualification achieved through formal education and training. Typically offered as certified courses and/or modules. Thus, "Key Skills Needs" as a variable assessed in the ICT survey are the Key Skills that are most relevant and highly sought after according to the needs of survey participants.

Over 90% of survey participants identified Key Skills Needs within their companies:

50%+ cite the following as key skills needs:
- **Cloud Computing**
- **Software Development**

40% cite the following as key skills needs:
- **Data Analytics**
- **AI & Machine learning**

25% cite the following as key skills needs:
- **Cyber Security**
- **Networking/Wireless**
- **IT Service Management**
- **Project Management**

Companies indicated that they have both talent and skills needs at all organisational levels, from Leadership Management through Senior & Middle Management and further along to Graduate and Entry-Level.

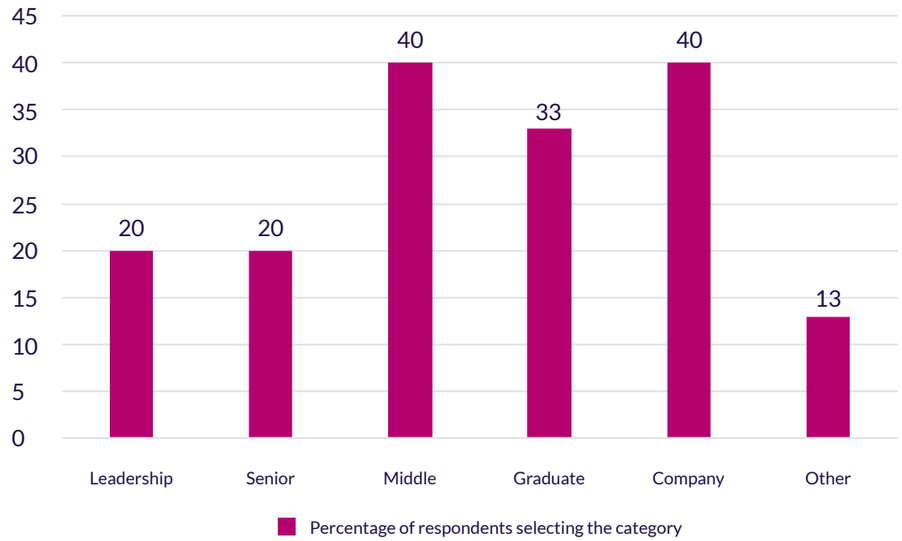

Figure 3: Seniority level where respondent companies require talent

Cybersecurity

Cybersecurity is the practice of protecting systems, networks, and programs from digital attacks. These cyber attacks are usually aimed at accessing, changing, or destroying sensitive information; extorting money from users via ransomware; or interrupting normal business processes.

It is noteworthy that Cybersecurity is identified as a Critical Vacancy, and ranks lower than other areas in terms of Key Skills Need. This is most likely due to other areas being viewed as 'essential' for the business to operate and a need for greater awareness of the risks to all sectors from a cyber security attack.

Addressing Skills Needs

Addressing Skills Needs

Current Course Provision

In addressing skills needs identified, respondents were asked if they felt current course provision of education providers could address needs. Over 70% said yes, however in a supplementary question, 30% of respondents indicated that they would like additional information in relation to current course provision from various education providers.

> **"We tend to promote from within. We have found that graduates have been too weak and getting individuals with some work experience often results in better longer-term outcomes for both us and them."**

Course Delivery

Survey respondents indicated that they have a preference for blended learning solutions, both on and off site with half day release being the preferred option of the employer.

Recommendations:

- **Graphic for Pathway for career progression utilising current course provision across all service providers.**

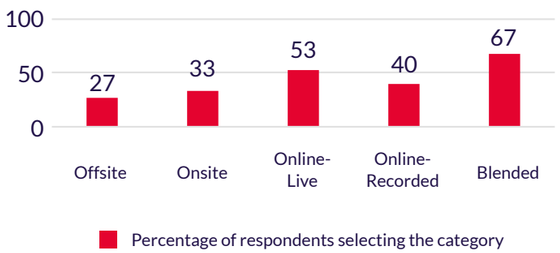

Figure 4: Preferred Format for Course Delivery

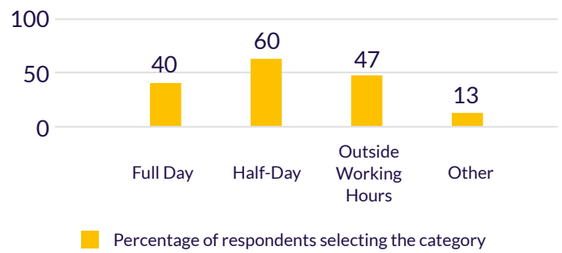

Figure 5: Preferred Time Frame for Training Schedule Other = hybrid of all, self directed

Recommendations:

- **Co-creation of bespoke online courses.**

Actions of the Midlands ICT Cluster – Talent & Skills Group

Respondents were asked if there was a willingness to become involved in specific actions assigned to the Talent and Skills Group.

The top three areas where respondents would like to contribute to and /or of interest were:

1. Collaboration with regional ICT and Education stakeholders in the areas of Research & Development.
2. Current Apprenticeships and the development of new Apprenticeships.
3. Participation in initiatives and Programmes which promote career opportunities in the ICT sector to Secondary Schools.

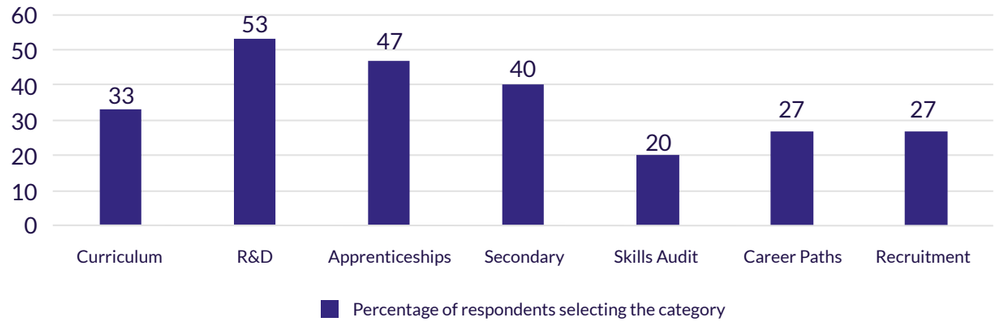

Figure 6: Areas which respondent companies wished to learn more about

In respect of Collaboration with regional ICT and academia in the areas of Research & Development it is noteworthy that the existence of the Midlands ICT Cluster is facilitating greater interaction between industry and academic institution(s) in respect of a technology transfer or research project, with 53% citing that this was the first opportunity extended to them.

Recommendations:

The MRSF will lead on the collation of data in respect of the following with ICT Cluster members and make this available to the Marketing & Communications Working Group for promotion on Midlands ICT Cluster webpage and LinkedIn page:

1. **Overview of R&D and Technology Transfer programmes operating within the Midlands Region.**
2. **Current ICT Apprenticeships and the identification of gaps and development of new Apprenticeships to fill gaps identified.**
3. **List of current programmes which are offered to schools in the region which promote career opportunities in the ICT sector to Primary and Secondary Schools.**

Talent Recruitment

Respondents were asked of their intention to hire additional staff over a 1-3 year time horizon.

“93% of respondents indicated that they anticipate running recruitment campaigns for additional staff, while the overall number of additional staff they intend to hire is anticipated to be in the region of 800 additional staff.”

This number is significant in that the survey is a sample of companies operating in the ICT sector across the Midlands Region. This figure serves to validate the identification of the ICT sector as an area of growth and smart specialisation for the region. Companies indicated that given the prevailing tight labour market, it is expected that some positions would have to be filled from outside the country, in the European Union and beyond.

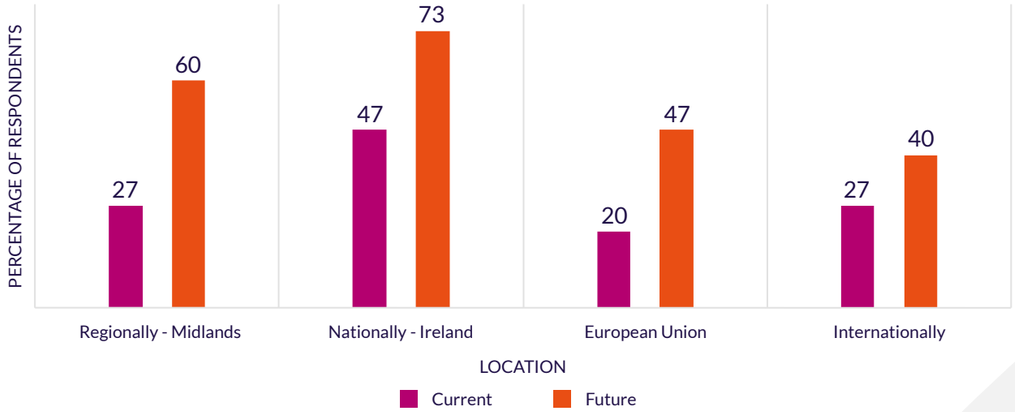

Figure 7: Anticipated location of qualified candidates to fill any Current or anticipated Future Vacancies

The survey identified as significant barriers to recruitment:

- **Lack of available skills in the market**
- **Access to accommodation**
- **Lack of formal education and training programmes**
- **Lack of understanding of progression paths within the sector**

Whilst it is acknowledged that access to accommodation is a barrier to recruitment, it is a national priority of government and is outside the scope of this survey.

Recommendations:

- **Development of Higher Quality Apprenticeships at Level 8/9 which follow on progression from FIT Level 6. Broaden the scope to include XR Technologies, Design Principles, and advancements in User Experience platforms.**
- **Educational Institutions develop modular Micro-Credential short courses with Industry input incorporating the most current technological advancements and digital innovation.**
- **Raise awareness at all organisational levels of ICT career pathways and upskilling initiatives available in order to actively promote professional development opportunities. Roadmap of all courses to be developed showing career Pathways.**
- **Promotion of ICT careers in the Midlands, building on the success of Longford Dreamspace and Vex Robotics.**

“Higher quality apprenticeships that last longer than 2 years (standard for FIT level 6). A level 8 / level 9 apprenticeship would be great.”

“Promotion of careers in ICT in the Midlands. More focus on Research and promotion of outcomes.”

“Collaboration with universities to develop accredited micro-courses.”

“Educational institutions develop specialized curricula that specifically focus on XR technologies, covering topics such as XR development, design principles, user experience, and application areas beyond gaming, such as education, training, healthcare, and enterprise.”

“Good baseline salary + added on cost of living, and other benefits. Health, Pensions, Savings Schemes, Public Travel, Bike to Work.”

“More face to face training programmes for our employees both to boost engagement and build on our talent development programme.”

“Ensuring that managers are cultivating and curating our internal talent - and not hoarding it for their own benefit. Also ensuring that people are encouraged and supported to expand their knowledge through tuition reimbursement and career transitions.”

“Online portals are suitable but are not standardized in the Irish education system. It would be great to have an accredited degree or certificate that is directly related to on-the-job work.”

“Raising eHealth profile at open days and other events.”

Initiatives proposed by survey participants that may help solve their talent needs (respondent statements).

Case Studies

Mersus – Empowering Talent through Internal Training and Apprenticeship

Introduction:
Mersus Technologies is a software company headquartered in Athlone, focusing on Immersive Technologies. Mersus specialises in the development of Virtual Reality (VR) training applications and other immersive technology solutions. They are renowned for their expertise in crafting VR software, with their standout product being the Avatar Academy VR Learning Experience Platform. Mersus Technologies takes immense pride in its exceptional track record and unwavering success in human resource development. As pioneers in the emerging field of Immersive Technology, they understand that a traditional entry pathway into a career in Immersive Technologies does not exist. Recognising this challenge, they have adopted a creative staffing model, prioritising the attraction and retention of the right talent, which has resulted in a thriving team of twenty-five skilled professionals. Their commitment to creating a Deliberately Developmental Organisation has played a pivotal role in crafting an effective Learning and Development (L&D) Programme. Treating their workforce with utmost dignity and respect, embracing a "whole person" approach to human resource development, empowering individuals, and acknowledging their unique contributions have fostered a cohesive and magnetic workforce at Mersus.

Challenges Faced:
In the dynamic realm of Immersive Technology, identifying individuals with conventional qualifications or direct software development experience poses a challenge. Mersus adopted a unique approach, valuing motivation and potential over traditional skills, to assemble a creative and boundary-pushing team.

Solution Implemented:
Mersus Technologies established a comprehensive L&D program to address this challenge, focusing on nurturing creativity and immersive coding skills. In one of the several solutions they employ, they collaborated with Fast Forward into Technology (FIT), incorporating an apprenticeship in Software Development to enrich the learning experience for candidates. This program is centred around peer mentoring, iterative development, and dedicated time for exploration, research & development (R&D).

Results Achieved:
In just two years, one particular candidate who joined Mersus through this branch of their L&D programme, with no prior software development experience, transformed into a highly skilled Immersive Developer, capable of leading teams and driving innovation. The internal training and mentorship program, combined with the FIT apprenticeship, equipped them with the expertise and knowledge to excel in their role.
The success of their L&D Programme, along with the emphasis on motivation and aptitude in talent identification, significantly contributed to Mersus' growth and reputation as a leading tech organisation specialising in immersive applications. Their commitment to embracing diversity, including neurodiversity, further enriches their team and paves the way for continued success.

Conclusion:
Mersus' commitment to a Deliberately Developmental Organisation ethos has cultivated an empowered workforce that drives innovation in Immersive Technology. Their strategy of nurturing creativity, embracing diversity, and valuing motivation have positioned them as front-runners in this dynamic field.

"I never imagined I could achieve my dream job right near my home as an Immersive Developer, but Mersus Technologies believed in my potential and guided me every step of the way. Their mentoring program with FIT's Apprenticeship transformed my life and allowed me to pursue my passion for VR. Mersus provided me with the opportunity to learn and grow, and their support has been invaluable. This has been a life-changing opportunity." : Immersive Developer Mersus Technologies

VEX Robotics and Offaly County Council

VEX Robotics is an educational robotics platform that encourages students to learn about STEM (Science, Technology, Engineering, and Mathematics) through designing, building, and coding robots. VEX Robotics offers different challenges for different age groups from 8 to 18 years. The VEX Robotics platform includes various components, such as metal and plastic parts, motors, sensors, and a programmable microcontroller. Students can use these components to design, build, and program robots to complete specific tasks or challenges. The platform encourages problem-solving, critical thinking, collaboration, and creativity among participants.

One of the most notable aspects of VEX Robotics is its annual robotics competition called the VEX Robotics Competition where teams of student's design and build robots to compete in various challenges on a standardised playing field. This competition helps to motivate students to be efficient and innovative in their robot-design having to adapt to a different competition each year where they can show off their robot-building capabilities and compete against other schools.

In Offaly, the VEX Robotics programme was first introduced in 2018, with teachers and students given equipment, training, and support from Offaly County Council to engage with the competition from an educational and competitive viewpoint. The 2022/2023 school year was the 4th year for the programme and competition to be held in Offaly and over 70 schools from the county participated. The programme is now rolling out across the wider Midlands region, and feeds through to national and international level with over 60 countries taking part, making it the largest robotics competition in the world.

Jobs and employment opportunities are changing, and primary school students are at the perfect age to begin their STEM education. This is a unique school programme, and it gives our children their first opportunity to learn about engineering, coding, and robotics. Overall, VEX Robotics plays a significant role in promoting hands-on learning, problem-solving skills, and technological literacy among students, while also providing an exciting and engaging way to explore the world of robotics and engineering.

These programmes will spark interest in students with career opportunities in advanced manufacturing, software engineering, robotics engineering and computer-aided design all allowing students to develop their skills and expertise. The VEX Programme in Offaly also encourages a 50/50 split of male to female participants with the aim to decrease the gendered imbalance in STEM careers by giving male and female students the same experiences and education relating to STEM careers.

Chief Executive of Offaly County Council, Anna Marie Delaney, said "VEX Robotics is just one of a few exciting initiatives Offaly County Council is supporting to drive STEM education, research, and jobs. This programme really demonstrated the interest amongst our young people in Offaly to engage with STEM with over 2000 students involved this year. Students develop teamwork, critical thinking, project management, and communication skills required to prepare them to become the next generation of innovators and problem solvers."

"We are delighted to be working with the primary and post-primary schools in Offaly and it really demonstrates the interest amongst young people to engage with STEM at the earliest opportunity. The competition really highlighted their creativity and innovation, and credit must go to the students and their teachers. The innovation, imagination, and creativity on display proves that the students in Offaly have the skills for an exciting future." Ray Bell, Head of IS/ Broadband/Digital, Offaly County Council.

Microsoft Dream Space and Longford County Council

Longford was one of only two counties chosen to pilot this initiative. The collaboration between Microsoft Dream Space, Microsoft Ireland's STEM innovation and education programme, OurKidsCode and the Department of Rural and Community Development, as well as the participating schools and clubs, began with the 'do your: bit' challenge in September 2022. The initiative formed a foundation stone in Longford County Council's Digital Strategy which aims to have Computer Science a Leaving Cert option in all 9 secondary schools in the county. By introducing technology to primary schools, the strategy is working to create the later demand for Computer Science as the children move through the education system.

In October 2022, the Microsoft Dream Space education team visited Mullinalaghta Community Centre BCP where over 100 pupils from four local primary schools took part in a hands-on STEM education session. By January 2023, all Longford Primary Schools were invited to take part in the initiative. Twelve primary schools registered to the programme, with each receiving 10 micro:bit devices, which are a great introduction to computational thinking, problem solving skills and critical thinking. Over a 10-week period, Microsoft Dream Space provided online tutorials to the teachers, training them on the micro:bit devices, and how to encourage creativity and collaboration through STEM. All participating primary schools had the opportunity to participate in the Microsoft Dream Space do your: bit challenge, culminating in them pitching their digital innovation projects to judges at Dream Space, a STEM learning hub located in One Microsoft Place in June 2023.

Longford County Council also hosted their own local do your: bit local (Longford) challenge in May 2023. The pupils were asked to use their micro: bits to create a project that linked to any of the UN Sustainable Goals. The Longford Showcase event saw over 300 primary school children from 11 schools present projects and learnings from this programme. The project was also supported by industry partners Ericsson and HP who exhibited on the Showcase Day. Having already presented at the local Dream Space Showcase event, the students then also attended the Microsoft Dream Space event in Dublin, giving the primary school pupils and the local Our Kids Code clubs an exciting opportunity to present and showcase their micro:bit projects to an even wider audience.

Longford County Council is committed to continuing the operation of these programmes under the Longford STEAM Programme uniting educational initiatives in the subjects of Science, Technology, Engineering, Arts and Mathematics.

Speaking after her school won the inaugural Longford Tech All Star Perpetual Award Cup, teacher at St Joseph's National School Beatrice Shanley said, "We are just blown away by this whole process. This was the most amazing thing I've ever experienced as a teacher within County Longford. The whole process from the very beginning, week by week, generated so much creativity, inclusivity, and interest among the children. I've never seen a project quite like it. It was wonderful for us as teachers, to be learning alongside the children as we all worked through the programme together, with great support from Microsoft Ireland and Longford County Council throughout. I honestly couldn't speak highly enough of the project, and I know that the younger classes are already talking about next year's event. It's really giving Longford primary schools a running start at the new curriculum subject areas of mathematics, science and technology."

Chief Executive Paddy Mahon added, "It's clear already that the success of this initiative, as a key part of Longford's Digital Strategy, will act as a catalyst towards the digital transformation of Longford. Longford County Council is committed to continuing to help children to learn, work and navigate everyday life in our digital world though the Longford STEAM programme."

Zinkworks – Learning and Development

What do we do at Zinkworks?
We are a services company in the Telco, Finance and Automotive industries. Our clients hire us as leading experts to develop cutting edge technologies for their portfolios. To date, we have provided full-scale automation and cloud management solutions on a variety of projects ranging from Network management to 5G Network Slicing. Our development teams have deep mobile network domain knowledge with decades of experience delivering ICT solutions. We have L&D programs dedicated to educating newcomers in the ICT industry. We partner with FIT to provide apprenticeships to people in the Midlands area who have no prior experience in the ICT industry. We work with our clients to place these apprentices in software teams, giving them the opportunity to take on responsibilities and learn on-the-job. Recently, Zinkworks has partnered with the Technological University of the Shannon (TUS) to form a €2 million cognitive technologies management research group. Together, we will develop a prototype to autonomously manage a port's eco-system including cranes and vehicles that transport shipping containers. This will help the current challenges with global supply chains by alleviating congestion in ports.

How does L&D fit into what we do?
Zinkworks' success and longevity hinges on our people's success and longevity.
We developed our motto with this in mind:

Zinkworks - "Building a community where people can grow and be at their best"

We have a high standard when interacting and delivering to our clients. Three principles drive our core values throughout the company: Learning, Professionalism and Teamwork. These three principles shape how we conduct ourselves every day. Learning and Development is therefore a big part of the company. We pride ourselves on a strong learning culture where all employees can upskill in new technologies and dive deeper in their respective domains. Communities of practice are a large part of Learning and Development in Zinkworks. We have weekly meetups with different internal communities such as the Kubernetes Focus Group or the Scrum Master Water Cooler. A deep domain knowledge is required for our teams. We have developed a suite of internal courses and workshops in the Telecoms domain. Collaboration is key to how we work, so we try to design courses and learning initiatives with a collaborative element in mind.

What is the future for L&D at Zinkworks?
Building on what we have achieved so far, we will be placing a large emphasis on innovation and enabling our teams to experiment with new ideas. We will be focusing on collaborating across domains and accounts to find common learnings and solutions. This is an exciting new strategy for L&D at Zinkworks and we look forward to seeing where it will take us.

Cluster Membership

Cluster Membership

Benefits of Cluster Membership

The benefits of industry clustering is well researched, and proven to be a driver of growth in regions across Ireland, Europe and globally. The most effective clusters develop a collaborative network which:

- **Provides a clearly defined area of smart specialisation reflecting regional technological leadership.**
- **Offers trust-based collaborative platforms to members.**
- **Develops member-based networks built around future growth areas.**
- **Creates economic growth based on member commitment to knowledge creation and sharing.**
- **Works to develop solutions to industry challenges and to create new market opportunities.**
- **Provides public private partnerships developed by design.**
- **Allows for the development of large-scale collaborative projects.**
- **Provides proven drivers for regional economic growth.**

80% of respondents of the survey expressed interest in being included in the Midlands ICT Cluster Directory which is currently in development.

You can keep updated on the latest developments by following the Midlands ICT Cluster on LinkedIn or visiting MidlandsIreland.ie/business/ict-cluster/

Appendices

Appendix 1: Midlands ICT Cluster Steering Committee Members

Members of Midlands ICT Cluster Action Plan Steering Committee

- Sinead Pillion, Ericsson & Chair
- Dr Anne Cusack – Chair of Midlands Regional Enterprise Plan
- Pat Gallagher, CE Westmeath CoCo & Designated Regional Chief Executive
- Paul Madden, Zinkworks
- John Mee, Sidero, Chair of Skills & Talent WG
- Dr Enda Fallon, TUS, Chair of R&D and Collaboration/ EcoSystem WG
- Emmet Kavanagh, Midlands Ireland, Co-Chair of Marketing & Promotion WG
- Micaela Oster, Zinkworks, Co-Chair of Marketing and Promotion WG
- Colm Forde, Principal Officer, Department of Enterprise, Trade & Employment
- Aileen Cramer, Zinkworks
- Carol Greene, IDA Regional Manager
- Mark Atterbury, Enterprise Ireland
- Orla Martin, Offaly LEO, representing regional LEOs
- John Costello, Midlands Regional Skills Forum
- Sarah Morgan, Programme Manager, Regional Enterprise Development Plan
- Eileen O'Meara Hayes, Regional Enterprise Development Plan

Appendix 2: Midlands ICT Cluster – Skills and Talent Working Group Members

Members of Midlands ICT Cluster Action Plan Working Group - Skills and Talent

- John Mee, Sidero –Chair of WG
- John Costello – Midlands Regional Skills Forum
- Dr Enda Fallon – TUS
- Caroline Spollen – LOETB
- Tom Grennan – LWETB
- Cian Prendergast – Ortus
- David Caulfield - Zinkworks
- Brenda Mannion - Mersus Technologies
- Christine Collins, Broadband Officer Longford CoCo
- Ray Bell – Head of IT Offaly CoCo / VEX Robotics
- Antoinette Brennan, Broadband Officer Laois CoCo
- Joe Connaughton - Appadvisor
- Richard Coen - Emarkable.ie
- Brian Egan - Purpledecks
- Barbara Quinn - Infuse Programme Ericsson
- Paul Hourican - Recruitment Ericsson
- Sarah Morgan – Programme Manager, Regional Enterprise Development Plan
- Eileen O'Meara Hayes, Regional Enterprise Development Plan

Appendix 3: Midlands ICT Cluster Skills Survey 2023

This survey for the ICT sector and other sectors which require ICT talent in the Midlands is designed to identify Critical Vacancies, Key Skills Needs, and Levels of Upskilling required to ensure alignment among regional employers, education & training providers, and supporting agencies. The survey should take approximately 10 minutes to complete. All data collected will be held in strict confidence according to GDPR guidelines. Aggregated results will be published in a Survey Report.

1. Company Name
2. Contact Name
3. Contact Email
4. What Size Category is Your Company? (based on number of Employees)
   - ☐ Micro (<10)
   - ☐ Small (10-49)
   - ☐ Medium (50-249)
   - ☐ Large (250+)
5. Approximately how many employees does you company presently have?
6. Is your company :
   - ☐ a Product Company in the ICT Sector.
   - ☐ a Services Company in the ICT Sector.
   - ☐ in another business sector where application of ICT is a key differentiator.
   - ☐ in another business sector where application of ICT is NOT a key differentiator.
   - ☐ Other
7. What general category(s) of ICT is the focus of your company? [Can select multiple answers.] [if "Other" is selected, then please specify].
   - ☐ Software Development
   - ☐ ICT Infrastructure Services & Support
   - ☐ Digital Services (i.e. Media & Marketing)
   - ☐ Security
   - ☐ Digital Transformation/ Digital Transition
   - ☐ Managed Services
   - ☐ Other
8. Within the general category(s) that you selected in question 7 above; briefly specify the goods and/or services that your company provides.
9. What business Verticals(s) does your ICT product or service offering address? [Can select multiple answers.] [if "Other" is selected, then please specify].
   - ☐ Telecoms
   - ☐ Pharma & Med Tech
   - ☐ Manufacturing
   - ☐ Public Sector
   - ☐ Financial Services
   - ☐ Utilities
   - ☐ Education
   - ☐ Consumer & Retail
   - ☐ Automotive
   - ☐ Healthcare
   - ☐ None
   - ☐ Other

10. Hard to fill/ Critical Vacancies. [Can choose multiple].

- [ ] Back End Software Developer
- [ ] Front End Software Developer
- [ ] DevOps Engineer
- [ ] Ux Specialist
- [ ] System Architect
- [ ] Cloud Architect
- [ ] Technical Project Manager
- [ ] Technical Support
- [ ] Business Analyst
- [ ] Cyber Security Expert
- [ ] Testers
- [ ] IT System Integrator
- [ ] Data Analyst
- [ ] IT Network Installation
- [ ] Embedded Systems Designer
- [ ] Electronic Engineer
- [ ] None
- [ ] Other

11. Key Skills Needs [can choose multiple].

- [ ] Cloud Computing
- [ ] Data Analytics/ Data Science
- [ ] Cybersecurity
- [ ] Networking/ Wireless
- [ ] Software Development
- [ ] AI & Machine Learning
- [ ] IT Service Management
- [ ] IT Systems Integration
- [ ] Embedded Systems Design
- [ ] Project Management
- [ ] Electronic Engineering
- [ ] Other

12. Do you intend to hire new ICT staff over the next 1-3 years? Type 'Yes' or 'No' as your answer.
If you answer 'Yes', then please give an approximate number of staff you intend to hire.

13. To fill any Current Vacancies; where are you confident that you can find qualified candidates? [can choose multiple answers].

- [ ] Regionally - in the Midlands
- [ ] Nationally
- [ ] European Union
- [ ] Internationally
- [ ] Unsure
- [ ] No Current Vacancies
- [ ] Other

14. To fill any anticipated Future Vacancies; where are you confident that you will be able to find qualified candidates? [can choose multiple answers].

- ☐ Regionally - in the Midlands
- ☐ Nationally
- ☐ European Union
- ☐ Internationally
- ☐ Unsure
- ☐ No Future Vacancies anticipated
- ☐ Other

15. Could the upskilling needs for your employees be addressed by currently available training programmes from local/national education & training providers.
(i.e. Universities such as TUS:MMW, ETBs, Skillnets) ? [Can select multiple answers]

- ☐ Yes
- ☐ No
- ☐ Would like information on available training programmes

16. What format of training best suits the needs of your company? [Can select multiple answers]

- ☐ Offsite at an Educational Provider.
- ☐ Onsite at your company.
- ☐ Online - interactive webinars/ workshops. (Live)
- ☐ Online - interactive webinars/ workshops (Recorded)
- ☐ Blended format - with elements of Offsite/ Onsite/ Online
- ☐ Other

17. What time-frame best suits to release staff for up-skilling? (If "Other" then please specify.)

- ☐ Full Day Release
- ☐ Half-day Release
- ☐ Outside Working Hours
- ☐ Other

18. Please select from the following organisational levels where you require talent.
[Can select multiple answers].

- ☐ Leadership Management
- ☐ Senior Management
- ☐ Middle Management
- ☐ Graduate/ Entry Level
- ☐ Company Wide
- ☐ Other

19. Which of the following areas would be of interest for your company to find out more information about? [Can choose multiple].

- ☐ Curriculum Development - Collaboration with regional Further & Higher education providers.
- ☐ Research & Development - Collaboration with regional ICT/ Education stakeholders.
- ☐ Current Apprenticeships and the Development of new Apprenticeships.
- ☐ Participation in initiatives/ programmes which promote career opportunities in the ICT Sector to Secondary Schools.
- ☐ Company Skills Audit Plan provided by the Midlands Regional Skills Forum.
- ☐ Development of a conceptual Career Progression Pathway Flowchart for the ICT sector.
- ☐ Recruitment Services & Support.
- ☐ Other

20. Have you had previous interaction with an academic institution on a technology transfer/research project?

- ☐ Yes
- ☐ No

21. What is your biggest challenge to attract and retain talent?

22. What initiatives would you like to see happen to help solve your talent needs?

23. Do you consent to the company being listed in an online directory for the Midlands ICT Cluster?

- ☐ Yes
- ☐ No

24. Are there any other ICT-related areas that your company would like more information about?

25. Please indicate here any questions/ concerns about this survey or additional information you would like the Midlands Regional Skills Forum to help you with.

WWW.MIDLANDSIRELAND.IE

MIDLANDSIRELAND-IE

@MIDLANDSIRELAND

MIDLANDSIRELAND.IE

MIDLANDSIRELAND

Midlands IRELAND

REGIONAL ENTERPRISE PLAN MIDLANDS

Regional Skills MIDLANDS