MEETING THE FUTURE TALENT CHALLENGES OF ADVANCED DIGITAL SKILLS NEEDS IN ORGANISATIONS

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Trinity College Dublin

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1. Topic Introduction and Motivation

1.1. Background

The Leading Advanced Digital Skills (LEADS) project is responsible for identifying the future Advanced Digital Skills (ADS) demands across Europe and the actions required to support the Digital Decade targets of over 20 million ICT specialists. The project is aimed at providing recommendations to equip organisations and education providers with the necessary advanced digital skills in this rapidly changing technology environment.

Workpackage 3 will be developing a series of practical guidelines for addressing the current and future supply of ADS in order to achieve optimum impact. In order to do this, a key deliverable for the project, is the creation of a series of tailored events to capture industry and higher education inputs on the challenges for ADS talent development and to provide insights into the potential solutions to meet such challenges. Trinity Business School, Trinity College Dublin is part of the consortium addressing these challenges.

In March 2023 the first workshop was organised by Universidad Politécnica de Madrid (UPM). The second workshop aimed at providing inputs to the project, was hosted by Trinity Business School (TBS) at Trinity College Dublin (TCD) on May 4th 2023. The purpose of this paper is to outline the findings from the second workshop.

1.2. Workshop Summary

Workshop 2 was titled - **"Meeting the future talent challenges of advanced digital skills needs in organisations".** This topic was chosen in order to inform the insights found in Workpackage 1 (WP1), which revealed increasing demands of the skills represented in the LEADS framework. Most of these experienced notable growth with those skills related to AI and data analysis being the ones with more prominent demand growth, followed by cloud and IoT.

The aim for this workshop was also to build on the findings from Workshop 1 hosted by UPM and to create insights to inform the specific topic of leadership in ADS skills. The goal of this session was to engage with leaders who are at the coalface of attracting ADS talent and who have a high demand for talent in this area. The specific objectives of the roundtable were as follows:

1. To share data currently collated by the LEADS WP1.
2. To develop an understanding of the challenges of filling the ADS talent pipeline needs in organisations.
3. To discuss potential solutions for addressing those challenges.

The invite list was created with the objective of ensuring a group of participants with a diverse range of views and perspectives. Three groups were represented in the workshop; business, industry representative bodies, research institutes and academics who work closely with industry.

A range of industries were represented by senior managers with operational and functional responsibility in the areas of technology, talent acquisition, innovation and strategy. Organisations represented included Intel, Amryt, Deloitte, PWC, Inzio, Salesforce, Citigroup, Fidelity International and businesses who are scaling up for growth with high-demand digital talent requirements.

Industry representative bodies included leaders from the American Chamber of Commerce, Dublin Chamber of Commerce, and Insurance Institute of Ireland, ICT Skillnet and IDA Ireland. The roundtable was an opportunity for key leaders to be involved in shaping the future in an area that is moving at pace and is critical for all organisations. Figure 1 illustrates the diversity and range of participants present.

Figure 1 Roundtable participants

2. Workshop Implementation

2.1. Workshop Structure

The intention of this event was to ensure maximum input from the participants and therefore a roundtable format was chosen as the most appropriate format for the event. The roundtable discussion was held in person at Trinity Business School by TCD, on May 4th, 2023 from 10 a.m. to 12 p.m., and supported by Bluspecs and Universidad Politécnica de Madrid (UPM). It was hosted by Professor Laurent Muzellec (TBS) and supported by Professor Na Fu (TBS) , Dr Julie Byrne, Assistant Professor Social Studies at TCD, Audrey Crosbie, Industry Liaison manager TCD, Shirley Kavanagh Research Fellow (TBS) and Flora Thibeaudeau Research Assistant (TBS). In attendance also was Ana Moreno, Full Professor of Software Engineering from UPM.

The session contained three distinct activities:

1. Presentation of data and insights developed in WP 1 including the latest market data and future predictions.
2. Panel discussion with representatives from leading organisations (Ericsson and Microsoft) to present the challenges they face and how they are addressing those challenges.
3. Roundtable discussion to enable participants to have an opportunity in small groups to discuss (a) the challenges they face in their industry in acquiring ADS talent to meet their demands, and (b) the solutions that could potentially address these challenges.

The 2-hour workshop had an almost 95% attendance rate, with 38 confirmed industry attendees and of the 38 attendees, 13% were academics and 87% had backgrounds in industry/industry representative bodies and consulting. Table 1 provides a breakdown of those in attendance:

Participants	Number
Industry	23
Industry Representative Body	7
Academia/University rep	5
Research Centre/Government bodies	3
Total Participants	**38**
LEADS Team (TBS, UPM, BluSpecs)	10
Panellists	2
Volunteer Scribes	3
Total present at the event	**53**

Table 1. Workshop attendees

Feedback from the roundtable discussion was very positive and there was a high level of interest in the topic.

Table 2 shows the agenda for the workshop:

Time	Session

10:00	Introduction
	• Welcome and outline of the workshop
	  Prof. Laurent Muzellec (TCD)
	• Key data on Advanced Digital Skills demand predictions
	  Brendan Rowan (BluSpecs)

10:15	Panel Discussion
	• Challenges in meeting Advanced Digital Skills pipeline
	  Fiona Williams, Director of Research, Ericsson
	  Kieran McCorry, CTO Ireland, Microsoft
	  Prof. Laurent Muzellec (TCD)

10:35	Round Table Breakout 1 • Identification of challenges facing industry in ADS talent acquisition and retention Facilitated by Prof. Na Fu (TCD)
10:55	Plenary
11:10	Round Table Breakout 2 • Identifying solutions to top 3 ADS talent challenges
11:30	Plenary
11:40	Closing

Table 2. Workshop agenda

2.2. Panel Speakers

Three panel speakers were invited to participate in the workshop. They were selected for their extensive knowledge and insights pertaining to the topics of advanced digital skills in organisations. The following is a brief description of the guest speakers of the workshop.

Kieran McCorry, Microsoft

Kieran is Microsoft's National Technology Officer in Ireland and has worked in the technology industry for more than 30 years. He works in multiple sectors of the technology landscape, including analytics, the Internet of Things, AI, cyber security, and quantum computing, as well as others like innovation,

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digital transformation, or collaboration. He belongs to several industry boards and government forums, focused on technology skills development and strategic planning.

Kieran highlighted the following points during the roundtable:

- The pace of movement of technology development – every day brings a new challenge.
- The pace at which generative AI is developing and the challenges that brings for businesses.
- The risks posed by cyber-crime and the need for increased skills development in the area – currently a skills shortage of 20%
- The talent challenges in the industry and the need to seek alternative sources e.g., neuro-diverse candidates, broadening the recruitment in diverse communities.
- The importance of educating teachers and he described the Dreamspace initiative in Microsoft.
- He highlighted the need to promote STEM subjects in schools and encourage participation at third level, particularly of women.

Dr. Fiona Williams, Ericsson

Fiona Williams has over 30 years of experience and is the Research Director of Ericsson, based in Aachen, Germany. In her role, she drives innovation in communications networks and services and their use in Smart Energy Grids. She initiates and leads large-scale collaborative programmes and projects in the national and European context and builds up research, and innovation activities for Ericsson, bringing results through to business innovation in products and services and as spin-off companies, where appropriate.

Fiona highlighted the following points during the panel discussion:

- The importance of increasing female participation.
- The need to increase attractiveness of STEM subjects for girls in second level.
- The shift to hybrid working post-pandemic and the challenges that this presented for onboarding employees, particularly in ADS roles where benefits could be achieved by collaborating with peers.
- The change in work patterns by Gen Z and the focus on achieving a greater balance between work and life – an inference that productivity was decreasing.

Brendan Rowan BluSpecs Consultants

Brendan provided an overview of the LeADS project and an outline of the key highlights from data and trends emerging from WP1. His presentation included the background of the LeADS project and how the Digital Europe Programme aims to provide an investment of 7.5 billion euros between 2021 and 2027. He outlined how the overarching aim is to accelerate the economic recovery and shape the digital transformation of Europe's society and economy, bringing benefits to everyone, and in particular to SMEs.

The audience expressed particular interest in the data presented which included the following insights:

- Top skills demands 2020-2027 which included AI application development, Data Analysis, AI implementation, cloud solutions
- Skills with predicted lesser demands included Network security, GRC and forensics, endpoint solutions
- The role of AI and cloud in driving automation and skills
- The level of investment in skills forecasted
- The strategies for talent pipelines in Quantum, IoT, Security, Cloud BI, and AI.
- Challenges presented in talent acquisition, including the lack of relevant work experience, lack of relevant qualifications and the inability to meet salary expectations
- The particular challenges presented for SMEs

3. Challenges Identified by Participants

During the first roundtable dialogue, the participants were tasked to reflect on the challenges they are currently facing in terms of filling future talent demands in advanced digital skills within their respective industries. Following vigorous and energetic discussions, each table shared its top 3 ranking challenges with the room. The following sections provide an overview of those key challenges, and an overview of 'other' challenges is provided in Appendix 1.

3.1. Education Challenge

This challenge is defined as the barriers and blockers presented by the providers of education in supporting the creation of a flow of skills-ready talent. Education was a common theme in the group and there was a high level of consensus in relation to the challenges that exist within the Education topic. It presented itself in a number of different contexts outlined as follows:

1. There was general agreement that there is and will continue to be a critical shortage in supplying graduates with ADS. However, the group proposed that *the root of the problem was within the primary and secondary school systems.* The industry leaders believed that the quality of primary and secondary education was a concern and an impediment to filling demand.

2. It was suggested that a challenge is created by the perceived *lack of qualified maths teachers* and this was an additional impediment to ensuring that education provides an opportunity for students to develop an interest in areas, key to the future of a digitally skilled generation.
3. There were a number of concerns expressed about *the quality of STEM graduates emerging from universities.* It was suggested that graduates lack the necessary soft skills to navigate the corporate world. They are perceived as not work-ready and can be perceived as difficult to work alongside and to be part of teams, despite having all the qualifications for the job. The participants concurred that a key challenge in education is that ADS-related higher education courses *do not place sufficient emphasis on developing soft skills*, which are instrumental to the career progression of leaders.
4. There is often a stigma related to adults upskilling themselves using online learning providers. The reason being, that these programmes are not perceived to be as effective as programmes provided by universities. It was suggested that this *attitude towards lifelong learning programmes is creating a gap in the supply of professionals in ADS.*

3.2. The Leadership Challenge

This challenge is defined as the issues affecting the creation of leaders who understand and have the competence to lead in a digital world. The leadership challenge was presented in a number of different ways:

1. Firstly, at Board level, it was commented that there was a lack of digital knowledge. This was considered problematic in the context of the role of the Board to set strategic direction and approve strategic plans of the organisation and set the cultural tone top down. If gaps exist in their knowledge, it is considered likely that *the top-level team would not be challenged on the role of ADS* and organisation readiness. Equally, a culture that prioritises ADS may not permeate the organisation.

2. Not only is there a technical skills gap deficit but a *leadership digital skills deficit*. We need to develop leaders who understand the potential of emerging technologies and know how to position their organisations to obtain a competitive advantage by utilising emerging technologies. There is a challenge of ensuring that operational leaders (in some cases the Technology leaders) have sufficient competence in ADS to understand the demands and the risks. It was commented by one group that there is a possibility that operational executives have a fear of technology.

3. The leadership challenge was also presented in the context of HR leadership and the attendees discussed the perceived *gaps in HR leadership understanding of the threats for organisations of ADS gaps.*

3.3. Diversity and Inclusion Challenge

This challenge is defined as the lack of sufficient diversity in the development of ADS skills.

Diversity and inclusion were topics presented numerous times by the participants and broadly these can be categorised into: gender diversity and the lack of female representation; societal issues and the under-representation of those from less well-off areas of society: neurodiversity (predominantly).

1. Firstly, there is a *major problem in encouraging females to consider tech subjects in schools.* When in secondary or high school, young females tend to not consider STEM subjects as an option.

2. Moreover, there is a *lack of females in ADS in organisations throughout the industries*. This could be due to several reasons, but the most recurring suggestion from the attendees is the lack of female interest in those subjects from a young age. This is aligned with the education challenge and the need to encourage broader participation.

3. The discussion in the panel and the activity by Microsoft to sponsor programmes to encourage those from *neurodiverse backgrounds and disadvantaged areas* was seen as a challenge that needed to be addressed by other stakeholders, including industry and education.

3.4. Reskilling and Upskilling Challenge

This challenge is defined as the difficulty in building ADS skills in an existing workforce. These difficulties include both upskilling and reskilling employees. There was much discussion about the challenge of reskilling and upskilling.

1. There is currently an issue when it comes to reskilling employees mid-career. It is *difficult for one who already has one area of expertise to transfer to a different area.*

2. Another challenge of reskilling and upskilling also lies in the *amount of time required for employees to acquire new skills* and the challenge for organisations of finding the time to allow this development.

3. There need to be *new pathways in organisations to develop the necessary skills*. Currently, those pathways do not exist.

3.5. Workforce Planning Challenge

This challenge is defined as the difficulty for those involved in strategic workforce planning and predicting ADS in a world that is changing at pace. There was much discussion about the challenge workforce planning was discussed repeatedly throughout the workshop:

1. A key element in workforce planning is *current and future skills identification*. This was considered a challenge for organisations due to the rapid speed of change. As digital skills are evolving fast, it is difficult for companies to recruit talented people as these skills can become outdated and then further training or upskilling is required. This can make talent forecasting frustrating for recruiters.

2. The creation of new roles due to developments in generative AI (e.g. prompt engineer) illustrated the difficulty for those participating of the difficulties for talent acquisition when potentially new roles were being created that previously did not exist. Moreover, there is a *lack of clarity on the detailed skills required to carry out these new roles.*

3. Aligned to the previous point was *the pace of change* as this was a factor that many felt presented challenges for organisations in aligning and adapting organisation skills.

4. Solutions Identified by Participants

On completion of the challenges exercise, each roundtable took ownership of a challenge and focused on generating solutions to address the issues. These are outlined below.

4.1. Education Solutions

The industry leaders believed that the quality of primary and secondary education was a concern and an impediment to filling demand. A number of solutions were discussed for the education challenge:

1. To address the need for dynamic choices for people to educate or re-educate, it is important to offer **different styles of learning assessments and build confidence in learning**. Societal changes over the last 30 years, such as the idea that a level 8 degree is necessary to provide value in a technological environment, have created a disadvantage for those without these types of qualifications. To combat this, **more value needs to be placed on vocational work** and companies need to **create pathways for non-academic routes**.

2. **Hiring for skills rather than qualifications** and **accrediting micro-credentials** can lead to a shift away from payment based on experience, which can help with female pay equality. The potential of this type of hiring should be recognized, and apprenticeships should be scaled and **skills that have value should be recognized**. Teachers need to be informed about industry changes and STEM teacher internships can provide visibility into what is going on in the industry.

3. Another suggestion was to adopt a similar model to the US where **core subjects are carried from early education through most of university education**. Choosing specialised subjects at 14 years of age reduces the number of pathways to a tech career at a young age and re-enforces the issue of invisible subject labels.

4. **Career guidance in schools requires drastic improvement**, to direct young people into careers they are suited to. Immigration of skilled students is also important, and risks of international students need to be addressed to keep them here. Leadership needs to own the process, set targets, and incorporate younger influence at all levels. Career guidance can help students understand their skillset, and **the valuation of skills, rather than education and experience, should be emphasized** throughout.

5. For those not educated in highly technical disciplines, **reskilling can be done in-house** through crash courses or through **conversion courses** for those who want to upskill. Identifying skills and different levels and recognizing skills gained on the job through micro-credentials is essential to drive this.

6. **Dynamic pathways in education** can help students move from one specialization to another, and early education can help students understand their skillset. The role of the teacher is critically important and needs to be valued.

4.2. Leadership Solutions

The participants identified a number of solutions that could help develop the ADS leadership capability within their organisations and some of these solutions cross over to others, particularly education.

1. There is a real **gap in preparing leaders** who are going to lead. This requires exposure and opportunities to lead in an ADS context. Organisations need to create and develop opportunities that are aligned with lifelong learning offerings.

2. **To increase the competence and involvement of boards**, the concept of a '**digital audit**' was proposed. This would be part of the good governance practice and annually the Board could assess whether adequate discussion had taken place at Board level in relation to digital skills and also whether the requisite skills were present in the make-up of boards.

3. The concept of **leader mentorship** needs to be created and embedded in leadership learning offerings within organisations.

4. A solution was proposed that involves the creation of **shadow boards** (a group of non-executive employees, usually millennials and Gen Zers) where a focus should be placed on promoting young people with digital skills to boards.

5. Those sourcing leadership development through external providers for the development of generalist skills should ensure that **ADS is part of the baseline curriculums**

6. To increase ADS awareness, it should be a **recognised competence within leadership mapping** exercises, alongside other core competencies expected of leaders and people managers.

7. The perceived gap in HR leaders' knowledge of ADS was identified as a concern. There is a need for **professional bodies to provide learning that is focused on increasing ADS competence amongst HR professionals.** In addition, HR programmes provided through university bodies need to ensure that ADS is included in curricula.

4.3. Diversity and Inclusion Solution

1. The **early education** area is the most significant challenge area. It was noted that there are invisible labels associated with certain subjects that make it unattractive for female participation and that girls in second level are not actively encouraged to take science subjects. Other issues include the missing link between career guidance in second level and the reality

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of emerging jobs in technology. Therefore teachers need to be kept up to date with the emerging tech landscape.

2. Implementing **digital skills programmes** at an early age, similar to the Nordic countries' approach, implementing a more **systemic approach to Transition Year** (TY) in Secondary schools, and making TY mandatory with **multiple placements in different industries, including tech.** This will expose students to work experience at an early age and better inform career decisions before Leaving Certificate. It will also address the issue of students self-selecting subjects based on misconceptions of the field.

3. **Community building, mentorship, internships, role models and supportive environments can help build confidence and remove barriers** for women entering STEM. Several participants noted that these types of initiatives tend to energise students and help them realise and understand the pathways to a career in technology-related fields. These initiatives can imbue students with confidence, understand the environment, break down social barriers and 'widen the lens'.

4. **HR practice also needs to change** in order to address gender representation issues in the workplace. In many organisations, HR departments could strategically utilise remote working to attract talent.

5. Additionally, diversity issues can be addressed by **providing role models for minorities** who haven't had university-educated parents.

4.4. Reskilling and Upskilling Solution

A number of solutions were proposed by the groups and although some of these solutions may be more focused on basic digital skills these are recorded to illustrate the views of the participants and their perception of ADS.

1. The group suggested **identifying the basic digital skills and training people on those**. The rationale for this solution was that there is a need to elevate all levels and ensure the basic level was improved, this would have a knock on other levels of skills.

2. **Training mid-career professionals** with the required skills was seen as a relevant intervention and this could be aligned with providing employee incentives to embark on additional learning.

3. The point was made that companies also need to **rapidly skill** their employees given the increasing pace of change. Promoting '**crash courses**' either in-house or through third-party providers could help bring people up to a greater competence level

4. Mechanisms such as Udacity **and micro-credentials** can assist rapid skilling but more companies need to embrace these.

5. The creation of '**conversion courses'** could also play a role in **providing** generalists with an opportunity to move into digitally focused areas.

6. The concept of a **Global digital passport** was proposed as a way of recording and adding to the skills of employees and this passport would travel with them across roles and organisations.

7. Create more movement within the IT areas within businesses by **encouraging lateral moves** from hardware to software.

4.5. Workforce Planning Solution

1. Overall there was a sense that there need to be more **dynamic and agile career pathways** rather than a linear approach to progression. Organisations should move towards reconsidering their traditional models of talent development to reflect the dynamic nature of the external environment.

2. Some considered that there is a lack of alignment of resources for long-term critical skill development. Organisations **should develop a focus on re-purposing the skillset of existing employees and reskilling them**, rather than make new hires to compensate for the missing skills, which is more costly than the first option.

3. Companies should look to create **vocational routes** as sources of talent. These include **apprenticeships** that will create more talent pipelines from diverse backgrounds and provide those involved with a combination of hands-on experience.

4. The reliance on Universities was considered by one group who suggested that **workforce planning should incorporate a big push on hiring school-leavers**, and this would also impact the diversity agenda with students not having to pay college fees.

5. Recommendations

The following points are the recommendations from this workshop based on the discussions of the challenges and the solutions of the participants.

Target	Recommendation	Description
Higher education providers	**Teacher Education Curricula to include ADS content.**	Teacher education curricula in all third level institutions (providers of teacher training across primary and secondary levels) should include a learning stream related to ADS. This way, teachers can develop a competence and confidence in ADS and can encourage interest in students.
	Integrating industry into Education	Education must keep up with industry needs. More interaction between education and industry is needed. At third level, this needs to be supported by more Adjunct Professors that can bring industry into the classrooms. Universities should create strategic relations with employers in order to create enduring relationships.
	Microdentials and fast-paced learning	More emphasis is needed on micro-credentials as a route to acquiring knowledge. Universities and third-party providers can address this gap and industry are receptive to this as a route to increasing skilled people for employment.
Policy Makers	**Increased Education on STEM topics**	Primary and post-primary schools are key players in the development of ADS. There is a need for more focus on curriculum creation to ensure that young people are exposed to STEM skills earlier in the education cycle and in a way that encourages interest and ethical use of new channels of technology. Policy makers need to incorporate this dimension in their curriculum and one suggestion was to create STEM internships within companies for teachers to help create awareness.
	Examine the curricula and skills areas addressed in specific Career Guidance teaching qualifications.	Industry representatives perceived a gap in the knowledge of teaching staff who specialized in career guidance at post primary level. There is a need for career guidance qualifications for teachers to be integrated in a

		structured way with developments in ADS. Doing so will ensure that they are providing the necessary guidance to students. They need to have current knowledge on the new roles that are emerging in organisations and they need to understand the pace of change.
	Ongoing updating of education of school leaders and teachers in the primary and post primary school system	'In-service' courses are common methods for providing professional development for primary and second level teaching it is recommended that these on-going professional development opportunities include regular knowledge updates of digital and ADS topics. Those faculty providing in-service development should include industry leaders.
	Creation of a digital passport	Similar to the The International Computer **Driving Licence** (**ICDL**). It was suggested that a 'Digital passport' be created to provide a route to lifting the general digital skill level across Europe. This could be subsidised and like the ECDL offered to students at post primary level as an accredited qualification.
Vocational Education	**Vocational Education Training - increase in provision of this training as part of an apprenticeship model**	The role of apprenticeships was discussed as a credible alternative to traditional routes (i.e. Universities). The concept of real-time learning in-company, combined with a structured pathway was seen as a real alternative to traditional University education. Creating **more** VET options can increase the prestige of vocational education and create more diverse routes
Industry	**"Can't see it, can't be it" - creating visible role models.**	Engaging with schools and implementing mentoring, community building, internships and providing role models can help address some of the aforementioned issues identified in 'challenges'. Several participants noted that these types of initiatives tend to energise students and help them realise and understand the pathways to a career in technology-related fields. These initiatives can imbue students with confidence, understand the environment, break down social barriers and 'widen the lens'.
	Companies need to create more agile diverse pathways for talent development and acquisition	Industry participants were very concerned about the lack of diversity in the acquisition of ADS talent. In order to fill the necessary pipeline it was suggested that talent is sourced from (a) wider socio-economic groups for example creating scholarships or internships for those

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		from disadvantaged areas: (b) encouraging the recruitment of neuro diverse candidates (c) targeting school leavers and providing credible career development routes (d) within companies create 'crash courses' in digital skill development to enthuse employees to follow new career paths.
	Gender issues still need to be addressed and maintained as a high priority	The participants in this workshop were concerned that there still was a low participation from females in STEM and consequently in leadership roles within organisations. Therefore industry must continue to support initiatives to encourage female participation in STEM, through supporting targeted scholarships in third level, in-company mentoring, and providing upskilling within organisations for the female workforce.

Appendix 1 Other Challenges

Infrastructure challenges

From a localised perspective, concerns were expressed about certain factors hindering skilled talents' willingness to stay in or relocate to Ireland, Dublin to be more precise. The current housing crisis in Dublin has rendered it difficult for prospects to secure lodging despite the city's attractiveness in housing several multinationals as well as being the headquarter of the GAFAM in Europe.

The high cost of living in Dublin and the country's elevated income tax are also challenges that the attendees considered important to the need for talent in ADS in their organisations/institutions. As far as they are concerned, the disadvantages of living in Ireland might outweigh the advantages, thus creating an obstacle for companies to acquire qualified graduates. Although this point is specific to an Irish context these infrastructure challenges may be relevant to other similar economies within Europe.

Sector challenges

Particular challenges were identified for the public sector, where the participants perceived that ADS roles within the public sector may not be as attractive as the private sector due to salary disparity. Therefore causing talent challenges in this sector.

Challenges were also perceived to exist for the SME sector where participants perceived the ability to pay for the required skills to be a challenge. Those present commented that the SME sector was the engine of the economy and therefore this was a key concern. Some other points are summariesed below:

Agile Pathway

- More need to upskill to meet needs
- Identify basic ICT skills- this could be a start to culture change
- Reskilling mid-career

Social

- Provide acceptable opportunities for female students
- Diversity
- Social participation to motivate disadvantaged groups
- Work from home
- Media scaring people ⬚ layoffs from the tech industry

Pipeline

- Tailored recruitment vs skill-based recruitment
- Apprenticeship
- Lack of motivation
- Planning

- Recruiting less skilled staff and needing to upskill on the job (don't have the luxury of not hiring)

WordCloud produced from the participant discussion Workshop 2 May 4th