Partner Report Template

Partner Organization	Headway
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1. The Changing Labour Market

1.1 Drawing on recent developments and technological changes to the world of work, can you describe the impact (or potential impact) of these changes?

The Expert Group on Future Skills Needs in their 'Digital Transformation: Assessing the Impact of Digitalisation on Ireland's workforce' report (December 2018) describe digital transformation as a "key component to business success". They state that the adoption of digitalization/ automation is happening gradually in Ireland and this slow and steady progress is expected to continue. They note that Ireland is already a key location for digital technologies and is already benefitting greatly from the global roll out of digital transformation. Ireland Future Jobs Ireland Report (2019) proposes that Irelands capability in the following 'cutting edge' technological areas must be enhanced and exploited; Artificial Intelligence; Augmented and Virtual Reality; Data Analytics; the Internet of Things and blockchain and companies supported and assisted in co-innovating and developing solutions in areas such as MarineTech, Connected and Autonomous Vehicles, Advanced Manufacturing, AgriFood Tech and Smart Cities. It notes how the EU is developing coordinated actions across EU member states to ensure Europe becomes a global leader in Artificial Intelligence.

A paper on the topic of Automation and Occupations prepared by the Irish Government Economic and Evaluation Service (2018) reports that two out of every five jobs in Ireland are likely to be significantly affected by automation. The Expert Group on Future Skills Needs (2018) outlines that the relationship between the adoption of technology and its impact on labour is not straightforward. They project that the disruption from the adoption of digital technologies is unlikely to lead to a sudden fall in the demand for labour but will be a gradual process as enterprises invest in technology and adopt its use over many years. They propose that one in three jobs in Ireland are at high risk of being disrupted by the adoption of digital technologies, particularly in terms of changes to job roles and tasks performed by individuals, rather than job losses, with some geographical regions experiencing more impact than others.

It is estimated that the impact on Irish jobs will be relatively light between 2018 and 2023, with 46,000 jobs being lost to automation across all occupations by 2023. The occupations showing the largest overall growth in Ireland are forecast to be skilled trades (+50,100) and professional occupations (+40,100). The smallest growth will be seen in caring, leisure and other services (+21,200) and managers, directors and senior officials (+20,700), although both occupational

groups are estimated to experience consistent growth year-on-year. Irish GDP is anticipated to be up to 11.6% higher in 2030 as a result of the adoption of AI (PWC, Future of Work – Issues article). In terms of EU findings, a study that looked at the risk of automation for the 32 OECD countries (Nedelkoska & Quintini, 2018) found jobs in Anglo-Saxon, Nordic countries and the Netherlands to be generally less automatable than jobs in Eastern European countries for example, which was felt to reflect how tasks are organised within occupations across different areas.

Irish jobs will be significantly affected by automation, particularly in the areas of transportation and storage; agriculture, forestry and fishing; wholesale and retail and construction. Areas to be least affected by automation include education; human health and social work activities; and information and communication. Sectors that will be most at risk are those associated with repetitive manual tasks that can be replaced by automation, but not exclusively. Jobs at highest risk of displacement by digital technologies include many elementary, low skilled occupations, as well as sales and customer service occupations. People whose jobs involve manual data entry will also be under threat in sectors such as financial services, retail and pharmaceuticals. Occupations with a low level of risk of being automated tend to consist of a higher number of tasks that require social, cognitive and literacy skills. Automation risk in the EU is also proposed to be higher for low skilled workers in routine jobs with low demand for transversal and social skills where professional jobs and those involving interpersonal services provision are relatively protected (Pouliakas, 2018).

The Irish Government Economic and Evaluation Service (2018) found evidence of an inverse relationship between the degree of automation risk and level of educational attainment. Elementary-based roles are assumed to consist of repetitive, manual tasks which overall do not require higher levels of education. In the last Educational Attainment Thematic Report by the Central Statistics Office (CSO) (2018), adults with a third level qualification were more than twice as likely to be employed than those with no formal education/primary education. This shows how jobseekers disadvantaged in terms of education are more at risk of unemployment as a result of these technical advances and the number of jobs requiring only low-level qualification decreases. Investment in higher education will be an important part of the response to the impact of automation, particularly for disadvantaged job seekers.

The Expert Group on Future Skills Needs (2018) reports that there will be significant disruption to the job roles and tasks performed by individuals but note there is lack of statistical evidence of the impact on jobs. A study on the topic of Automation and Occupations prepared by the Irish Government Economic and Evaluation Service (2018) state there will be major implications for

workers and the type of skills that they will need to invest in to adapt as occupations are replaced by automation or tasks associated with the impacted occupations reconfigured. New roles are likely to be created, for example while some current call-centre roles may diminish, new customer service roles will be created in sectors like retail and financial services, requiring higher-level skills and, potentially, educational qualifications. Career changes and workforce transitions have been identified as a feature of the future where ongoing engagement of the workforce in education, reskilling and upskilling will be vital.

In summary, technical advancement is happening steadily in Ireland and keeping up with this is critical for the success of organisations. Co-ordinated initiatives are also in place within the EU to ensure this is managed effectively. Automation is anticipated to have a significant impact on the Irish labour market in terms of industries, occupations, job roles and tasks, with some identifying as being more at risk than others. Low skilled workers will be particularly affected due to the risk in occupations and role in which they are more likely to be employed. Further retraining and upskilling will be a vital means of offsetting the risk of automation for this cohort in particular.

1.2 Drawing on Country and EU research, can you describe what skills will be most needed in the future world of work?

Due to the move towards automation and AI Ireland needs to focus on developing workers skills toward those that are most in demand. These include advanced cognitive skills, problem solving, logic, social and emotional skills and soft or transversal skills such as communication skills, organisational skills, self-motivation as well as core competencies of numeracy, literacy and digital technologies and creative skills – skills that have been referred to as 'human' skills (Future of Jobs Report, 2018). The Expert Group on Future Skills Needs (2018) outlines that certain skills, particularly soft skills, are more likely to be relevant in the next five years than others, and a key priority for policymakers is to ensure that the workforce possess those skills. The importance of learners having the opportunity to develop and enhance these skills through their lives is also highlighted. Research carried out across the EU by to Pouliakas (2018) states that education systems should involve life-long learning with training programmes that focus on key competences and soft skills.

The Digitialisation Report (2018) highlights that the Government has taken steps to address the challenges that digitalisation and automation will present in the coming years. The need for all workers to have digital skills has been recognised and is being addressed. All of these measures will help to prepare the students and workers of today for employment in later years when the biggest impact on jobs is expected to be felt. Government initiatives are already underway in a number of areas including a greater emphasis on teaching soft skills in the education system, the promotion of life-long learning for all employees, and retraining and reskilling programmes helping to prepare the country for the challenges that increased digitalisation/automation will present. The Irish Government have also prioritised the promotion and development of high-level ICT skills to ensure that the right technical skills are available to enable the adoption of digital technologies. Steps are being taken in Ireland by Government agencies and training providers to address the challenges and skills gap, including the following programmes and initiatives:

- Springboard+ which allows people to upskill or reskill in areas of identified skills need. Courses cover a wide range of subjects. Springboard ++ will continue to provide training in emerging new technologies.
- Supporting Working Lives and Enterprise Growth in Ireland was published by SOLAS in June 2018, setting out a new policy framework for employee development opportunities in Ireland and goals and targets for the period 2018- 2021.
- eCollege which delivers online and distance training courses across subjects targeted at jobseekers, employees and employers.

- Incentives for enterprises to invest in retraining and reskilling are strong across Ireland e.g. Apprenticeships and Traineeships; Springboard+, Skillnet Ireland and SOLAS' Skills to Advance campaign.
- The Department of Education and Skills has established a network of nine Regional Skills Fora and appointed nine Regional Skills Fora Managers to help foster stronger links between employers and the education and training sector. Each forum provides robust labour market information to inform programme development while encouraging greater collaboration between enterprise and education and training providers to identify and respond to existing and future regional skills needs.
- National Skills Council provides advice on prioritisation of identified skills needs and how to secure delivery of these as well as playing a key role in promoting and reporting on the delivery of responses by education and training providers to these priorities. An example is the National Skills Strategy 2025, which plans to put greater emphasis on soft skills on all stages of education and training and the National Skills Bulletins.
- Skills for Growth Initiative Launched in 2017 with the aim of increasing the quality and quantity of data available on skills needs in individual enterprises, to allow for enhanced engagement between enterprise, education and training providers and other relevant members of Regional Skills Fora.
- Technology Skills 2020 is Ireland Third ICT Skills Action Plan and a collaborative effort by Government, the education and training system and industry to meet Irelands high level ICT skills needs.
- Budget 2019 provided funding for 5000 new and flexible lifelong learning opportunities, many of which are free of charge.
- Skills to Advance and Upskilling Pathways provide new opportunities for adults including those with lower skill levels and the EXPLORE Programme to focus on people aged over 35 who have not previously engaged with Lifelong Learning.
- FIT is an industry-led initiative that works in close collaboration with government departments and national education and training agencies, local development organisations and a host of community based organisations with the aim of creating a fast track to marketable technical skills for those at risk of unemployment long term.

Low skilled workers are being recommended to develop their soft skills to adapt to the future labour market. There appear to be no Government training initiatives focusing on the developing the soft skills of disabled people specifically in light of the automation of work roles. The Comprehensive Employment Strategy (2015-2024) aims to identify how people with disabilities can be supported into employment, including building skills, but no specific reference is made to address the gap in soft skills in particular in light of the changing world of work. The Governments

key activation strategy, Pathways to Work strategy (2020-2024) has a focus on increasing labour market participation with particular attention on increasing participation levels among underrepresented groups and those distanced from the labour market e.g. long term unemployed people, people with disabilities and other disadvantaged backgrounds.

In summary, the skills most needed in the future world of work will be skills known as soft or transversal skills and cognitive skills, as well as some technology and business skills. A variety of Government and local initiatives for jobseekers have been put in place to address this, however a fewer amount of these appear to be targeted specifically towards those disadvantaged in the labour market, particularly those unemployed due to disability.

2. Theoretical Approach

2.1 Identify and explore relevant theories and research evidence which can be used to inform project and tool development

Definitions for formal and non-formal learning are provided by Cedefop (2008); formal learning occurs in an organised and structured environment (such as in an education or training institution or on the job) and is explicitly designated as learning (in terms of objectives, time or resources). Formal learning is intentional from the learner's point of view and typically leads to certification. Non-formal learning is embedded in planned activities not explicitly designated as learning (in terms of learning objectives, learning time or learning support), but which contain an important learning element. Non-formal learning is intentional from the learner's point of view and typically does not lead to certification.

Characteristics of formal learning compiled by Lange & Costley (2015) based on a variety of sources are as follows; highly structured, institutionally sponsored, take place in educational environments designed to support learning, has learning objectives to be met, specific pedagogies and materials to facilitate the education process are generally provided, students tend to be extrinsically motivated by advancing to a higher level, obtaining certification or promising career opportunities.

Lange & Costley (2015) describe non-formal learning a "grey area" between informal and formal learning. Characteristics of non-formal include; contains some of the aspects of formal learning but take place outside of an educational institution setting e.g. short, term voluntary programs; may also contain objectives and assessment; courses are typically not compulsory, offered by a wide variety of organisations including government services, training services, enterprises, voluntary and non-profit organisations; can supplement formal learning.

The European Commission sets out a goal of 15 percent of all adults between 25 and 64 participating in at least one formal and/or non-formal learning activity on a four weeks' basis and participation is being monitored based on the Labour Force Survey (European Commission, 2010). Boeren (2017) considers the factors that influence adults to participate in lifelong learning noting the importance of individual (social and behavioural), learning provider (learning institutions and workplaces) and country (macro level factors such as education and training and labour market and economy) characteristics and has developed a model outlining these.

Methodology for assessment of learning achievements is outlined by Ausra Fokiene in a Leonardo di Vinci programme project funded with support of the European Commission. Development of assessment methodology to assess learning, including non-formal learning achievements, involves setting the assessment criteria or attributes, on the basis of which the evaluation decision

is made. Competence (an attribute of the person) can be assessed by singling out particular competencies (requirements for knowledge, skills and attitudes, necessary for implementing a certain professional activity); and selecting assessment methods (suitable for assessing the knowledge, skills and attitudes being components of a certain competency).

A set of European guidelines for validating learning types were published jointly by the European Commission and Cedefop in 2009. Cedefop outlines that countries in Europe need to establish systems that allow individuals to identify, document, assess and certify/ validate all forms of learning to use this learning for advancing their career and for further education and training. There are European guidelines and an inventory for validating of types of learning (Cedefop, 2015). They report that validation arrangements can help combat unemployment by improving skill matching and social cohesion and offer crucial support to those unemployed by enabling citizens to communication the value of their skills to potential employers or when returning to formal education or to earn a new qualification. They report that it can make skills acquired through voluntary work or during leisure visible to employers. They outline four phases of validation; identification, documentation, assessment and certification.

Wide and varied practises that fall under the definition of skills audits as outlined in the 2012 Council Recommendation on validation are in place in Ireland (European Inventory on Validation of Non-formal and Informal Learning, County report: Ireland, 2018). Within the further education and training sector diagnostic tests are frequently used for specific programmes to identify skills gaps and inform next steps in terms of further education, training and/or employment.

A variety of methods and tools can be used to test formal learning. Methods used in validation include declarative methods, interview, observation, portfolio method, presentation, simulation and evidence extracted from work, tests and examinations, other such as e-learning methods. Some of those currently being promoted in Europe by the Council of EU (2012) to facilitate the documentation of learning outcome are “Union transparency tools“ such as the Europass framework and Youthpass (Council of EU, 2012, p. 3, point 3i);

- The Europass framework consists of easy to use tools to help people identify and communicate their skills and qualifications in all EU languages. These include an online tool for creating CVs and skills profiles and free self-assessment tools for skill evaluation.
- The My Experience RPL (Recognised Prior Learning) Assessment Toolkit found at www.myexperience.ie includes an RPL online portfolio assessment built on Moodle and an information website for RPL candidates.
- The National Adult Literacy Agency (NALA) with the assistance of the European Social Fund have developed a distance learning tool to provide free online learning and facilitate literacy development. Writeon.ie is an interactive web-based learning resource enabling individuals to improve their basic literacy, numeracy, IT and interpersonal skills online.

Many of the FYC client group, disdvantaged by socio-economic background or disability may have challenges in these areas.

- The e-Pathways project aims to support personalised and professional training pathways for VET teachers. ICT based CPD tools and materials mainly in the format of e-Portfolios are used to enable teachers to document their formal and non-formal skills.
- The Limerick Clare ETB Edge project has included the development of an e-portfolio and open badge system to capture and recognise informal and non-formal learning. The e-portfolio was designed through Moodle as a guidance and employability tool and it supports learners in recognising workplace skills such as timekeeping, interpersonal skills, teamwork and leadership.
- Retail Ireland Skillsnet (RIS) offers RPL to employees in the Irish retail sector in areas including customer service, communications and effective working relationships,
- The Skills for Work Programme is a national programme aimed at providing training opportunities to help employees deal with the basic skills demands of the workplace. This programme is being aligned directly with opportunities for RPL within some ETBs, including the use of Europass and portfolio tools to document learning outcomes achieved.
- The Human Capital Initiative (HCI) aims to increase capacity in higher education in skills-focused programmes designed to meet priority skills needs. These needs are identified though the detailed and comprehensive framework now in place under the National Skills Council, including publications from the Skills and Labour Market Research Unit (SLMRU), the work of the Regional Skills Fora, the NTF Advisory Group, and the Expert Group on Future Skills Needs, and direct involvement of employers.

RPL opportunities are increasingly reaching the low-qualified, low-skilled jobseekers, unemployed people and those at risk of unemployment however Goggin et al. (2017) report that the diversity of the learners and learning within the FET sector in Ireland provides both context and challenge for RPL delivery. Research commissioned by SOLAS into barriers to participation in further education and training (Mooney and O'Rourke, 2017) highlights that the further education and training sector has undergone substantial change in recent years and serious challenges are experienced by learners from vulnerable groups seeking to engage with learning, such as people under 25, long-term unemployed people, people with disabilities, and migrants. RPL is a huge challenge for older prospective learners, long term unemployed people, early school leavers and migrants. It notes that the process of RPL can feel overwhelming and time consuming for certain groups of learners however good practice initiatives exist such as in the case of the Ballymun Job Centre's, Inform Project (2006-2008).

In summary, this section provided definitions of formal and non-formal learning and outlined the characteristics of both. The importance of participation in both is emphasised by the European Commission. Factors influencing individual participation were outlined. Validation of learning is an important part of the process and a set of European guidelines and an inventory for validating learning types has been published. A variety of methods and tools to assess learning are available, some examples were provided, including reference to the original INFORM project as an example of good practise for disadvantaged learners.

3. Identifying and Measuring Soft skills for the Future Labour Market

3.1 Review of theories which underpin INFORM and identifying and measuring soft skills

The theories underpinning INFORM as outlined in INFORM documentation are reviewed below and relevant and up to date research in these areas outlined:

Emotional intelligence (EI): A review of the relevant literature reflects emotional intelligence continues to be a relevant and widely cited concept in relation to organisational training and behaviour. Carson, Carson & Birkenmeier (2016) describe it as a concept which has now "come of age" (p. 33) and refer to research that highlights its function in helping organisations reduce turnover, identify transformational organisational leaders, facilitate executive coaching, create more efficient work teams, improve organisational culture , stimulate creativity and enhance employee acceptance of radical change in a variety of different domains and industries. Serrat (2017) outlines the continued importance of emotional intelligence in workplace hiring and promotion objectives due to increased weight being placed on the ability of staff to interact and communicate with each other than the ability to just do the job required. A meta-analysis of emotional intelligence and work attitudes found that it is significantly related to employee job satisfaction (Miao, Humphrey & Qian, 2017). Some updates to the ability model of emotional intelligence have been put forward (Mayer, Caruso & Salovey, 2016). Olson & Matan (2015)have found a positive correlation between emotional intelligence and resilience.

Hardiness: Kobasa's (1979) concept of hardiness continues to be referred to and utilised in up to date academic literature. It was developed further by Maddi (2006) who proposed it as an addition to positive psychology and has referred to as a pathway to resilience under stress. A distinction is made between hardiness, defined as a personal strength enabling individuals to rise to challenging events and resilience, a concept which has gained traction in recent years, being more related to the ability to bounce back after challenging events e.g. Luthans (2002a). Mazzetti, Vignoli, Petruzziello & Palareti (2019) outline how hardiness is recognised as a resilience resource. The concept of grit in positive psychology has been proposed as an alternative to hardiness (Duckworth & Quinn, 2009), however Matthews, Panganiban, Wells, Wohleber & Reiner-man Jones (2019) outline how definitions of grit focus more on long term persistence and maintenance of motivation during adversity. Maddi et al (2012) found hardiness to be a better predictor of (cadet) job retention and performance than grit. Hardiness has been found to positively related to factors such as occupational commitment, advancement opportunity, self-development opportunity (Eroz & Onat, 2018)

Experiential learning theory: This theory continues to be widely referred to in research on education and applied in learning, education and development in a variety of fields and industries. Jordi (2011) outlines how the embodiment of our experience provides us with the tacit knowledge that allows us to know who we are and what we are doing without much thought. Some critics have identified issues with this model and have proposed further developments (Bergsteiner, Avery & Neumann (2010); Matsuo (2015) however these are to be further tested by research, so the current model remains.

Tacit knowledge: A review of the literature shows a strong continued presence of tacit knowledge theory. Kenner & Weinerman (2011) outline how understanding tacit and informal theory is useful for educators working with adult learners to identify how they learn.

Competency: The ongoing importance of the development of competencies by job seekers is highlighted by Singh Chouhan & Srivastava (2014) who outline how organisations rely on competent employees as a primary resource and that the attainment of competency has become a central component of individual and organisational strategies. The European Commission (2018) outlines some updates in relation to its competencies for lifelong learning, including an updated description of the eight competences.

Social Learning Theory: Bandura theory of social learning continues to be widely referenced and used in the literature. A core aspect of this is self-efficacy or a person's belief and judgements of their capability to accomplish a specific task or attain a designated level of performance (Bandura, 1977). Zenger et al (2013) found the people with low levels of self-efficacy experienced about twice the length of unemployment than those with medium or high levels. Higher self-efficacy has also been found to relate to higher job search efficacy resulting in shorter periods of unemployment, more job interviews and offers and higher job search intensity (Zenger et al, 2013). Hackett & Betz (1981) have expanded on Bandura's theory to develop a theory of career self-efficacy, which involves applying the concept of self-efficacy to career-related behaviours.

All of the above theories are considered to be still relevant due to they continue to be widely researched and referred to in academic literature with little challenge or replacement. There is some scope for updating or adding to the theories as outlined where appropriate above.

Relevant and useful soft skills frameworks that are applicable to the target group include the following:

- Youthreach soft skills framework (National Educational Psychological Service & Co Meath VEC – Youthreach Service) consists of a matrix of three competencies; confidence through awareness and acceptance of the self, responsibility through an understanding of

others and power through an understanding of the world and three skills; life, self-regulation and social skills. This would be useful and applicable to the FYC project target group due to the focus on areas within the persons psychological make up that can be limited due to the lack of education, experience and adverse life experience, likely to have been experienced by this client group.

- UNESCO Competency Framework provides a framework outlining the skills and competencies valued by Human Resources within the organisation. As it refers to employees within the organisation it is not fully applicable to the FYC client group, however does provide insights into the types of knowledge, skills and abilities that are considered valuable within organisations, as well as profiles of jobs and the essential competencies for the position.
- Lifelong Soft Skills Framework: Creating a Workforce That Works (2012) is an American document designed to emphasise the importance of soft skills in organisations. It outlines 18 basic but key skills for workplace success which may prove a good reference point for the FYC client group. It may also be a useful guide in terms of best practise in soft skill development initiatives, as one of the main objectives of the project.
- EU Key Competencies for Lifelong Learning Report (2018) provides details of competences required and provides a useful general European context on the topic.
- Key Competencies in Vocational Education & Training Ireland - Ireland (CEDEFOP & REFERNET thematic perspectives series) (Burke & Condon, 2016) outlines key competences in FET in Ireland and their relationship to the Common Awards System linked to the National Framework of Qualifications. This is relevant to our client group who may be considering further education and training as part of their career plan.
- UMJ Understanding My Journey, Interpreting Soft Skills report provides definitions and examples of soft skills, including those identified as important by stakeholders including educators, training providers, state agencies and employers across Europe. Case studies of best practise skills training programmes are also provided.
- Building a Pan-Canadian Soft Skills Frameworks provides details of the approach being taken beyond the EU, which may provide further insights.
- OECD Competency Framework (2014) outlines a number of core competencies and behavioural indicators designed to show the requirements for successful performance. Job roles associated with each of the competencies are also outlined which may prove helpful in providing feedback to job seekers on areas of work they are suited for.

The Erasmus + funded ICARO project aims to design a customised training path adapted to the needs of each participant in order to get their (re)integration in labour market, including long-term unemployed adult learners, low-skilled and people facing difficulties to access to labour market in areas such as cognitive and interpersonal skills. A variety of tools in different European countries used to measure and/or recognise soft skills include the following:

- Tab control for soft skills
- eLene4work http://elene4work.eu/project-outputs/self-evaluation-tool/
- DiSoCi http://disoci.eu/assesment-tool
- Job Yes non-formal online training http://job-yes.eu/
- Digital Competences: Self Assessment http://europass.cedefop.europa.eu/resources/digital-competences.
- Profile Pass http://www.profilpass.de/
- Checklist Soft Skills https://media.newjobs.com/dege/redaktion/pdf/checkliste_sof

The Guide to Workforce Skills Assessment Instruments prepared by the American Labor Markets and Social Security Division (2016) outlines a number of tools and methods to identify, measure and/or recognise soft and cognitive or worker orientated skills used in a variety of international projects. The following list includes these as well as other commonly used cognitive assessments, some of which are used in the assessment of Acquired Brain Injury in particular:

- IPIP- International Personality Item Pool
- NIH Toolbox
- Ravens Matrices
- CPS Social and Personal Competencies Scale
- Weschler Adult Intelligence Scale (WAIS)
- Weschler Memory Scale (WMS-V)
- Delis-Kaplan Executive Function System (D-KEFS)
- Test of Everyday Attention (TEA)
- Speed and Capacity of Language Processing Test (SCOLP)
- Visual Object and Space Perception Battery (VOSP)
- Behavioural Assessment of the Dysexecutive Syndrome (BADS)
- Rey Complex Figure Test and Recognition Trial (RCFT)
- Hayling and Brixon Tests
- WebNeuro
- Mercer/Mettl's cognitive ability testing tool

In summary the theories underpinning the INFORM tool are still relevant as they continue to be widely used and referenced. Some updating is suggested to the competency theory due to updating of the core competencies by the European Commission (2018) and inclusion of the concept of career self-efficacy, a development to social learning theory. A number of useful relevant soft skills frameworks applicable to the target group were identified and outlined, as well as existing tools and methods to identify, measure and recognise soft skills and cognitive skills (worker orientated skills) both nationally and in an EU context.

4. Summary of Desk Research

Digital transformation is a key aspect of organisational success and is happening in Ireland at a steady rate. Just under half of all jobs in Ireland are anticipated to be affected resulting in changes in jobs roles and tasks performed by individuals. Some industries are likely to grow as a result but others, particularly those including jobs involving repetitive manual tasks such as elementary, low skill occupations or data entry and customer service occupations. There will be major implications for workers and the types of skills they will need to invest in to adapt as occupations are replaced by or adapted due to automation. Investment in higher education is thought to be an important part of the response to protect against the impact of automation, particularly for disadvantaged job seekers. Ongoing engagement of the workforce in education, reskilling and upskilling will be of vital importance.

The skills that will be most demand for workers include soft or transversal skills, advanced cognitive skills and technical skills. A key priority for policy makers is to ensure that the workforce possess those skills. Opportunities for individuals to develop and enhance relevant skills and competences throughout their lives should be provided. The Irish Government has taken steps to address the challenges that digitalization and automation will present, including placing a greater emphasis on these soft skills in the education system, increasing the promotion of life-long learning and developing new retraining and reskilling programmes. High level ICT skill promotion and development is also being prioritised. Low skilled workers are being recommended in particular to develop their soft skills to adapt to the future labour market.

More recent definitions of formal and non-formal learning remain the same, further details on the characteristics of each are outlined previously. Factors influencing adults to participate in life-long learning have been identified and are discussed. Methodology for assessment of learning achievements has been determined and a European inventory and guidelines for validating learning types published. Methods used in validation to test formal learning are outlined, including the Europass framework, consisting of easy to use tools to help people to identify and communication their skills and qualifications in all EU languages. Research highlights the challenge of participation by people from vulnerable groups seeking to engage in learning, such as those who are long term unemployed or disabled. The Ballymun Job Centres, INFORM Project (2006-2008) is considered to be an example of a good practice initiative in this area.

The theories underpinning INFORM continue to be relevant. Inclusion of career self-efficacy, a development to social learning theory and the updated competencies outlined by the European Commission (2018) are recommended. A number of relevant and useful soft skills frameworks

are available, many of which are applicable to the target group, as well as methods and tools for measuring cognitive and soft skills used both nationally within Ireland and across the EU. These can be investigated more closely to establish whether the full value they can add to the current INFORM tool.

5. Qualitative inquiry in the partner countries

5.1 Please summarise how you implemented the interviews and focus groups and give us feedback of the people involved.

A focus group was chosen to collect data from the job seekers, survivors of Acquired Brain Injury attending the Headway Dublin Vocational Rehabilitation Service. A focus group was selected as an appropriate method for data collection to encourage or inspire a greater variety of answers as memory and idea generation can be challenging after brain injury. In order to choose participants for the focus group the researcher contacted all job seekers currently engaging in the Headway Dublin Vocational Rehabilitation Service (n=11) with the language ability to participate in a focus group with an email outlining the details of the project and the topic of the focus group and an invitation to take part. 9 clients participated on the day, 7 males and 2 females with ages ranging from 25 to 63 and a mean age of 38 years.

The focus group took place in a training room in the Headway Dublin Head Office, a room many of the group were already familiar with, with the aim of providing a space in which they felt they could talk freely and actively contribute. On the day video and audio recordings of the session were made (with consent) to ensure that all data was captured, as it was not possible to have a scribe allocated to take notes. All participants were welcomed to the group and the researcher reintroduced herself and the project (the researcher was already familiar to all participants from working with them directly in the Vocational Rehabilitation Service). Participants completed and signed their details on the focus group sign in sheet. An information leaflet providing details of the project and emphasising important points in relation to their engagement in the project e.g. what to do in the event of experiencing distress as a result of taking part and a reminder that their engagement with the Vocational Service would not be impacted by their decision to participate in or withdraw from the study at any time, was provided. The confidentiality of the data and the ultimate use of the results was reiterated. Participants then completed an adapted version of the original consent forms with sections relating to further contact by email and GDPR removed as further details on storage of data were provided in the information sheet). All participants received a copy of this form co-signed by the researcher. Ground rules were agreed, and an initial ice breaker question was asked of everyone in the group with the goal of increasing relaxation levels and comfort and openness in the group to participate. The researcher made notes of client contributions to the discussion on a flip chart as it progressed as a memory aid for the group and to help structure the discussion and keep it on track. Definitions of non-formal and informal learning were provided. The focus group was one and a half hours in duration. One participant had to leave the group before the end due to another appointment. The researcher added in an

open question at the end of the session, “Is there anything else anyone would like to add that we haven’t already discussed” to provide them with the opportunity to add extra detail that they may have not had the opportunity to. The group was then closed with a check in or how everyone was feeling after participating, a reiteration of confidentiality and the purpose for which the data will be used as well as relevant contact details for follow up if required. Following the focus group the recordings were transcribed into text for analysis.

Due to logistical constraints questionnaires were distributed to the guidance practitioners and employers by email. One employer and all guidance practitioners completed and returned their answers by email, the other chose to provide their answers by interview conducted by telephone

As the researcher is the sole ‘guidance practitioner’ or staff member working in the Dublin Vocational Service participants had to be recruited from Headways other regional offices (Cork and Limerick). The researcher emailed the managers of Headways Vocational Services in the regional offices providing an outline of the research project, a questionnaire comprising the questions to be answered and consent forms regarding their participation. The managers then disseminated the information to their teams. The practitioners were provided with a week-long time frame in which to complete and return the questionnaires, which was then extended to a week and a half on request. A total of 9 guidance practitioners (i.e. all staff working in the area of Vocational Rehabilitation in the Cork & Limerick offices) responded. One advised that she only had the opportunity to complete half of the required questions due to time constraints. One staff member was male, the other eight female.

The researcher approached two employers known to her, one male and one female, contacting them by email to invite them to participate in the study. Both work in recruitment, one in a global investment company, the other in an international money transfer business. Details of the research were attached to the email. One of the employers had previously engaged with Headways Vocational Service as a client adviser in the Jobs Club training programme. Both completed consent forms prior to their participation. One employer chose to answer their questions in writing by return email, the other engaged in a phone interview using the same questions, which took approximately half an hour. Results of the telephone interview were transcribed and analysed.

In summary, mixed methods of interview, questionnaire and a focus group were used to gather qualitative data from three different groups of participants. A focus group was used to collect data from clients, survivors of Acquired Brain Injury linking in with the Dublin Vocational Service,

questionnaires were completed by guidance practitioners and an employer and a telephone interview was conducted with another employer. Data was then analysed.

6. The Changing World of Work, Stakeholder Experiences

6.1 Please describe your stakeholder experiences of automation in the workplace. Include Practitioner, Employer and Service User Feedback (Capturing any useful text/literature/initiatives)

Employer 1 Feedback:

The first employer, a Head of People in an international money transfer business had a very accurate detailed understanding of automation in the workplace describing it as "any kind of task or process that has typically involved some human interaction that is now delivered, or part delivered through an automated process using technology". Her perspective of the intention of automation included to increase speed and accuracy of tasks, to mitigate the risk of human error, to drive efficiencies, to reduce labour costs, to allow for 24/7 support, to allow for an overall better service to the end user or customer, to increase capacity/ volume/ productivity; to drive employee satisfaction. Changes in the workplace this employer is aware of include increased efficiencies in their Payments Operations and Compliance teams to allow speed and accuracy of tasks such as auto-batching of bank files and electronic verification of documents and automate of aspects of the organisation that had previously been 'out of hours'. They have also benefitted from using automated testing practices to allow for a much higher volume of tests to be carried out before a new feature to a product is released. The positive impact of this in reducing staff workloads and allowing staff to focus on more value-adding tasks and those more challenging to them professionally was noted by her. She also noted benefits to the service provided by customers through their introduction of a Live Chat service, including a Chat Bot, allowing customers to interact with them more easily and get quicker support. This employer also refers to the benefits of technology in facilitating them to provide a service that is fast, accurate and safe. The appeal of this safety and security to customers in choosing service providers is captured in the following quote, "More and more in the FinTech space customers are choosing providers that can offer a quick service that is safe and secure. This is driving a lot of decisions for us as we partner with external services and look at our internal processes that provide speed and security through technology".

When asked what skills job seekers will need for gaining employment in a future world of work, this employer felt that technical or hard skills are becoming more desirable (in their industry at least) including computer programming, data analysis/ predictive

modelling, project/ programme/ product management, people management and fluency in more than one language (both written and verbal). She believes that soft skills are absolutely valued in the workplace saying “it has never been more imperative to have developed soft skills such as influencing, negotiating, change management, coaching, people management, problem solving, decision making, project management, resilience but in addition to this to have high levels of emotional intelligence and strong communication skills, which may not have been considered as important as the more tangible competencies”. She described todays workplace as facing the following challenges; growth at a faster pace, a very demanding global customer base, advances in technology, cultural changes, diversity and inclusion challenges, higher expectations among managers and colleagues, and a changing workforce. She described soft skills as also helping to combat the negative effects that may come from having to adapt to the changing environment itself. Soft skills in addition to hard skills are essential for an employee to “flourish” in a role in her opinion. She noted that the organisation that she is employed in values people who actively seek to develop soft skills on top of the basic requirements for their role, stating “we like to see people who are solutions-driven apply problem solving skills to a number of situations they face in the workplace, particularly in an industry that is changing so rapidly”. Assessment of soft skills is used in the organisation she is employed in for senior roles or any role that has either decision making authority or people management. Their recruitment processes are designed to seek out evidence of the relevant soft skills for that role and they use behavioural or situational questions in their interview assessment to gain evidence that the candidate has the necessary skill or potential to further develop a required skill. They use written tasks or challenges in the initial stage of their recruitment process to focus on those soft skills alone.

Employer 2 Feedback:

This employer felt that at least an element of every role is going to be impacted by automation. They already use some automated tools in the “Talent Acquisition and Recruitment” area of their business that screens applicant’s CV’s and ranks candidates on their suitability for roles based on set criteria. He noted that while this is a task taken from the Recruiters position it allows them to do more “value add” pieces of work, captured in the following quote “In our own business we manage a lot of funds, a lot of what’s involved in that is quite manual and automation and artificial intelligence are being kind of viewed as a priority for the business and have been over the last three or four years, in terms of taking some of the more repetitive tasks away from people and making sure they can do a little bit more value add with their roles. It’s not really been replacing people, it’s just been replacing elements

of peoples roles and letting them do others, that's been what's been happening to date from what I've seen, where I am working". He stated that they are "constantly" looking at additional ways to bring automation into the business but noted that there are advantages and disadvantages to it. He stated that in some areas of the business you need a "human eye" to look into things but notes that automation can remove the "unconscious bias" that may be present in humans and not beneficial for people. He noted that employers are increasingly aware of the importance of having a "diverse talent pool" in terms of gender, race, nationality, social demographics, social mobility, neurodiversity and are trying to broaden out the type of people or "talent base" they have working in their organisation and avoid business issues being perpetuated by having people with the same views. He noted that this is a big change happening at the moment. He feels that automation could be very helpful for marginalised job seekers due to the removal of the human element or biases of the hiring manager in the recruitment process. He goes on to say however that there is theory that AI can be inherently biased by the people that programme it, highlighting another important consideration to be factored in in this move towards automation. He spoke about how automation is "gathering more and more momentum".

When asked what skills that he feels will be needed by job seekers to gain employment in the future world of work he stated the following "something there's been a lot of talk about this year particularly, the rate of change at the moment is such that they reckon positions will only last between 3 to 5 years and then they'll change quite a bit, so having a lot of hard technical skills, obviously it's still required but in certain areas will be useful and you're more going to be hiring for flexibility and adaptability and problem solving, very much human skills being very important as opposed to maybe some traditional competencies that companies would have looked at" (e.g. business acumen). He also referred to the importance of leadership skills but stated that interview processes are not really set up to capture and reward these skills at the moment so companies are looking at how they can interview and attract people with these skills more accurately. He refers to the impact of the changing landscape both within and outside of organisations "Roles are just changing quite a lot at the moment, the way a position works changes at a very fast speed with differences in technology and even just kind of the wider environment changing very quickly externally means you have to fit it to that as well" and the importance being placed on soft skills "there's very much more value being attributed to softer skills now and I think seems to be a move to even looking at not calling them that anymore as it seems to, traditionally has had some connotations they're not as important". He feels that automation will never lead to the full replacement of humans and that both will complement each other "Even just looking at the human skills that people have, eventually a lot of the technical skills might well be covered off by automation and AI will be able to do a lot of those things but very unlikely that, no matter how

advanced that gets human skills will still be required to blend in with that, and it's very hard to programme those so they're more important".

He feels that employers very much value soft skills in the workplace and are at the start of a process to prioritise them more, elaborating further in the following quote, "It's still a CV that's stacked with technical skills is still going to be really appealing and is still going to do pretty well in a lot of applications but it's just starting to shift towards recognising that there's always going to be a place for people with strong technical specialism but increasingly soft skills are going to be more and more important…again as automation and machine learning start to develop, that having people to possess those really kind of flexible skills sets will be really important, the ability to apply them in different ways and things like leadership and problem solving, a little bit more intangible, becoming a lot more valuable". Other soft skills in addition to those mentioned above that he feels employers would value most include the ability to communicate across departments and influence people, the ability to collaborate and build a network, being very flexible in the approach taken to work, being able to deal with shifting priorities.

When asked if soft skills are identified in their interview process he stated that in their Early Careers area of recruitment they have made a move towards a strengths based assessment where candidates engage in online screening based on theoretical workplace scenarios with a variety of multiple choice responses, resulting in a profile of the type of employee or person they are in the workplace, that they then match to key points they are looking for depending on the profile required for a particular business area. He noted that "Until the results are actually there to review there's no human involvement from a recruiter or anything like that, all the interaction is online, whether someone does it on their phone or on a desktop, or whatever". He reported a different process being used for more technical roles, of which there are thousands in their organisation. He believes that they will be looking at and identifying more traits and soft skills going forward and said that they currently have no official measurements for them, other than in the Early Careers area, and their plan is to be spread this across the business.

Service User Feedback:

When Service Users or clients attending the Vocational Service that participated in the focus group were asked what changes if any they have noticed in terms of automation in the workplace one participant said he has noticed automation being more apparent in the area of retail in self-service checkouts. He felt that this cuts down the amount of staff being hired. He also noted increased use of automation in airports (of note these were also examples of automation provided by the researcher when defining automation as part of the question). He stated, "technology is fastly moving, we have to try to keep up with

it….for some people it moves too quick". Another participant agreed with him saying "it's fast, it's nearly too fast". Most participants answered that they were familiar with automation in the workplace and that this was not a new topic for them. One client expressed difficulty he had experienced when dealing with a HR Department due to automation, "You'd eventually get to someone in the HR Department, but it would take about two weeks of going through the system ticking boxes. They cut the Department and had just one person where you used to pick up the phone and say, here this is what I need. Trying to find what you were looking for, it was automated so it was a computer doing it. Computers are based on yes and no there's no in-between. Sometimes you need to speak to someone because it's not in the options". This group of clients also expressed difficulty dealing with Government Departments and banking systems due to automation. They felt it made it harder for them to understand. The researcher asked if participants had noticed anything in relation to automation or the increased use of technology in their own job searching process while looking for jobs. One client showed awareness of the increased use of automation in the hiring process when he stated the following, "CVs are all machine read now. They tell you to put certain words in your CV so the machine goes, that's a good word, he's in. You've to put the right words into get to the next level to speak with someone". Another client supported this, "If it's in a job description it literally highlights everything out of it and lists them off so they shortlist about ten candidates and then you're invited for interview". This was new information for some clients who appeared to benefit from developing this insight in relation to job searching. One of these clients also spoke about the benefits he had experienced by being able to automate some of his role following his return to work after his brain injury, he said "You can use automation to your advantage as well. Before I left the job I was in some of the tasks that were kind of repetitive I used to automate, like database kind of stuff and just send out the report. I was given that kind of flexibility in the job to do what I wanted". He said that this also allowed him to start his working day later which suited him.

Practitioner Feedback:

Definitions of automation provided by the guidance practitioners included the following:

- "An increased involvement of technology in the workplace".
- "That technology is becoming more and more in demand in more organisations and often taking the roles that have been previously done by people…seen particularly in banks, factories and supermarkets where service users are interacting with technology more than human interaction. It can be more efficient using technology but is not what the client/ customer is most satisfied with".
- "The use of technology to replace roles that may currently have been done manually. Also, the use of technology to complete tasks that could not be completed in the past by individuals".

- “IT tools and systems in services and industries to increase production and reduce labour costs”.
- “That the workforce is being more dependent on technology”.
- “Automation involves implementing a system to complete repetitive, easily replicated tasks without the need for human intervention or input”.

Of note, some practitioners reported limited or vague knowledge of this topic.

Some participants noted that as automation is increasing they are noticing in their work that there is more of a move from dealing with paper to working with computers more and doing more online, including training. Also that some jobs can be adapted or assisted with tools and this eliminates the need for manpower. Two participants noted the impact of this on the client group they work with where “Clients previous skills may no longer be valid” and “Automation is making it more challenging for our client group to participate in meaningful employment or voluntary work”. One participant felt that technology is not replacing human interaction but being used more as a means of recording and reporting and in assistive technology. Functional benefits of assistive technology for the clients attending Headways vocational service were noted in terms of facilitating an increase in their independence. The importance of up to date training due to the constant evolution of technology was noted. Another participant referred to challenges experienced in their role when technology does not work, emphasising their feeling of being over reliant on it. The impact of automation in the industries of retail, manufacturing and catering in particular was noted. Most practitioners stated that they are not seeking and finding information on the topic, however some noted that they do this by linking in with staff who are more familiar with the area.

In terms of practitioner concerns due to automation in the workplace many noted a possible negative impact on Headway clients seeking work who may not be able to keep up with this change and be unable to access appropriate employment or vocational opportunities they once would have had due to the increased use of technology, for example “Clients will need to upskill or change from previous roles. This can be very daunting for clients”. A possible “lack of human and one to one support needed for some of our client group” when attempting to engage in employment was also noted. Another practitioner stated “clients who may not have an interest or who may not be tech savvy may be at a distinct disadvantage now that there is such an increase in technology in most jobs”. This was reiterated by another who said “IT skills are a necessity in the workplace. This can be a barrier for clients who can do other aspects of the job and

struggle with new learning, especially as around technology, as a result of their Acquired Brain Injury". The importance of clients being made aware of these ongoing changes and offered opportunities to upskill was emphasised. Another expressed a concern in their own role that there may be an over-reliance on automation leading them to be unprepared for times where they do not have access to computers. One practitioner was concerned that automation could lead to the elimination of some jobs. They noted that they are responding to the changes by referring clients to staff with the greater expertise in this area, encouraging clients to look at alternative employment and supporting them to take part in computer classes or access other courses and resources to help them enhance or develop their skills and facilitate new learning. None of the practitioners who participated were aware of any useful texts, literature or initiatives addressing automation in the workplace. When asked what supports and information would be useful for guidance practitioners on the topic of automation in the workplace they felt the following would be helpful: training in Vocational Rehabilitation; links to websites and opportunities for clients to engaged in experiential learning; linking with support workers from various backgrounds and organisations to share advice on how they might tackle any difficulties faced; a newsletter with the latest data and findings in the area; and ongoing training and workshops offered to both staff and clients on automation and its impact on the workplace.

7. Identifying and Measuring Soft skills for the Future Labour Market

7.1 Please provide us with examples of effective tools and methods used to capture ***formal and non-formal learning***

Name of tool or method	Short description (2-5 sentences max)	Link to source	Why this method is relevant (3-6 sentences)
Participation in non-accredited modules			
Participation in activities and groups			
Feedback and assessment forms			
Encouraging clients to partake in different activities in their local communities			

7.2 Please provide us with examples of effective tools and methods used to ***identify/measure soft skills***

Name of tool or method	Short description (2-5 sentences max)	Link to source	Why this method isrelevant (3-6 sentences)
Penelope	Case Management system		Used to capture client attendance in formal and informal learning activities
Award plans	Used to track an individual's progress, including the modules they are working on and have completed		
Careersportal.ie			
EGUIDE	Vocational Assessment	Ballymun Job Centre	
Communication with, observation of and feedback from clients			
SMART goals			

7.3 Please provide us a list of ***informal or non-formal activities*** as identified by your stakeholders

Guidance practitioner

1.) Household tasks/ Home management	
2.) Childcare	
3.) Community integration/ outings	
4.) Work	
5.) Socialising	
6.) Volunteering	
7.) Engaging with others	
8.) Travelling	
9.) Online literacy courses	
10.) Experiential groups	
11.) Social interaction	
12.) Peer Support	
13.) Looking after the garden	
14.) Cleaning the kitchen	
15.) Shopping e.g. for groceries	
16.) Partaking in team cognitive skills groups	
17.) Going to the gym	
18.) Walking the dog	
19.) Studying	
20.) Running	
21.) Attending Headway groups on various topics	*e.g. computers, table tennis, crafts, yoga, gardening, career preparation, work experience*

Employers

1.)	
2.)	
3.)	

Service Users

1.) Reading	*The newspaper, leaflets, books and other literature*
2.) Cooking	
3.) Exercise	
4.) Shopping	
5.) Interacting with other people	*Talking and listening e.g. dating, visiting family*
6.) Watching YouTube videos, Netflix, Tv	

7.) Social Media	*e.g. Tik Tok, Facebook, Instagram, Tumblr*
8.) Meditating	*Learning about yourself*
9.) Travelling	
10.) Hobbies e.g. gardening, crafts	*Learning depends on the specific hobby engaged in*
11.) Cleaning	*Can involve operating machinery and knowledge of different utensils*
12.) Listening to the radio or podcasts	*Music, people talking, current affairs*

7.4 Briefly describe why your stakeholders think it important to identify and measure formal and non-formal learning

(Not assessed)

7.4 Please provide us with a list of ***soft skills*** used in informal and non-formal activities, as identified by your stakeholders

Guidance practitioner

1.) Time management	
2.) Communication	
3.) Navigation	
4.) Listening	
5.) Concentration	
6.) Preparation	
7.) Diet requirements	
8.) Observation	
9.) Visual	
10.) IT literate	
11.) Memory	
12.) Organisation	
13.) Interpersonal	
14.) Teamwork	
15.) Flexibility	
16.) Planning	
17.) Organising	
18.) Leadership	
19.) Delegation	
20.) Reasoning	
21.) Cognitive skills	*e.g. planning, concentration, time management*
22.) Money management	
23.) Mobility	
24.) Home management	
25.) Problem solving	

Employers

General soft skills identified by employers to be important	
1.) Flexibility	
2.) Adaptability	
3.) Problem solving	
4.) Leadership	
5.) Ability to communicate	
6.) Influencing	
7.) Networking ability	
8.) Emotional intelligence	
9.) Negotiating	
10.) Change management	
11.) Coaching	
12.) People management	
13.) Decision making	
14.) Project management	
15.) Resilience	

Service Users

1.) Patience (with selves and others)	*Particular challenges in this area after brain injury noted by participants*
2.) Memory – felt this was involved in the majority activities listed	*Particular challenges in this area after brain injury noted by participants*
3.) Planning	
4.) People management	
5.) Prioritising	
6.) Timetabling	
7.) Multi-tasking	*Particular challenges in this area after brain injury noted by participants*
8.) Being calm (incl under pressure)	*Particular challenges in this area after brain injury noted by participants*
9.) Listening skills	
10.) English language skills	
11.) Attention/ Concentration/ Focus	
12.) Physical Coordination incl balance	
13.) Spelling/ literacy	*Particular challenges in this area after brain injury noted by participants*
14.) Time management	
15.) Knowledge and awareness of Health & Safety	
16.) Organisational skills	
17.) Budgeting and money management	
18.) Research	
19.) Motivation	
20.) Spatial awareness	*Particular challenges in this area after brain injury noted by participants*
21.) Know your limitations (self-awareness)	

22.) Confidence	
23.) Communication skills	*Particular challenges in this area after brain injury noted by participants*
24.) Ability to engage others, respect, Ability to set boundaries, awareness of dynamics with others (Interpersonal/Social skills)	
25.) Physical fitness, stamina (incl ability to pace self)	

7.6 Briefly describe why your stakeholders think it important to identify and measure ***soft skills*** relevant to the workplace.

Service Users felt that having awareness of their own soft skills helped them to perform better. Also, that soft skills underpin hard skills, one said "If you have the soft skills you might have a better idea of what hard ones you'd be better at. I tried to go back to do coding and the doctor told me to stop, it just made my headache worse. If I had thought about it yeah, I do have a problem watching screens for a long time. I jumped in and tried to pick up a hard skill and I didn't have the soft skills to do it". Another participant noted that having awareness of the soft skills of a person can help you to interact appropriately with them, particularly if that person has a disability. The importance of taking control of communicating this information to people to assist them in communicating with them was also noted e.g. "it's a skill to kind of talk about and say, look this is the way I do things…I need to look at people's mouths when they're talking, I'm not being rude." The benefit of having the support of others in applying soft skills in practise, rather than just having the knowledge of them was also noted.

Guidance practitioners felt identifying and measuring soft skills is important to give a better idea of the skills a client already possesses, what they may need help or training with or to capture their learning or growth. The felt it helped staff to assist clients with goal setting. It was also felt that identifying and measuring soft skills relevant to the workplace can support a client to match their strengths with a role that meets their needs and identify areas where support is required. Staff felt it also helped in their service delivery where it assisted them in tailoring the group to their skill level, for maximum learning.

8. Main Findings and Conclusions

8. 1 Please describe your main findings and implications after the finalization of the interviews/focus groups.

Most service users did not have a comprehensive understanding of the concepts of informal and non formal activities. However once definitions were provided, they were able to generate a broad list of these activities and the soft skills involved in these. They referred to more recent technological developments impacting learning not covered in the original INFORM such as social media, podcasts and media services providers and video sharing platforms (Netflix and YouTube). Particular reference was made to the impact of the brain injury on various soft skills, particularly in the areas of patience (with others and self), memory (the involvement of this cognitive function in most of the skills was noted by them), multi-tasking, staying calm and communicating. The importance of being able to take notes or have support from another in retaining important information in meetings was noted by more than one participant, which would have particular relevance for learning new skills and in the workplace for this client group. Participants felt that it would be also important to include the ability to influence people and knowledge sharing in the Future Proof Your Career tool. The importance of sharing information in the workplace was emphasised by one participant who felt that in some sectors this doesn't happen frequently, resulting in important organisational knowledge or tacit knowledge being lost. Some service users felt that it is important for soft skills to be identified and measured for reasons including increased performance through increased self-awareness, partly because it was felt that they underlie hard skills and also so that people can be aware of the needs of people with disabilities and engage with them better. Increased awareness building of the importance of developing soft skills for workplace performance would be beneficial for service users. Some, but not a comprehensive awareness of automation in the workplace was present amongst Service Users. The pace of technological change and ability to keep up with this was noted as an issue. The need for people with disabilities to be able to get support from humans within organisations, particularly in more abstract situations, was also noted. Increased complexity in dealing with day to day activities due to automation was noted by the service users. Benefits of automation were also noted by Service Users however such as helping to make a role more flexible for the employee by removing repetition were highlighted and are an important consideration (although some brain injury survivors can benefit from repetitive tasks in their role that are routine or procedural to remove some degree of the cognitive effort).

Some but not all guidance practitioners had some understanding of the concept of automation in the workplace, however they stated they were not actively seeking more information about this

topic. Many expressed concerns about automation of job roles for the particular client group they work with (job seekers affected by Acquired Brain Injury), including challenges in their ability to keep up with these technological developments and their skills becoming invalid, which could leave them unable to access employment. Some are assisting clients in addressing this by assisting them to gain awareness of supports they may need and help them to access computer training and other opportunities to upskill. Some of the training they provide for clients involves development of soft skills, as these are commonly negatively impacted by brain injury, however one practitioner noted that soft skills can be overshadowed by more obvious or visible consequences of brain injury and tend not to be an individual's immediate priority in their recovery. They were all unaware of useful texts, literature or initiatives addressing automation in the workplace which highlights that increased access to research or training in the area is required. Many of them felt that they could benefit from increased support and training in the area, including links to websites or newsletters related to the topic and the opportunity to liaise with relevant multi -disciplinary staff in different organisations to get advice. Some practitioners felt that upskilling staff in the area of automation should be an area of focus for the organisation due to its relevance in the delivery of the vocational programme. Some practitioners had a good understanding of formal and informal learning. They do not appear to have access to scientifically valid tools and methods of capturing these types of learning, however. A reasonable understanding of the types of activities that constitute these types of learning and the types of skills involved was present. The EGUIDE vocational assessment developed by the Ballymun Job Centre was highlighted as a useful method or tool for measuring soft skills. Other than this the methods of measuring varied and were not scientific. Practitioners felt that soft skills are important to identify and measure to gain awareness of a clients skill level and learning and help set vocational goals, particularly for those who are unable to return to the job they held prior to injury and need to reskill and obtain a position that matches their current strengths and needs. Additional focus on values, behaviours and temperaments, confidence and boundaries in the Future Proof Your Career tool was suggested by practitioners.

The employers who participated in the research had detailed awareness of and current insights into automation in the workplace, likely due to their roles as HR and Recruitment professionals in large global organisations. They reported clear and significant organisational benefits to the automation of roles or aspects of roles, already being prioritised and implemented in their organisations, such as increased speed and accuracy, reduced labour costs and increased employee satisfaction, in part through the automation of repetitive tasks allowing more employee focus on tasks that are more challenging or add value to their roles. The importance of the "human eye" and human skills was highlighted by one employer, however. They felt that hard or technical skills will be needed for gaining employment in a future world of work, such as computer

programming, language fluency and people management. The demands of today's workplace were highlighted by both, including a fast pace of growth, a demanding customer base, advances in technology, cultural changes, diversity and inclusion challenges and the increased importance of soft skills in combating the negative effects that may otherwise result from being required to adapt. It was noted that while soft skills were perhaps not considered as important as the more tangible competencies in the past, they are now very much becoming more valued and prioritised and seen as an add on to help employees "flourish" in their roles. Both employers emphasised the importance of communication, influencing and leadership in particular. One employer stated that eventually a lot of the technical skills might be covered off by automation, but human skills will still be required to blend in with that and as they are very difficult to programme he felt they are more important. Some challenges in the identification of soft skills in the interview process appeared to be evident. They do not appear to be assessed across the board, in these cases only for some specific areas of the business e.g. early careers and senior roles or those with decision making authority or people management. One employer said that organisations are actively working on how to capture soft skills more accurately in the interview process and standardise processes across the organisation. Behavioural or situational questions, strengths-based assessments, online assessments and written tasks or challenges are used to gain evidence of the presence of these skills early in the recruitment process. Of additional note, was the importance of having a diverse workforce was highlighted by one employer who stated many organisations are keen to "diversity their talent pool" and broaden out the types of people working in their organisation considering factors such as social demographics and neurodiversity.

In summary, it was clear that employers are aware of and starting to place increased value on the importance of soft skill development alongside technical skill, in keeping up with workplace developments and demands and to ensure organisational success. Service users and guidance practitioners were found to have gaps in their knowledge in relation to informal and non-formal learning, automation in the workplace and the soft skills required in the workplace to help obtain employment in light of these technological developments. More focus is required to train both service users and guidance practitioners on this topic and ensure they are up to date on developments. The informal and nonformal activities that develop individual soft skills have evolved since the development of the INFORM tool so adaptation to include different ways learning material is presented by technology in particular and social media developments. The impact of disability on individual ability to keep up with technological advances, learn the required soft skills and use new technology must also be factored in, specialised training and expertise will be required for this. While all participants felt that it is important to identify and measure soft skills, methods varied so there is a need for reliable and valid standardised tool for this. The EGUIDE was provided by one practitioner as a means of assessing soft skills already being used. The

importance of a diverse workforce incorporating individuals from different social demographics and from a neurodiversity perspective was noted and is very positive in light of the cohort of clients this project is working with but job seekers must also ensure that they possess the relevant skills to stay relevant in the future workforce and guidance practitioners need further support to facilitate them in developing these.