IO1 National Report Austria

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Contents

1. Introduction

The purpose of this report is to lay the foundation of understanding, identifying, and responding to the needs of the under-represented population groups defined as Missing Entrepreneurs - women, youth, seniors, and migrants. It explores the situation of missing entrepreneurs in Austria what resources and available support exist to meet their needs. It focuses on existing good practices and the possibilities of integrating them with the project approach. The report is based on a number of publications on the spere of entrepreneurship and skill training in Austria and other countries.

2. Key Findings from Desk Research

The Missing Entrepreneurs of Austria

Gender

Unemployed women are slightly less likely than unemployed men to seek self-employment, but both groups hover around 3 % (S7, p.153). With a total self-employment rate of 7.9%, Austrian women are below the EU average of 9.6% (S7, p.52). On the other hand, they are much more **active in business creation** and early-stage entrepreneurship -7.7% vs. 4.9% (S7, p.58). The share of entrepreneurial activities driven by necessity rather than opportunity was much lower than the EU average - 14.0% vs. 21.1% (S7, p.262). The share of enterprises initiated by women is increasing - from 39.5% in 2010 to 44.5% in 2017. With a share of 49%, Vienna is close to full equality (S7, p.262). Women entrepreneurs in Austria are able to offer the same number of innovative products services as men.

Women are significantly less likely than men to possess the **entrepreneurial skills** needed to start a business – with 41 % compared to 58,1 % (S7, p.62). Among those self-employed, women are more likely to have a lower level of qualification - 9,2 % have less than upper secondary education compared to 5,2 % for men, while 47,4 % have a tertiary level of education - vs. 51% for men (S7, p.69). Unsurprisingly, a much greater proportion of women (50,3 %) than men (38,3 %) express a fear of failure as a reason preventing them from starting a business (S7, p.63).

A significant **gender gap** exists regarding the role of women as employers – in Austria they are much less likely than men to take on other employees. The main reason for that appears to be financial insecurity. Women are also half as likely as men to pursue growth – only 4,2 % of female entrepreneurs reported that they expected to create at least 19 jobs over the next five years – compared to 8,3 % for males (S7, p.79). Female entrepreneurs are much less likely than men to work in teams - 12,5 % vs. 21,3 % (S7, p.71). Companies founded by women attract much less venture capital that average - 2,52 million USD compared to 6,42 million (S7, p.86).

One of the stylised features of self-employment is that there are very high exit rates, reflecting difficulties in assessing future returns and over-estimating the likelihood of success. Self-employed women are more likely than men to have a tenure of less than 10 years - 49.9 % vs 44.4 % (S7, p.76).

While a gender gap in Austria certainly exists, as women in general operate smaller businesses with less employees, capital and growth ambitions than men, the reasons for that situation are complicated and not easy to explain. Some of it can be put to historical developments, as the percentage of women entrepreneurs is clearly on the rise. There might be other factors, such as institutional barriers and cultural attitudes, but a clear **skill gap** is noticeable – if women are less confident in their entrepreneurial skills and have a lower qualification, it is no surprise that they would pursue less ambitious goals than men.

Youth

At 3.3 %, youth in Austria have one of the **lowest levels of self-employment** in the EU - average 6.5% (S7, p.95). The figure is close to 4-5 % for young men, however, a gender gap of close to 2 percent keeps the average down (S7, p.99). While youth in general are less likely to have other employees, somewhat surprisingly, that is even more often the case for young men than women – a trend that started recently. With 7,3 %, young people are more likely than adults to be actively involved in setting up a business they will own or co-own - the so called pre-start up activities (S7, p.103).

Young people are slightly less likely than adults to possess the entrepreneurial skills needed to start a business – 45 % vs 49,6 % (S7, p.107). They cite fear of failure as a reason not to start a business about as often as adults, with a slightly higher rate

corresponding to their lower skill level. Self-employed youth have a **higher educational level** than the average population - 52 % vs 49,7 % have a tertiary education (S7, p.111).

Youth entrepreneurs are more likely to work in teams - 22,3 % vs 17,7% for all adults (S7, p.112). On average, they work about 10 hours per week longer than their employees – compared to close to 13 for all adults (S7, p.113). Young entrepreneurs are much more likely than adults to **pursue growth** - 9,5% reported that they expected to create at least 19 jobs over the next five years – compared to 6,6% for adults (S7, p.116).

With youth, the main challenge appears to be **taking the first step**. Young people who do start a business are well qualified, ambitious and capable. The problem is that there are so few of them. With youth, the main needs are less about skill training than about finding the confidence to try – better awareness of success stories and of existing support infrastructure can induce more of them to take a chance and contribute to a better future.

Seniors

Seniors in Austria are **less likely to be self-employed** than the EU average - 15.5% vs 17.7% (S7, p.125). Entrepreneurs aged 50-64 are about 2 % more likely to employ other people than the average, while those aged 65-69 are 8 % less likely (S7, p.128).

Senior entrepreneurs have the same skills as the rest of the population, but are about 5% less likely to give up on their ideas because of fear of failure (S7, p.137). They have a slightly lower level of qualification than average – 46,1 % of self-employed seniors have a tertiary degree compared to 49,7 % for all adults (S7, p.141). Senior entrepreneurs are 2 % less likely to work in a team than average (S7, p.142). Senior entrepreneurs aged 50-64 work about 2 hours per week longer than all adults, while those aged 65-74 work 5 hours less (S7, p.143).

With seniors, it is worth distinguishing between the group **under 65**, who are performing very well, and those over that age, who begin to lag behind the average. The first group is more likely to employ other people, while the latter is more often self-employed. Many of these people are skilled and confident, with considerable entrepreneurial experience. However, there also exists a group with less qualification, who might need some training and improved access to financing.

Migrants

Migrants born in another EU member state used to have a higher rate of self-employment than average, but this is no longer the case. The self-employment rate of migrants born outside of the EU has always been lower, with a difference of close to 4 % (S7, p.165). Interestingly, entrepreneurs born in the EU are much less likely to employ other people - 36,9 % compared to 42,5 % for locals, while for those born outside the EU the number is significantly higher - 56,5 % (S7, p.168).

It is a general fact that immigrant entrepreneurs face greater barriers to entrepreneurship than the non-immigrants. They have to deal with some level of language barrier, adapt to a different culture, acquire knowledge of the legal requirements, market situation, and grow their networks. Apart from that, it is very hard to treat migrants as a homogeneous group, as they have many different specifics. Apart from linguistic support and cultural orientation, any other support measures need to be adjusted to the needs of the concrete group of people.

Entrepreneurial skills in Austria

In 2012, OECD carried out a Survey of Adult Skills. Some (13.7%) of Austrian adults indicated that they had no prior experience with computers or lacked very **basic computer skills**. The proportion of scoring at Level 1 or below in problem solving in technology-rich environments in Austria was 40.8 % (S6, p.4). In addition, foreign language immigrants tend to have lower literacy skills than the native-born who spoke German from birth (S6, p.8).

There are differences in skills proficiency related to socio-demographic characteristics, such as gender, age, level of education and social background. Proficiency in literacy and numeracy peaks among 25–34-year-olds while the proficiency of 55–64-year-olds is generally the lowest of all age groups. In Austria, there is a particularly large advantage in literacy proficiency among 16–29-year-olds who graduated from general rather than vocational programmes at the upper secondary level (S6, p.9). This reflects the relatively strong performance of graduates of general secondary programmes rather than poor performance among graduates of vocationally oriented programmes (which is still above the country average).

A study extracted from over 1.5 million job advertisements from Austria's largest online job portal (karriere.at) to analyse employers' skills needs and the relative importance of, and demand for, different skill types over the last 15 years, indicated most frequently

Austrian employers require **cognitive skills**, previous work experience and ICT skills, and they also expect their (future) employees to possess all three of these requirements . Of all the non-cognitive skills analysed, employers attach particular importance to the ability of employees to work as part of a team, and to their communication skills, independence, flexibility and accuracy: these appeared in 20% to 40% of all job advertisements (S5, p.23).

Austria ranks 13th out of 28 EU Member States in the Digital Economy and Society Index (DESI) 2020 (S2, p.3). Austria is an above average performer in every indicator of the Human Capital dimension of the DESI (digital skills, software skills, ICT graduates and specialists). 66% of people between 16 and 74 years of age have at least basic digital skills (the figure is 58% in the EU as a whole) (S2, p.8). The proportion of ICT specialists in the workforce is higher than the EU average (4.5% compared to 3.9% in the EU) (S2, p.8). However, Austrian enterprises **lack staff with the right IT skills**. Industry associations reported that a high number of their members are faced with a digital skills gap.

The lack of necessary skills is not the only reason Austrian businesses struggle on the path towards digitalisation. Some business owners and managers are not convinced of the benefits of digitalisation. Renewing the business model costs time and money that they aren't necessarily wiling to spare. Furthermore, existing know-how is not always disseminated effectively (S4, p. 17).

While large Austrian companies and public administration have already advanced significantly in terms of digitalisation, many **SMEs seem to lag behind** (S9, p.9). This remaining "digital divide" between large companies and SMEs is even more relevant as the SME sector is particularly important in Austria.

The **uncertainty surrounding digital transformation** is still being felt by many SMEs, as a study conducted in 2018 among more than 1100 from seven sectors shows (S9, p.20). 36 percent of the companies surveyed stated that missing financial resources were the biggest challenge of the digital transformation. Immediately after, with 35 percent, there is the lack of know-how for implementation n. In turn, where it comes to the need for support in the digital transformation, 48 percent of study participants said that they needed advice to implement the digital transformation.

In particular, a **lack of e-leadership training programmes** and courses addressed to SMEs and start-ups has been identified (S1, p. 128). Neither higher and executive education, training providers, or online and blended learning providers is able to offer a

solution to address the need for providing e-leadership skills in an integrated, well recognised and accredited format. In order to deal with their learning needs, e-leaders are pulling from existing resources such as Massive Open Online Courses (MOOCs), blended education, and short courses, so that they can it least partially meet the challenges of the present.

A research on e-leadership skills revealed a mixed satiation in Austria depending on the category (S1, p. 154): Austria's main strength is the **availability of latest technologies** as well as extent to which firms make use of social networks and internet of things. The country is relatively advanced in the aspects of Education and training and innovation opportunities. It is in the middle of the pack with regards to the Business environment, and lagging behind in the e-Leadership pipeline and e-Skills policy.

Available trainings

The 'Digital Roadmap Austria' was published in January 2017 (S3). Fostering the digital transformation in selected priority topics (e.g. data, art/culture, climate and environment protection, etc.) and improving user-centric, modern e-government services are among the main topics within the upcoming strategic action plans.

The new government programme recognises the importance of digital skills and provides for a number of measures to enable pupils and teachers to acquire digital competences to pupils and teachers. Digitisation of school education is a major priority. It is important that digital education is integrated into all curricula. Austria is also active in improving cybersecurity, by e.g. informing about COVID-19 themed phishing or malware emails and fake shops pretending to sell masks and other protective equipment.

Austria has developed its own competence model for digital skills, called "Digital Competence Framework for Austria - DigComp 2.2 AT. It is based on the European Reference Framework for Digital Competences (DigComp 2.1). The Competence Framework serves to classify and compare digital skills and thereby makes a contribution to facilitate the exchange on desirable knowledge and competences in the digital world of life and work.

With the Ministry for Digital and Economic Affairs (BMDW), created in January 2018, Austria has a strong federal actor that can centrally steer digitalisation and coordinate different initiatives. In 2019, BMDW launched a review of **apprenticeship programmes** to develop updated and new apprenticeship training content. In parallel and in addition

to upskilling the domestic workforce, the Austrian Business Agency supports Austrian companies in finding skilled workers abroad to work in Austria, including digitally skilled workers.

Three **digital innovation hubs** began operations in autumn 2019; these also help SMEs to improve their staff's digital skills. These include the COMET (Competence Centres for Excellent Technologies) Programme, which promotes the development of competence centres with the aim to develop skills and increase internationalisation among Austrian companies. The "KMU digital" programme supports SMEs in different ways by a) providing a first status check to identify the digital starting position of an SME, b) offering consulting services on how to digitise the company, and c) providing funding for participation in digital training. The Digital Innovation Hubs programme, launched in 2018, also addresses SMEs specifically.

A Professional **MBA in Entrepreneurship & Innovation** of offered jointly by the Vienna University of Technology and Vienna University of Economics and Business. An increasing number of **free MOOCs** are becoming available in German (next to the much greater number of resources available in English. Some examples include: eBusiness for SMEs, Business Process Management, IT security, and Database Management with SQL.

With a share of **88% of companies active in continuing education** (courses and / or other forms of continuing education), Austria is well above the EU-28 average of 73%. (S8, p.20). Around 20 % of employees attending courses in continuing education are focusing on improving their **leadership** skills, the same number – their **management** skills, 17 % - general **ICT** competence and 11 % - professional ICT (S8, p.25).

Although it does not apply directly to upskilling, it should be noted that the Federal Government amended the Alternative Financing Act in June 2018, to remove restrictions on the eligibility of the self-employed, shift the focus from financing instruments to investments, and raise the thresholds that require information disclosures from EUR 100 000 to EUR 250 000 for those seeking less than EUR 5 million. These changes are expected to improve access to **crowdfunding** for very small companies, particularly those operated by youth entrepreneurs (S7, p.262).

3. Research Results: Best Practices

Title of the best practice: KMU digital	
Website: https://www.kmudigital.at/	**Social media link(s)**:
Leading organization/Author: Ministry for Digital and Economic Affairs (BMDW)	
Year/Timeframe: 2018 onwards	
Target group(s)/Beneficiaries: SMEs	
Description The support programme "KMU digital" was launched in 2017 and targets SMEs. Its main objectives are to provide **information** and raise awareness on topics related to the digitalisation of economy, including an overview of existing European and national support measures, but also to concretely support Austrian SMEs in digitalising. This concrete support consists among others of **company-specific coaching** and the funding of training programmes. Generally, the programme is well known and positively perceived by the industry in Austria. The second biggest challenge regarding the digital transformation of SMEs is the lack of know- how – right after the lack of financial instruments – which is addressed under the scope of the programme. In 2018, the programme supported 42 projects that were currently active.	
Relevance to The Missing Entrepreneurs: Awareness raising; Coaching opportunities; Funding opportunities	

Title of the best practice: aws	
Underline the type that best describes the best practice: **Program**	
Website: https://www.aws.at/	**Social media link(s)**:
Leading organization/Author: Ministry for Digital and Economic Affairs (BMDW) Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)	
Year/Timeframe: ongoing	
Target group(s)/Beneficiaries: SMEs, prospective entrepreneurs	
Description: Austria Wirtschaftsservice Gesellschaft mbH (aws) is the promotional bank of the Austrian federal government. It supports companies in implementing their innovative projects by offering soft loans, grants and guarantees, particularly in cases where the funds required cannot be obtained sufficiently through alternative funding.	

Specific information, coaching and services are also offered to prospective, existing and expanding companies. Support provided through the aws can help entrepreneurs: - set up an enterprise more easily, - access soft loans from EUR 10,000, - access finance by providing guarantees, - develop and implement innovations, - check strategies thoroughly.
Relevance to The Missing Entrepreneurs : Funding opportunities; Coaching available

Title of the best practice: fit4internet	
Underline the type that best describes the best practice: **Other**: Platform	
Website: https://www.fit4internet.at/	**Social media link(s)**:
Leading organization/Author: fit4internet association	
Year/Timeframe:	
Target group(s)/Beneficiaries: youth, employees and those re-entering the workforce, seniors	
Description fit4internet is the platform that contributes to the increase of digital competences in different ways, particularly by bundling different forces: The f4i-tools offer the possibility of obtaining an orientation on one's own level of competence and thus, continuing to learn and improve oneself in a targeted way. On the one hand, (learning) resources to increase digital competences are made available in the info modules and focus modules. On the other hand, there is the possibility to search for specific learning offers aimed at digital competences from different providers in the fit4internet catalogue. fit4internet acts as a mediation platform, not as a course provider.	
Relevance to The Missing Entrepreneurs: Digital competence assessment; Free educational resources; Course selection	

Title of the best practice: Unternehmerin macht Schule
Underline the type that best describes the best practice: **Project**

Website: https://www.wko.at/Content.Node/kampagnen/unternehmerinmachtschule/start.html	**Social media link(s)**:
Leading organization/Author: Federal Ministry of Science, Research and Economy (BMWFW)	
Year/Timeframe: ongoing	
Target group(s)/Beneficiaries: young people of school age, particularly girls	
Description : The school can make an important contribution to attracting more people to the adventure of "entrepreneurship" by awakening the courage and desire to be entrepreneurial in young, growing people. With the project "Unternehmerin macht Schule", successful female entrepreneurs from all over Austria inspire schoolchildren for an entrepreneurial career. Using their own example, they report on the opportunities that entrepreneurship opens up and what can be achieved with an entrepreneurial spirit. They motivate schoolgirls in particular for an independent professional future.	
Relevance to The Missing Entrepreneurs: Awareness raising; Success stories; Motivation; Potential partnership	

4. Research Results: Questionnaires

A questionnaire was sent out online in order to understand better the training needs of entrepreneurs past and present. A total of 47 responses were submitted, the results of which follow. The mismatch in the some of the data reflects partial answers by some respondents.

The respondents were nearly perfectly divided by gender. As far as age is concerned, all age groups were represented, with the ones 35-44 years old being the most active, while respondents aged over 65 were the least represented. 29 (62%) of respondents were born in Austria. 21 % came from EU countries: Germany, Poland, Serbia, Slovakia, the Czech Republic, while the remaining 17 % - from non-EU countries: Afghanistan, Ethiopia,

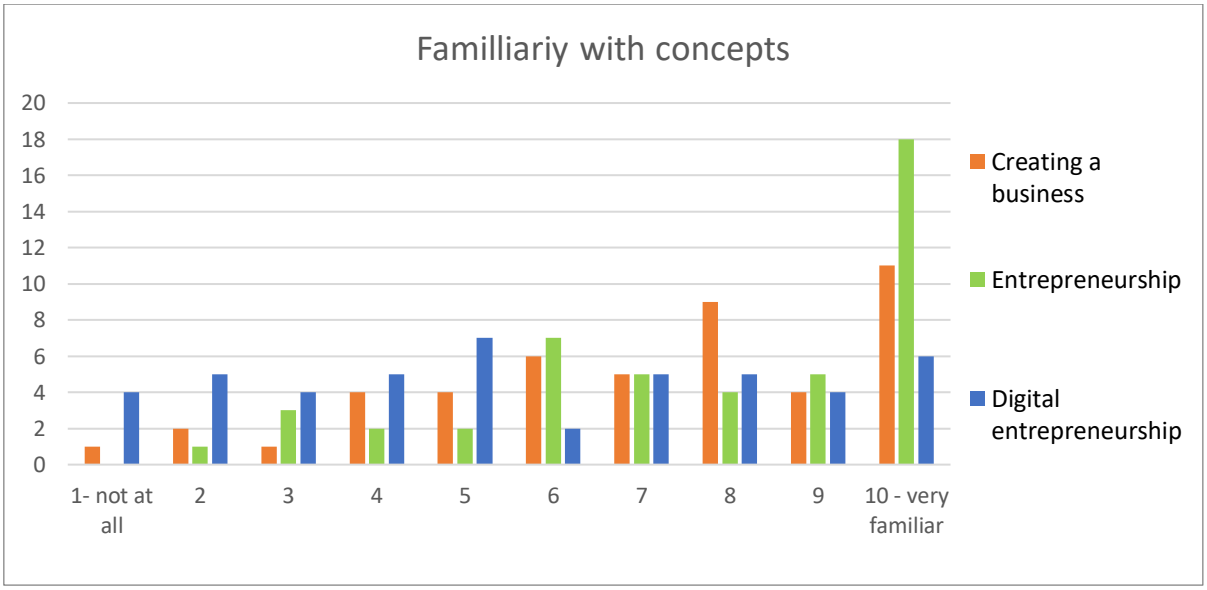
India, Syria, Turkey. 70% were Austrian citizens, while 26 % were foreigners with a long-tram stay. Only 4% (2 respondents) were refugees.

The vast majority of respondents (83%) did not possess a university degree. Respondents can be divided into two subgroups of roughly equal size: a lower education one – less then secondary educational level, and one with secondary education and above.

20 respondents had owned a company in the past, while 22 did not. Some of the companies existed in the past, while others are still functioning - 7 companies have been closed down, 1 has been sold, and 9 are operational.

The main reasons for closing down of companies have been related to the market and the ability to meet financial obligations (financial reasons: 7, didn't correspond to the needs of the market anymore: 6). That said, a number of companies were closed for personal reasons – their owners couldn't keep up with the demanding lifestyle of an entrepreneur (4), and were not prepared to make further sacrifices.

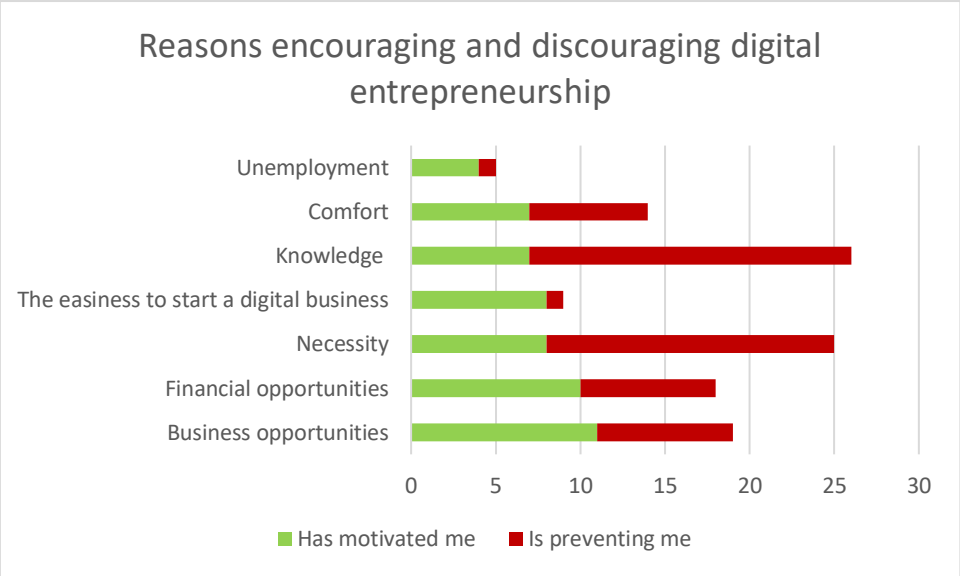
The operational companies include different examples of businesses: 1 company has just been established, 2 have existed for 2 years, 2 – for around 10 years, and 2 – for more than 20 years. 8 companies experience minor and 4 – major problems, while 1 reports no problems at all. The pandemic has had an adverse effect on most of them.



An interesting picture is revealed regarding how the respondents self-evaluate their knowledge on several competences. 70% rate their knowledge of entrepreneurship as significant (6 and above on a 10-point scale), and half of that number – as the highest possible. Yet when it comes to the knowledge of actually creating a business, the percentage of absolute confidence drops to around two-thirds of the value of

entrepreneurship. Perhaps respondents are more likely to rate higher the more abstract category, even if they have experience with business.

Still, more than two-thirds of respondents rated their knowledge of both entrepreneurship and starting a business positively. That is not the case with digital entrepreneurship – more than half of respondents rated their competences as insufficient (5 and below on a 10-point scale), and only 13% gave it a maximum result. This seems to indicate that the majority shared the understanding about the specifics of digital entrepreneurship – it is far more than entrepreneurship in a digital environment, and knowledge and experience gathered with a traditional business do not simply translate to the new context.



Despite the lower level of knowledge, the area presents an interest for a significant number of respondents. 17 of them (36%) have considered getting into digital entrepreneurship. The existing business and financial opportunities, as well as the relative ease of starting on online business, are the main pull factors. However, the majority of respondents still prefer to stay out of digital entrepreneurship, the inability to afford starting a business and the lack of knowledge being the main reasons preventing them from taking the initiative.

Some of the concrete comments by the respondents highlighted further incentives of digital entrepreneurship include: the relevance of digital entrepreneurship on the current market, especially with closing down of companies because of COVID-19; the benefits of past experience running a company; the benefits of shifting some of the activities of the current business online, e.g. creating an online shop; cooperation with

existing platforms, e.g. Lieferando (a food delivery service); saving
on travel; the ability to run a business even in a state of poor health that would have made personal attendance impossible; the benefits of self-employment contrasted to the comparative difficulty of finding employment in Austria,

On the negative side, respondents mentioned: a lack of interest in digital entrepreneurship in general – either because of the job security of employment or of retirement plans; a lack of concrete business ideas; a lack of opportunities; a lack of know-how.

Respondents were asked to rate 11 of their competences related to digital competences an a scale from 1 to 10. They retributed the greatest importance to communication (34 max answers)– which is also the competence in which they rated their own skills the highest (14 max answers). The other competences considered important – financing, operational management, and product-service-development, are also among those where respondents have reported a higher score. It is noticeable that all these competences are a part of the traditional entrepreneurship, while competences exclusive to the digital world such as digital marketing, social media management, data analysis, web-development, were both perceived both as important and less developed. The same applies to the competences of project management, business networking and design thinking – perhaps considered 'softer' competences.

Some additional competences to the ones in list were mentioned, including knowledge of Austrian specifics, such as laws and tax policy, developing business ideas, retaining customer loyalty.

Because of the identified knowledge gap, most respondents showed an interest in a training to improve their competences regarding digital entrepreneurship. Preferences regarding the length of such a training varied (36% - less than a month, 30 % - 1-2 months, 9 % - one month), but more than two thirds agree that the overall duration should not exceed two months.

Preferences related to the mode of the training are quite varied. 60% of respondents agree that at least some kind of face-to-face interaction is needed (32% blended learning, 28% - face to face), while slightly greater number desire some form of online participation (40 % plus for online learning alone). Thus, blended learning appears the only form of training to satisfy the majority. All but 1 respondent possess devices enabling them to study online, such as computers, smartphones, tablets etc.

5. Conclusions and Recommendations

Women in Austria are very active in business creation. While they still in general operate smaller businesses with less employees, capital and growth ambitions than men, the situation is improving. The number of companies initiative by women grows and initiatives such as Unternehmerin macht Schule are a good example of inspiration for future generations of entrepreneurs.

While young entrepreneurs in Austria are highly skilled and ambitious, there aren't very many of them. More awareness raising and skill training is needed to incentivise more young people to try out their ideas by setting up businesses.

Seniors under 65 are very active in the entrepreneurial sphere, being highly skilled and experienced. On the other hand, those over that age more rarely employ others, even if they are self-employed. More research is needed to establish the exact reasons for that and if they need support is setting up businesses.

Migrants in Austria cannot be treated like a homogeneous group. While linguistic training and cultural and legal orientation are certainly welcome, sometimes these people come from a very active entrepreneurial environment and already have the skillset necessary to set up a business.

Despite rapid advances in technology, Austrian enterprises are experiencing a digital skill gap – many employees simply don't have the necessary ICT skills to deal with the challenges of their work. While larger companies are capable of addressing those needs through training initiatives, SMEs and start-up in particular are especially vulnerable.

There are numerous government and civil sector initiatives to address the area of digital competences in general, but not all of them are suitable to the needs of prospective entrepreneurs. Some university degrees and free online courses are the best available resources so far. It would be helpful if existing resources are supported by interactive workshops. The ability to perform and skill assessment using an adapted version of DigiComp is a clear strength for Austria.

Prospective entrepreneurs in Austria can find ample support in the form of coaching and funding opportunities. Better awareness of these option will stimulate more people to start their own initiatives, particularly young people, who seem to need the most encouragement.

Digital entrepreneurship is a new field requiring a specific skillset,
and even seasoned entrepreneurs often lack the knowledge to transition to the online sphere. In particular, competences such as digital marketing, social media management, data analysis, and web-development, are areas where few potential entrepreneurs feel confident.

That said, for many even the more foundational entrepreneurship skills are missing. Because of that, if a training is to meet the needs of diverse groups of potential entrepreneurs, it must consist of two sections with a different level of difficulty: a foundational module focused on entrepreneurship and digital skills, and an advanced module with an emphasis on digital entrepreneurship. Based on the survey responses, blended learning is the preferred form of delivery and the desired duration is less than 2 months. That duration should be considered indicative for a single module, as the majority of participants will be unlikely to go though both, and for those who do, a significant number of respondents were willing to dedicate up to 4 months for training purposes.

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