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National Skills Gaps and Needs Analysis: Hungary

05/2024

Pannon Business Network Association

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Abbreviations and glossary of terms

AI	Artificial Intelligence
AT	Austria
ASP	Associated Strategic Partners
BH	Bosnia and Herzegovina
BG	Bulgaria
CE	Circular Economy
CZ	Czech Republic
DE	Germany
DR	Danube Region
EU	European Union
HR	Croatia
HU	Hungary
i4.0	Industry 4.0
IoT	Internet of Things
LCA	Life Cycle Assessment
LP	Lead Partner
MD	Moldova
NGO	Non-Government Organization
PP	Project Partner
R&I	Research and Innovation
RO	Romania
RS	Serbia
S3	Smart Specialization
SK	Slovakia
SL	Slovenia
SME	Small and Medium Enterprises
SO	Specific Objective
STEM	Science, Technology, Engineering, and Mathematics

Introduction

This National Report for Hungary is an integral component of the Transnational Skills Gaps and Needs Analysis, aimed at dissecting the unique barriers and opportunities that lie within Hungary's transition to a more circular, innovative, and digital economy. Through a meticulous examination of the current state, this report endeavors to illuminate the path forward, identifying specific needs and proposing strategic interventions to empower women entrepreneurs in the realm of CE, S3, and i4.0.

Amidst the backdrop of a global pandemic and shifting geopolitical landscapes, the urgency for this analysis has never been greater. The resilience and agility of economies hinge on its ability to harness the potential of its female entrepreneurs, equipping them with the skills and knowledge to thrive in an increasingly competitive and sustainable marketplace.

This report synthesizes data collected from a comprehensive survey, stakeholder interviews, and case studies, offering a nuanced understanding of the skills landscape in Hungary. The objective is not only to chart the existing skills gaps but also to forge a roadmap for capacity building, policy intervention, and collaborative action that aligns with the nation's aspirations for economic revitalization and gender equity in entrepreneurship.

As we delve into the findings and recommendations herein, it is our hope that this report will serve as a catalyst for concerted efforts to bridge the skills divide, fostering an environment where women entrepreneurs can lead the charge towards a brighter, more sustainable future.

1 Methodology

Desk research, surveys, stakeholder interviews, case studies, and comparative analysis are used for to ensure a robust and inclusive analysis. By employing a multi-dimensional methodology, a detailed and nuanced understanding of the skills gaps and needs among women entrepreneurs in the Danube Region is aimed to be provided. This approach ensures that the analysis is both broad in its scope and specific in its findings,

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providing a solid foundation for the development of effective support strategies for the transition towards a more sustainable, digital, and circular economy.

Table 1: Methodology applied

Approached applied	Description of the performed task
Desk research	Review of the currently available national surveys and data from the Statistical Office and studies on the relationship between the circular economy and hungarian women entrepreneurs is made in order to be established a baseline understanding of the current skills landscape for women entrepreneurs in Hungary.
Survey among women entrepreneurs	The analysis incorporates results from survey conducted among women entrepreneurs form Hungary. It was organized in the period 01/04/2024 – 03/06/2024 39 of respondents were identified from different sectors and questionnaires were provided to them by SurveyMonkey platform. The survey provides both quantitative data and qualitative insights to analyze prevailing skills gaps and needs. 39 of responses are collected which is equal to 78% responding rate and could be accepted as quite sufficient for the main goal of the current Analysis.
Stakeholders interview	In-depth interviews with industry experts, policymakers, academia, and support organizations for better understanding the broader ecosystem and support structures for WEs are made. A policy maker, two university professors, a successful female entrepreneur and a female sustainability expert were contacted and 4 of interviews are done. Through them are explored perceptions and suggestions for facilitating a successful s3 and i4.0 transition under CE aspects of WEs in Hungary.
Successful case interviews	Successful case 1 of interviews with WE who have effectively implemented circular transition are conducted aiming to be identified the motivational and successful factors which helped the WE through this process focusing on obtaining the necessary skills.

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To effectively understand the dynamics of the skills gap and needs within Hungary, a carefully curated sample of women entrepreneurs and female-led startups has been selected for this study. This sampling approach is designed to ensure a comprehensive analysis that reflects the diverse sectors and regions within the country. By examining a representative cross-section of businesses, this investigation aims to identify prevalent challenges, opportunities for growth, and specific skills necessary for thriving in the realms of the Circular Economy, Smart Specialization, and Industry 4.0. This methodological step is crucial for deriving actionable insights and tailored recommendations that will empower women entrepreneurs to navigate and succeed in the evolving economic landscape of Hungary.

In the following text, a detailed structure of the sample comprising women entrepreneurs who participated in the survey is presented, along with the demographics of the interviewees, and an illustrative case study.

2 Hungary

2.1 General presentation of Hungary

Western Transdanubia statistical region includes 3 counties on the western border of Hungary, Győr-Moson-Sopron, Vas and Zala. With its more than 11,000 km2, it covers 12.2% of the country's territory and has 657 settlements (2023).

Source: https://www.researchgate.net/figure/NUTS-2-Regions-of-Hungary_fig6_344729696

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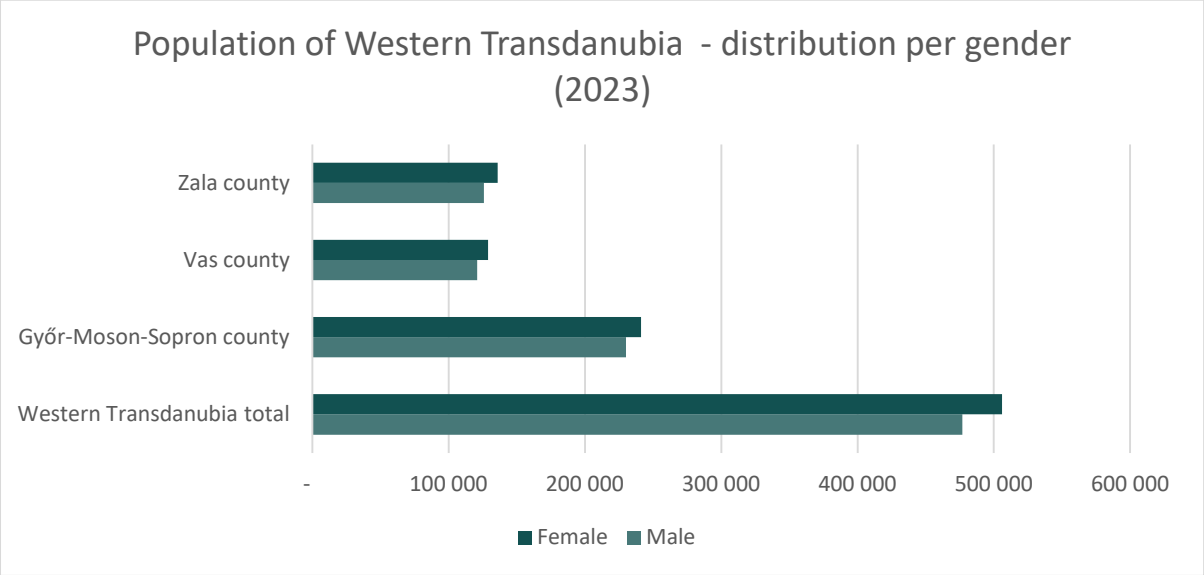
Population - distribution per gender

The region's population represents 10% of the country's population. Győr, the centre of Western Transdanubia, is the most populous city in the region (130,000 inhabitants), followed by Szombathely (78,000 inhabitants), Sopron (62,000 inhabitants) and Zalaegerszeg (58,000 inhabitants).



Source: https://www.ksh.hu/stadat_files/nep/hu/nep0034.html

Age structure per gender:

Western Transdanubia is characterised by a rapidly ageing population, with the ageing index for the region increasing from 124.6 in 2012 to 152 in 2023. In 2023, the largest part of the population, 56%, was the 26-64 age group, followed by the over-65 age group with 19.6%, then 10.8% by the 15-25-year-olds, and the 0-14 age group accounted for the remaining 14%.

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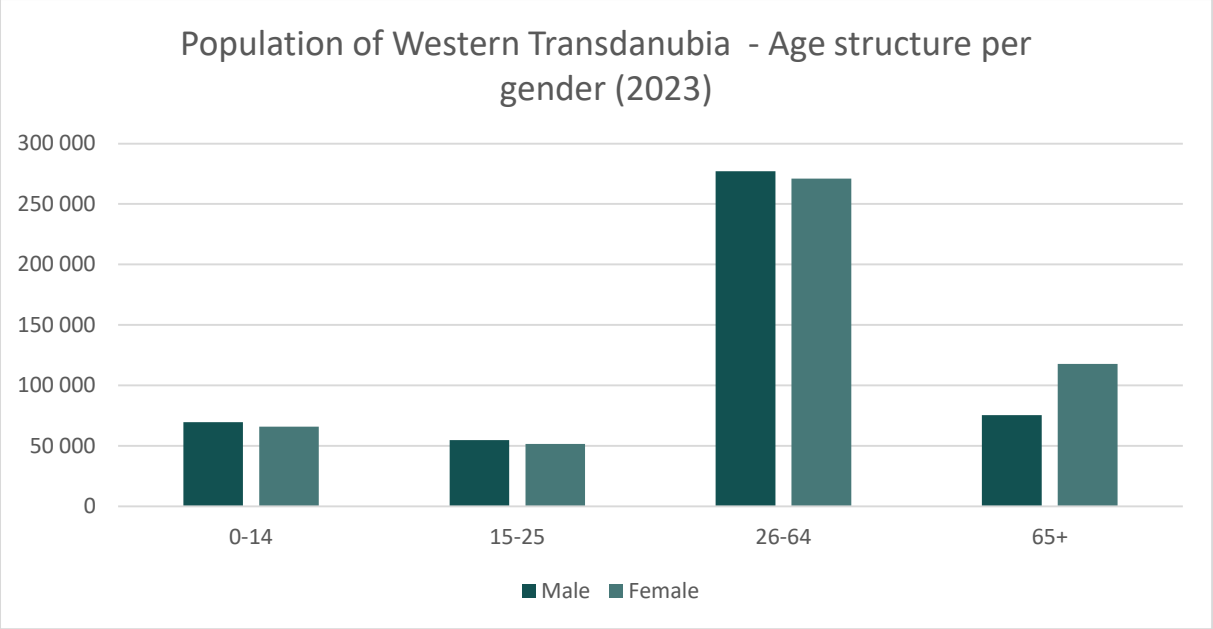

Source: https://www.ksh.hu/interaktiv/korfak/terulet.html

Educational level per gender

If we compare data for the Western Transdanubia region by educational attainment in 2011 and 2022, we can see that in 2022, a significant number of individuals were reported to have completed secondary school without graduation but with a vocational diploma, a significant increase compared to 2011. A shift in the distribution of educational attainment can be seen, due to the government's intention to attract more young people into vocational training where there is a significant shortage of skilled labour.

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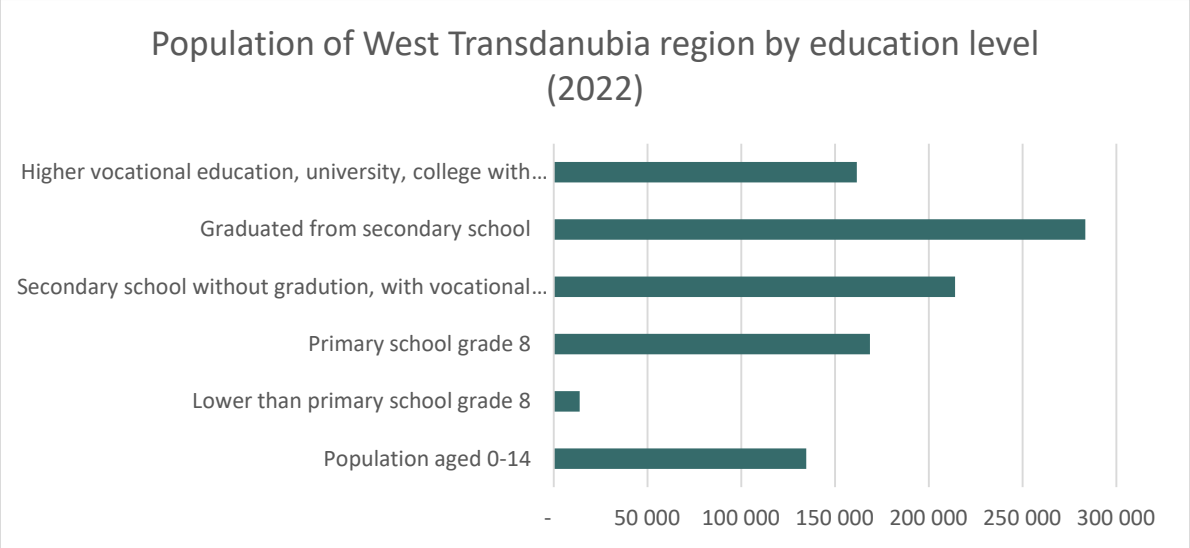
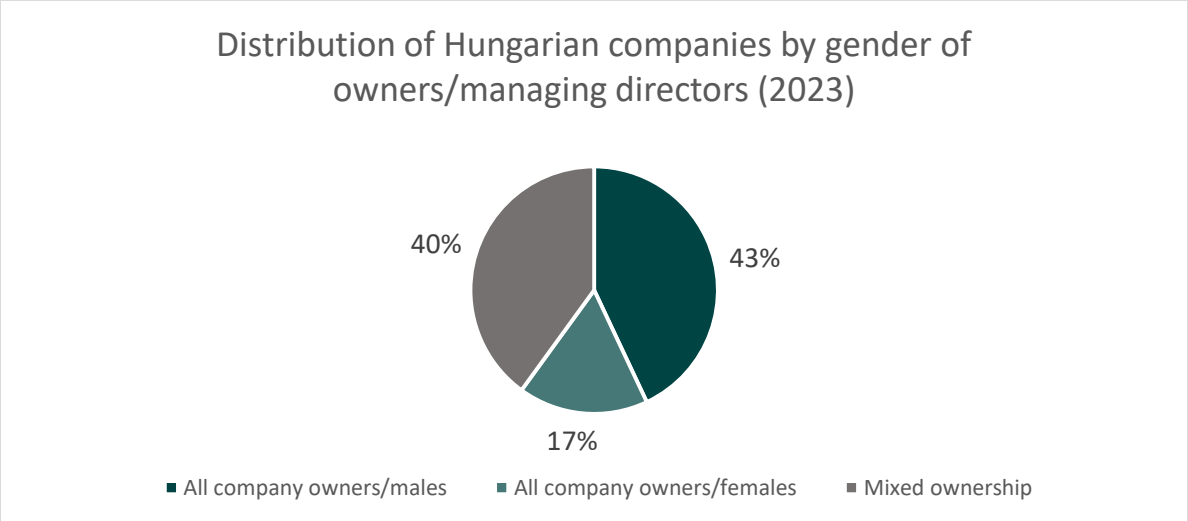


Source: https://statinfo.ksh.hu/Statinfo/haViewer.jsp

The analysis of distribution of Hungarian companies by gender indicates that a significant portion of companies in Hungary have male-only leadership, accounting for 43% of the total. Female-only leadership represents a smaller share at 17%. The most notable aspect is the substantial proportion of companies with mixed-gender leadership, comprising 40% of the total. This suggests a trend towards greater gender diversity in leadership roles within Hungarian companies, which can have implications for workplace culture, decision-making processes, and overall business performance. However, despite this progress, there may still be room for improvement in achieving gender parity and fostering inclusive leadership environments.



Source:
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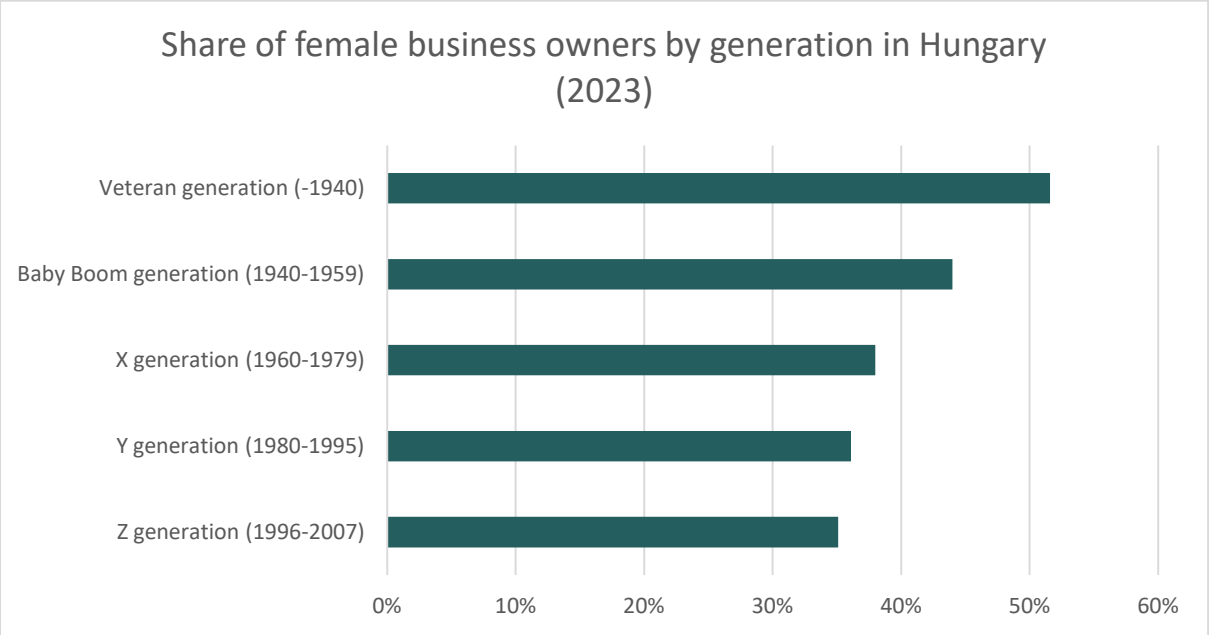
The next figure represents the percentage of female business owners across different generations in Hungary. Interestingly, it shows a decreasing trend in the proportion of female business owners as the generations progress from the Veteran generation to the Z generation. The Veteran generation has the highest share of female business owners at 52%, while the Z generation has the lowest at 35%. This trend may reflect evolving social and economic dynamics, including changing attitudes towards entrepreneurship among different age groups.



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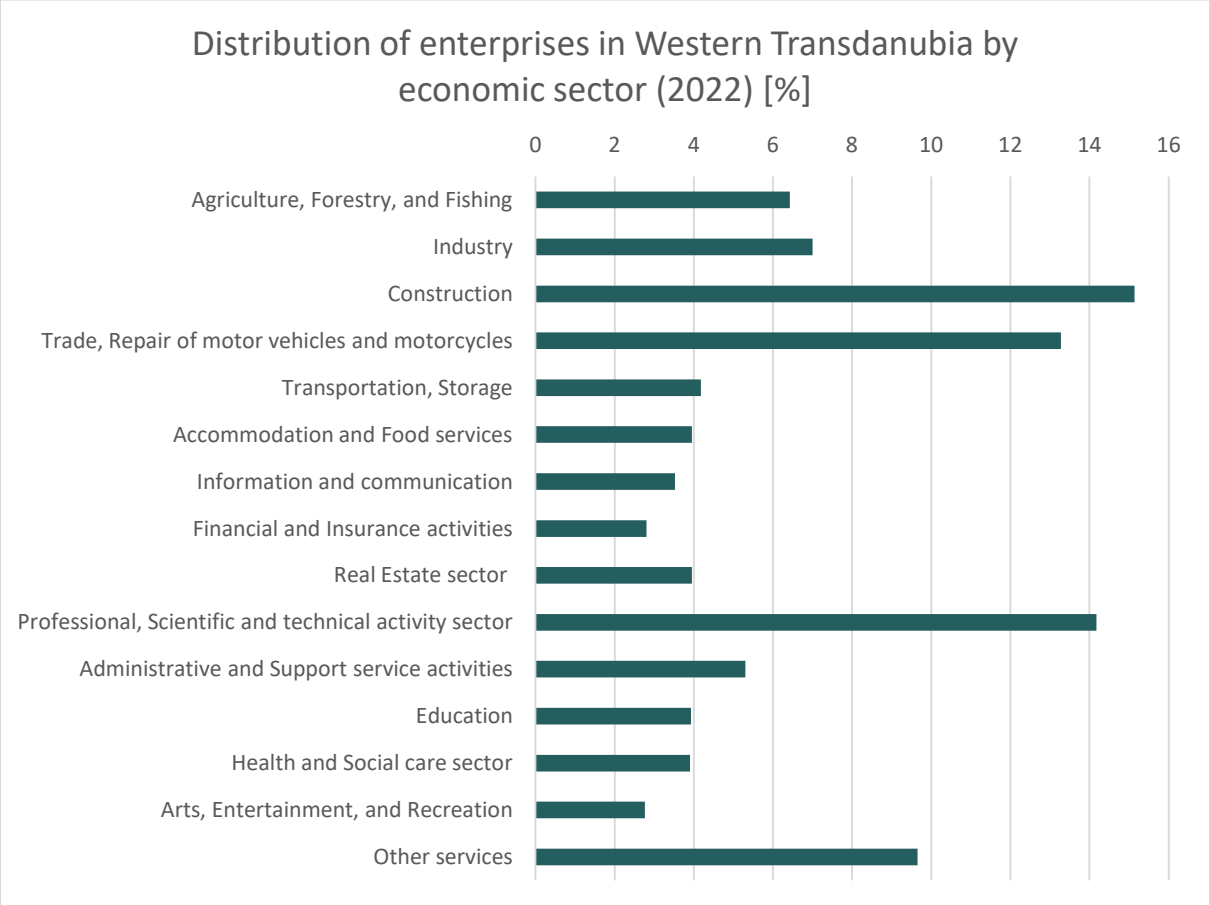
2.2 Female entrepreneurial ecosystem in Hungary

Key characteristics of the ecosystem

The economic landscape of Western Transdanubia in 2022 reflects a diversified array of sectors contributing to its vibrant business environment. Construction emerges as a significant sector with 15 275 enterprises, followed closely by trade, repair of motor vehicles, and motorcycles with 13 396 establishments. Professional, scientific, and technical activities sector also thrives with 14 297 enterprises, indicating a robust presence of knowledge-based industries. Other notable sectors include agriculture, forestry, and fishing, as well as industry, demonstrating the region's diverse economic profile.



Source: https://www.ksh.hu/stadat_files/gsz/hu/gsz0075.html

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Sectoral specification (s3):

Eight national economic priorities have been selected for S3. These are the directions for the national economy that Hungary is focusing on in the implementation of smart specialization. Focusing resources on priorities can strengthen competitiveness. In addition to the national economic priorities, two horizontal priorities have been selected. The horizontal priorities are designed to provide the skills development and business environment needed for smart specialization in the sectors covered by the national economic priorities.

The S3 document builds on the objectives of the three sectoral strategies and the EDPs conducted by the three sectors. The links between the development documents are illustrated in the figure below.

<table>
<tr><td rowspan="3">S3 PRIORITIES</td><td>Agriculture, food industry</td><td>Health</td><td>Digitisation of the economy</td><td>Creative industry</td></tr>
<tr><td>Resource-efficient economy</td><td>Energy, Climate</td><td>Services</td><td>Cutting-edge technologies</td></tr>
<tr><td colspan="2">Public sector innovation</td><td colspan="2">Training, education</td></tr>
<tr><td rowspan="3">RDI STRATEGY</td><td colspan="4">Knowledge production</td></tr>
<tr><td colspan="4">Knowledge flow</td></tr>
<tr><td colspan="4">Knowledge use</td></tr>
<tr><td rowspan="2">SME STRATEGY</td><td colspan="4">Strengthening the value-creating capacity of a high-growth business community</td></tr>
<tr><td colspan="4">Providing a predictable framework for the entire SME sector</td></tr>
<tr><td rowspan="2">DIGITISATION STRATEGY</td><td colspan="4">Improving the digital readiness of micro, small and medium-sized enterprises in Hungary</td></tr>
<tr><td colspan="4">Increasing the integration of digital technology in the economy</td></tr>
</table>

In the field of enterprise development, the contribution of the schemes planned to be financed by EU funds in the 2021-2027 programming cycle to improving the productivity of micro, small and medium-sized enterprises is planned along the following three main target groups:

- strengthening companies that are moving up the value chains and have significant market and growth potential
- enabling technology change and organisational renewal for a wide range of businesses, improving the efficiency of our business processes
- implementing targeted development programmes focused on strategic sectors.

Focus sectors with the highest potential for digital and circular transition

In the realm of women entrepreneurship, several sectors hold promising potential for digital and circular transition, offering opportunities for innovation and sustainability:

E-commerce and Digital Retail: Women entrepreneurs can leverage online platforms and digital marketing strategies to establish and scale e-commerce businesses. Embracing circular economy principles, such as eco-friendly packaging and product lifecycle management, can enhance sustainability in the retail sector.

Sustainable Fashion and Apparel: Women-led fashion startups can pioneer sustainable practices by adopting eco-friendly materials, ethical sourcing, and circular business models like clothing rental or resale platforms. Digital technologies like 3D printing and virtual fashion shows offer innovative avenues for sustainable fashion design and marketing.

HealthTech and Wellness: Women entrepreneurs in the health and wellness sector can develop digital health solutions, wearable devices, and telemedicine platforms to promote accessible and personalized healthcare services. Embracing circular economy principles, such as waste reduction and eco-friendly packaging for wellness products, can align with sustainability goals.

Green Beauty and Personal Care: Women entrepreneurs can pioneer sustainable practices in the beauty and personal care industry by offering organic, cruelty-free, and eco-friendly cosmetic products. They can simplify and monitoring the entire service process by implementing a digital costumer journey through an online booking system.

By focusing on these sectors, women entrepreneurs can drive digital innovation while championing circular economy principles, contributing to sustainable economic growth, and fostering female leadership in entrepreneurship.

Key actors of female entrepreneurial ecosystem in Western Transdanubia

Organisation	Activities of the organisation
Women Entrepreneurs Club of Zala county https://zvkik.hu/kamarai-szolgaltatasok/szakmai-klubok-csoportok/noi-vallalkozoi-klub/	The Chamber of Commerce and Industry of Zala County has implemented several successful projects in the past years, in which the participants were women entrepreneurs. The "WOMAN is the chance" and the "Successful Woman of Zala" projects were aimed at increasing the entrepreneurial efficiency of women in Zala County. In 2015, the Zala County Chamber of Commerce and Industry established the Women Entrepreneurs Club. The programs are mainly aimed at active female entrepreneurs, and we would like to involve female managers of businesses that are members of the Chamber. Every quarter, lectures are organized on topics of interest to women (marketing, career-family, lifestyle, fashion).
Women Entrepreneurs Club of Győr-Moson-Sopron county https://gymsmkik.hu/noivallalkozoiklub	The club aims to provide women entrepreneurs with applicable leadership skills and good practices. The club now has 80 members. With the diversity of businesses, the club brings together different age groups of women, so that members can learn from each other's experiences. The Club organizes 15-20 activities a year, including charity, networking, information transfer and cultural experiences.
Vas county – Programs for women entrepreneurs https://vmkik.hu/	The Chamber of Commerce and Industry of Vas County does not have a special club to support women, but they have organized several programs and events on the topic. For example, they have held a dedicated entrepreneurship forum for women, launched a Visa competition for women only, and other programs to support women entrepreneurs.

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Interaction between ecosystem actors and female companies

spHERe – An initiative for the women's community:

spHERe is the newest initiative of StartITup Győr, which was created for girls and women living, working and creating in Győr, with an innovative approach, with the aim to share their knowledge and experiences.

The organisation is the largest startup incubator in the region, supporting 5-10 teams each semester to develop and help them achieve their goals through professional mentoring. Women entrepreneurs in the region have the opportunity to develop their own business ideas and ventures with the support of the partnership.

Financial mechanisms/policy support measures for circular and industrial transition for women, including digital, business and other skills improvement

In West Transdanubia, but also in Hungary there is less emphasis on promoting women entrepreneurs than in Western countries.

In the previous application period, there were a number of opportunities for women entrepreneurs, such as "We help you to start" program. In the framework of the Széchenyi2020 GINOP Operational Programme, a call for proposals has been opened to support young people to become entrepreneurs in the West Transdanubia Region. The application was not specifically targeted at women, but of course they could also benefit from the support.

Currently, there are very limited tenders or other sources of funding available at regional level to support women entrepreneurs.

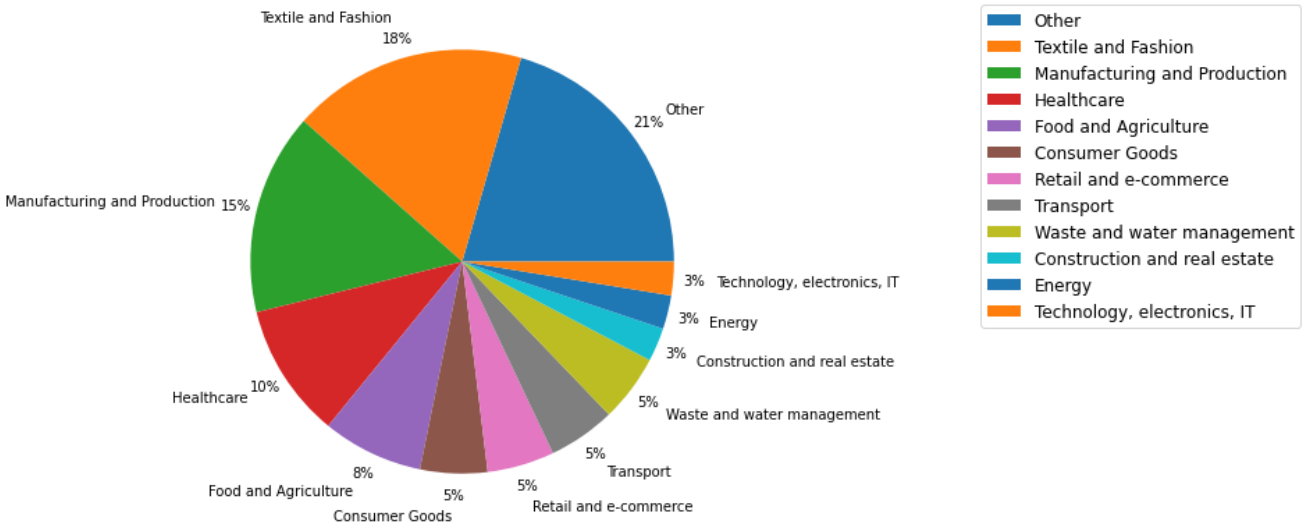
There are smaller initiatives and tenders, such as Women Entrepreneurship Development Program launched by the Chamber of Commerce and Industry of Vas County. The open call is open to women aged between 25 and 35 who want to start a business or have already started one and feel they need to expand their entrepreneurial knowledge and learn about the entrepreneurial practices of others, but have not yet taken the first steps.

Overall, however, there is a strong need to support women entrepreneurs in particular, with more open calls, tenders, professional mentoring services and expanded incubation services at regional as well as national level.

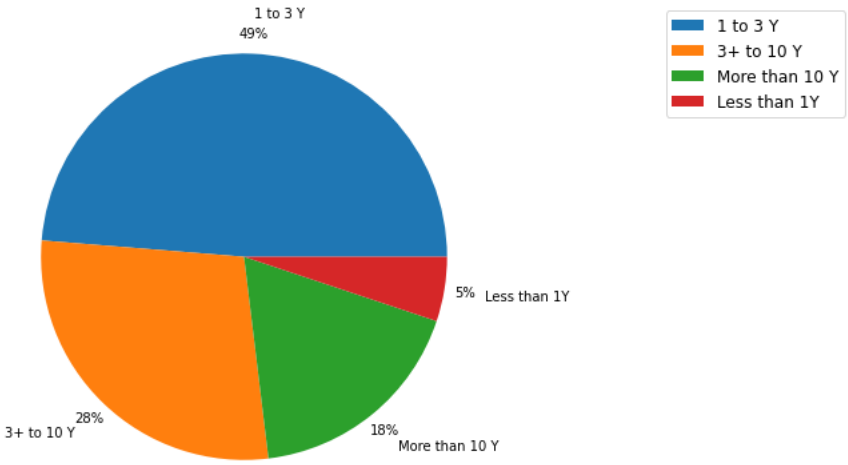
3 Analysis of skills gaps and needs of women entrepreneurs for digital and circular transition

Number of received responses: **39**

Distribution per sectors



Years on the market



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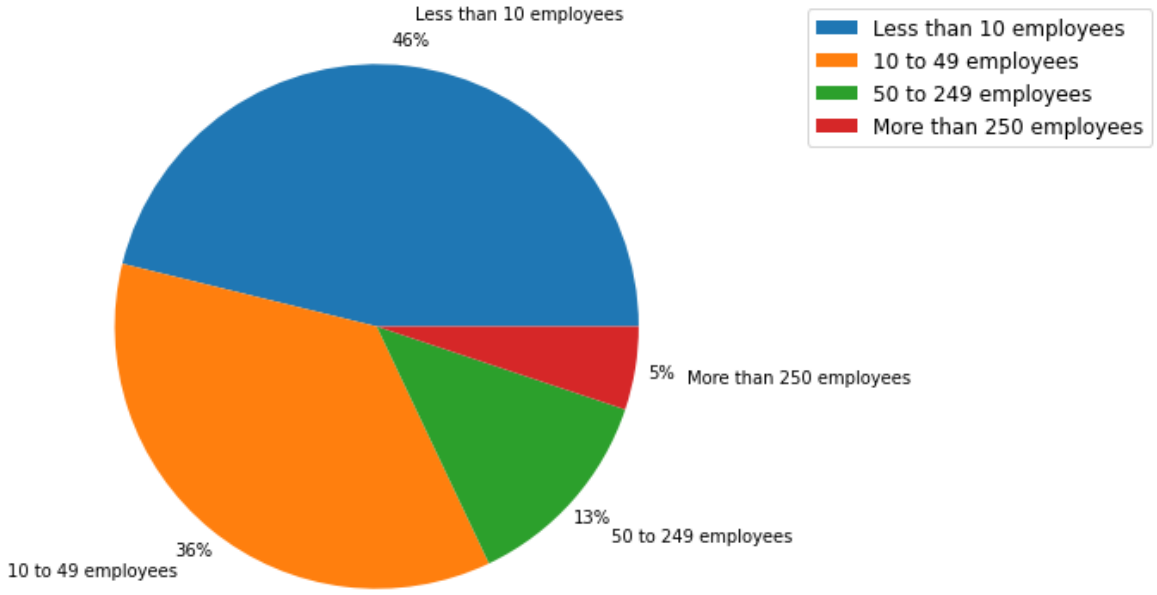
Size of the company



Introduction

Understanding the principles of the circular economy and the widespread adoption of digital technologies are two crucial areas for sustainable economic development and competitiveness. In this analysis, we will examine these areas, with particular focus on female entrepreneurs, industry sectors, and business sizes. Additionally, we will evaluate the importance of knowledge about S3 and its impact on businesses, as well as assess the effects of crises (such as Covid-19 and the conflict in Ukraine) on businesses.

Familiarity and Commitment to the Circular Economy

Understanding the principles of the circular economy and commitment to them are crucial in ensuring the sustainability of the business environment. Businesses need to comprehend the importance of waste reduction, resource efficiency, and environmental protection. The level of awareness and commitment may vary across industries and business sizes. For example, differences among industries may exist in how easily circular economy principles can be applied. Generally known and applied circular economy technologies include waste reduction, product recycling, and the use of renewable energy sources.

Application of Circular Economy Technologies/Models

The application of circular economy technologies and models is crucial for sustainable economic development. These technologies and models enable more efficient use of

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natural resources and reduction of waste. However, businesses often face challenges in the practical application of circular economy principles. This may partly be due to technological advancement and market environment, as well as the lack of internal skills and resources within businesses.

Type of Applied Practices and Ranking of Main Motivational Factors

Ranking the types of applied practices and main motivational factors can help understand what motivates businesses to introduce and develop sustainable practices. Sustainable practices may include energy-efficient investments, waste reduction initiatives, and recycling programs. The motivation of businesses can be influenced by various factors, such as regulatory requirements, market trends, and business advantages.

Challenges Faced by Female Entrepreneurs

Female entrepreneurs often face specific challenges in the areas of digital technologies and innovation. These may include access barriers, lack of technological knowledge, and difficulties in transitioning to Industry 4.0. Support and education may be important for female entrepreneurs to harness the opportunities offered by digital technologies.

Training Needs – Ranking of Topics

Ranking the training needs of businesses can help in the targeted development of educational programs and support measures. Businesses often feel the need for the development of digital skills and understanding of sustainable practices. It is important for educational programs and support measures to adapt to the unique needs and challenges of businesses.

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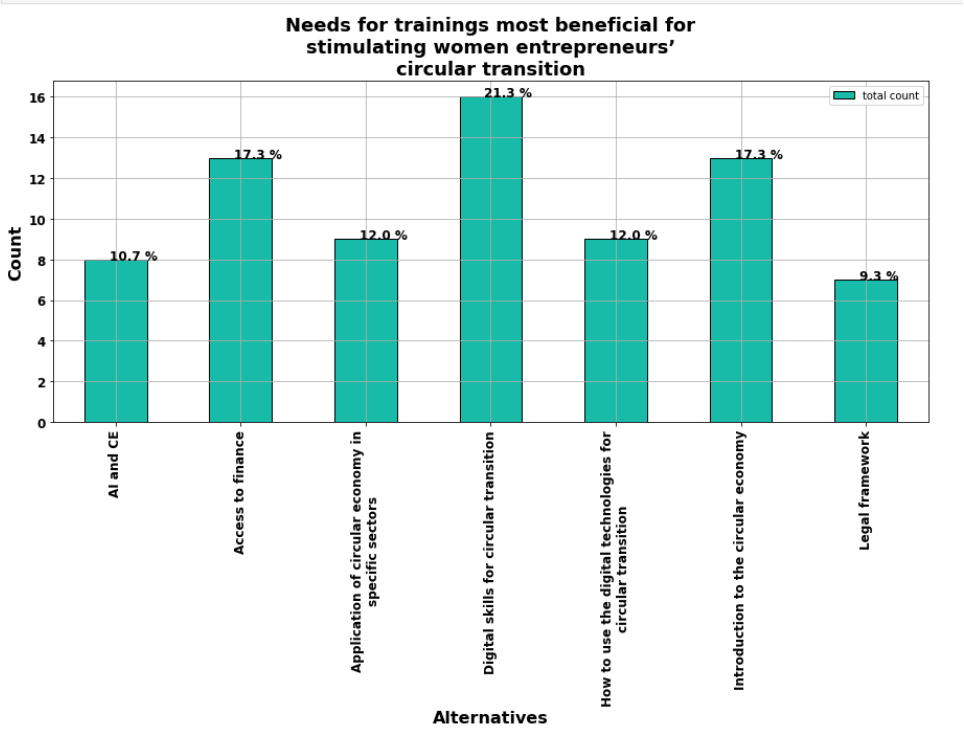

Expected Support Types for Business Circular Transformation

Businesses may require various types of support to promote circular transformation. These may include financial support, technical advice, and networking opportunities. Support programs should encourage and support the introduction and development of sustainable practices.

Awareness of S3 among Businesses and Its Impact

Knowledge of S3 is important for businesses, as it can help in shaping innovation strategies and business decisions. Businesses that align with the priorities of S3 may be more competitive and better able to exploit new market opportunities. Additionally, compliance with S3 can have a positive impact on business performance and long-term sustainability.

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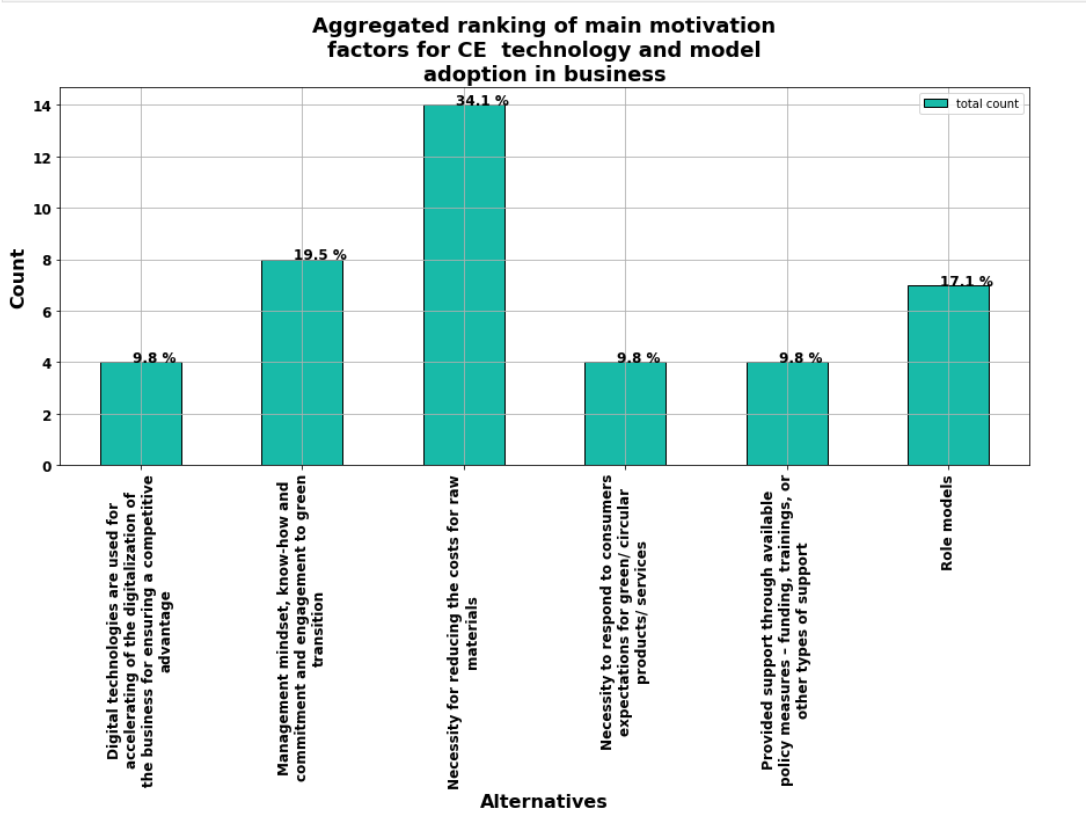

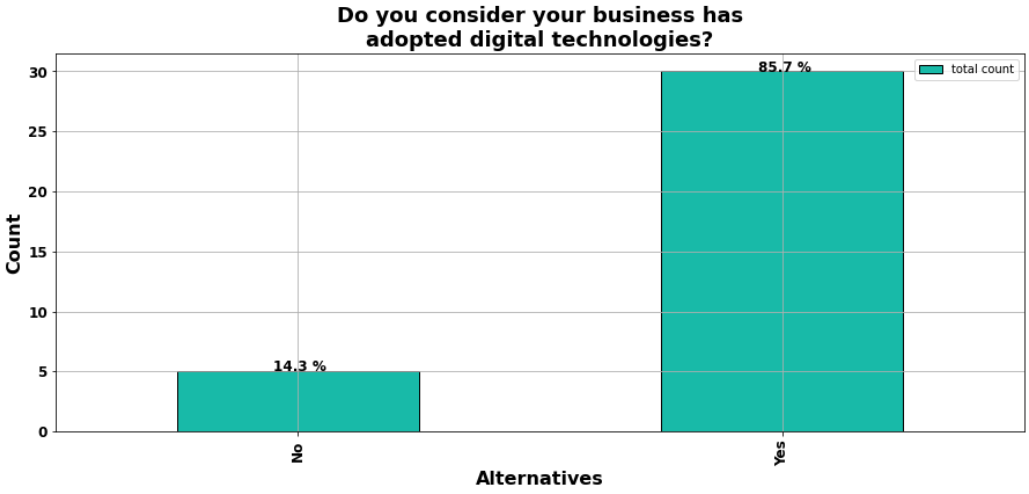

Evaluation of Business Resilience to Crises

Crises, such as Covid-19 and the conflict in Ukraine, can have significant impacts on businesses. Responding to crises and increasing resilience are crucial for the survival and growth of businesses. Support provided during crises can offer businesses opportunities for rethinking and innovation. The covid19 epidemic and the conflict in Ukraine have made life difficult for many Hungarian women entrepreneurs, and

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continue to do so today. It has made many businesses impossible and many women have had to look for new jobs. Fortunately, there are also examples where these difficult times have not been able to cause lasting damage or where their economic situation has recovered.

4 Successful women entrepreneurs

Interview with Nóra Hagara-Nagy, founder of Seed Bonbon Handmade

The interview was conducted with a successful female entrepreneur, Seed Bonbon Handmade, who started her business as a sole trader in 2016 and then set up a two-person limited company with her mother in 2020. The business is based on the recycling of office waste paper, handcrafting products from chemical-free seeds. They sell to both residential and business customers and offer sustainable alternative gifts, mainly as promotional gifts for companies.

The entrepreneur himself is a multi-faceted personality, having graduated as a Hungarian philologist and secondary school teacher, and then worked as a journalist-editor-blogger. He later trained as an expert in eco-management and ecotourism before starting his own business. The company is based on sustainability and environmental protection, which is achieved by recycling office waste paper, using renewable energy and low-energy production.

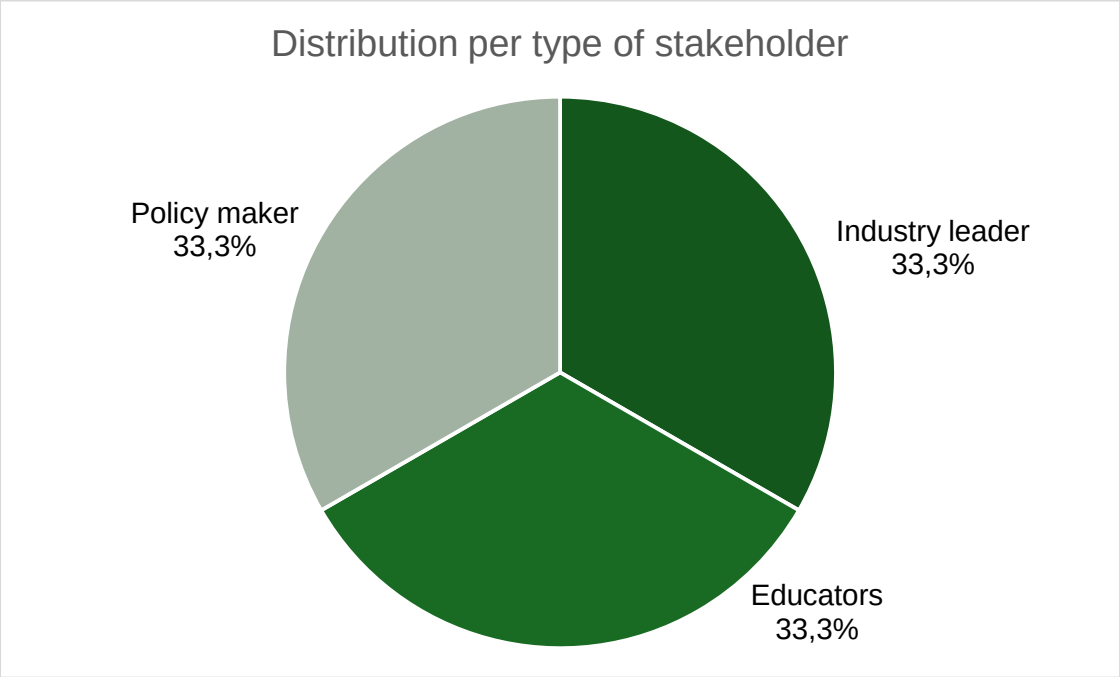
"Our business operates using discarded office paper waste, with the involvement of a foundation employing people with disabilities. The corporate orders for seed chocolates are fulfilled by the employees of the Alba Mentor Foundation in Székesfehérvár. The seed chocolates, when planted, decompose entirely and are reborn as live plants. Our fundamental principle is to be as environmentally friendly and least impactful as possible. Our office is powered by 100% renewable energy, operating in a green area, close to nature, with minimal energy consumption. Our products decompose completely, essentially being recycled back into nature. *Additionally, when it comes to packaging, we regularly reuse boxes and fillers sent to us and received from others, which are then reused in our packaging, thus undergoing multiple cycles of use. Our energy consumption is low; we utilize renewable energy for hot water supply during spring and autumn (via solar collectors) and cover 100% of our electricity needs with*

solar panels. Waste is sorted and collected separately, aiming to produce as little waste as possible (our office composts on-site, we use recycled paper, print minimally, clean with eco-friendly chemicals, invoice digitally, etc.).”

The breakthrough and success for the business came when it was awarded the Ozone Green Award, which came after the business achieved a significant turnover during the upcoming Christmas season. The business is actively adopting circular economy elements and digital practices such as electronic billing and renewable energy.

During the interview, the challenges and needs of women entrepreneurs in the circular economy and digital transition were raised and the interviewee stressed the importance of access to information, adaptation to legislative changes and expert advice. He stressed the importance of public support and suggested mentoring and conferences on the subject.

4 Stakeholder Perspectives



Government: Adrienn Bokányi

Councillor for Economic Affairs of Municipality of Szombathely

The interview revealed that there are significant gaps for women entrepreneurs in the S3 strategy and in the support for the Industry 4.0 transition. At the local level, for example in Szombathely, there is no specific policy or support system for women entrepreneurs, putting them at a disadvantage compared to national policy. In addition, there is a lack of targeted programmes and measures to help women entrepreneurs to successfully enter the circular economy. The interview suggests the introduction of state tax incentives and micro-credits at favourable interest rates, as well as the development of training programmes and mentoring schemes to support women entrepreneurs. It would be important to strengthen cooperation between municipalities and chambers of commerce and industry, and to develop funding sources and funds to support women entrepreneurs. These measures could help to increase the competitiveness and sustainability of women entrepreneurs in the new economic environment.

Community, Industry: Lilla Bartuszek

FKK Hungary (Centre for Sustainable Communities) Project Coordinator

Lilla Bartuszek's interview reveals that her organisation focuses on the development of sustainable cities and communities. The foundation and the company operate in two separate but closely related fields: one is awareness raising and policy lobbying, the other is consultancy and portfolio management. The circular economy plays an important role in their activities, with a specific chapter dedicated to it in the context of municipal sustainability. According to Lilla, women entrepreneurs bring more innovative thinking, which can foster sustainability and innovation. Policy makers should pay more attention to women entrepreneurs and support them in maintaining a work-life balance. Specific skills are needed on the part of women entrepreneurs, such as systematic thinking and strong empathy. Training programmes should start from the bottom up and specific centres for women could be set up for knowledge transfer and skills development. Compocity can serve as an example of a company that has successfully introduced circular economy practices.

Academy: University of Pannonia

The University of Pannonia, Faculty of Economics and Business Administration is a recognised teaching and research institution with a mission to serve the economic and social development of the region. The Faculty offers a diverse portfolio of full-time and part-time courses in Hungarian and English. Its funding is based on public grants,

research projects and tuition fees. Its main research areas include territorial competitiveness, gamification studies, sustainable knowledge and digital economy.

Dr. Nóra Obermayer, Professor and Dean's appointee at the Faculty, has been leading her career as Head of Education since 2016. Her responsibilities include the development and management of the faculty strategy, career development of faculty members and the expansion of the professional development portfolio. Dr Katalin Lőrincz, Associate Professor and Associate Dean General, has been working full-time at the University since 2013. Her main responsibilities include the implementation of the faculty strategy, the management of economic activities and research and teaching in the field of tourism.

Both interviewees are familiar with the concepts of digitalisation and industry 4.0 and are involved in these areas in their professional work. The transformative effects of digitalisation and Industry 4.0 are also felt in manufacturing and tourism. Digital technologies help to increase efficiency and create new jobs, especially in areas where there is a shortage of labour. Concrete initiatives such as 3D printing and digital booking systems are helping to introduce digitalisation and Industry 4.0 into the region's economy.

5 Conclusion

Identifying best practices in skills development for female entrepreneurs and devising measures for transitioning to a circular economy (S3) and Industry 4.0 (I4.0) in Hungary encompasses various areas. Initially, it is essential to assess the current situation through research and analysis to determine the status of female entrepreneurs regarding skill development, S3, and I4.0. These assessments can evaluate their current skills, knowledge, and qualifications, as well as identify gaps in resources and support needed for the transition.

The next step involves developing and implementing training programs tailored for female entrepreneurs in S3 and I4.0 domains. These programs could include general skill-building courses as well as specific technical training such as data management, automation, or sustainable production. It's crucial for these programs not only to impart theoretical knowledge but also provide practical experiences.

Establishing mentorship programs for female entrepreneurs to assist in transitioning to S3 and I4.0 is another critical measure. Mentors, with their experience and networks, can help female entrepreneurs set goals, develop plans, and navigate challenges. Additionally, fostering networks that facilitate learning and knowledge exchange among female entrepreneurs is essential.

Ensuring access to funding opportunities and financial support for female entrepreneurs in their S3 and I4.0 activities is also paramount. Support could come in the form of direct financial assistance, mentorship, training opportunities, or infrastructure support.

Conducting awareness campaigns and communication programs to emphasize the importance and benefits of transitioning to S3 and I4.0 is necessary. Female entrepreneurs should be educated about the advantages of new technologies and business models and how to successfully apply them in their ventures.

Finally, government-level interventions are crucial. Establishing a regulatory environment supportive of female entrepreneurs in their S3 and I4.0 activities is necessary. This could include tax incentives, administrative simplifications, or targeted policy measures.

The culmination of these recommendations and measures can contribute to the skill development of female entrepreneurs and their successful transition to S3 and I4.0 in Hungary. It's essential for these initiatives to be coordinated, long-term, and considerate of the unique needs and challenges faced by female entrepreneurs.

Annexes

Survey Questionnaire: https://www.surveymonkey.com/r/S5CC8RV

List of Interviewees

1. Adrienn Bokányi
2. Dr Katalin Lőrincz
3. Dr Nóra Obermayer
4. Lilla Bartuszek
5. Nóra Hagara-Nagy

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INTERVIEW CONSENT FORM

I, Adrienn Bokányi hereby confirm my willingness to participate in an interview conducted on behalf of the Danube Transnational Programme financed project titled "Boosting digital and industrial capacity for sustainable circular transition of women entrepreneurs in the Danube Region". I understand that this interview will focus on my experiences in the transition to Industry 4.0 (i4.0) and Sustainable Smart Specialization Strategies (s3), as well as my insights on circular economy and women entrepreneurship.

I consent to sharing my expertise and providing recommendations related to the aforementioned issues, particularly in the context of Hungary. I understand that my participation in this interview is voluntary, and I have the right to withdraw at any time without consequences. I acknowledge that the information I provide will be used for research purposes only and will be treated confidentially.

I have had the opportunity to ask questions and clarify any concerns regarding this interview. I understand the purpose and scope of the research project and agree to participate voluntarily.

Participant's Signature: 

Date: 17. 05. 2024

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INTERVIEW CONSENT FORM

I, Dr. Katalin LORINCZ, hereby confirm my willingness to participate in an interview conducted on behalf of the Danube Transnational Programme financed project titled "Boosting digital and industrial capacity for sustainable circular transition of women entrepreneurs in the Danube Region". I understand that this interview will focus on my experiences in the transition to Industry 4.0 (i4.0) and Sustainable Smart Specialization Strategies (s3), as well as my insights on circular economy and women entrepreneurship.

I consent to sharing my expertise and providing recommendations related to the aforementioned issues, particularly in the context of Hungary. I understand that my participation in this interview is voluntary, and I have the right to withdraw at any time without consequences. I acknowledge that the information I provide will be used for research purposes only and will be treated confidentially.

I have had the opportunity to ask questions and clarify any concerns regarding this interview. I understand the purpose and scope of the research project and agree to participate voluntarily.

Participant's Signature: _____

Date: 22 May, 2024

INTERVIEW CONSENT FORM

I, Nóra Dr. Obermayer, hereby confirm my willingness to participate in an interview conducted on behalf of the Danube Transnational Programme financed project titled "Boosting digital and industrial capacity for sustainable circular transition of women entrepreneurs in the Danube Region". I understand that this interview will focus on my experiences in the transition to Industry 4.0 (i4.0) and Sustainable Smart Specialization Strategies (s3), as well as my insights on circular economy and women entrepreneurship.

I consent to sharing my expertise and providing recommendations related to the aforementioned issues, particularly in the context of Hungary. I understand that my participation in this interview is voluntary, and I have the right to withdraw at any time without consequences. I acknowledge that the information I provide will be used for research purposes only and will be treated confidentially.

I have had the opportunity to ask questions and clarify any concerns regarding this interview. I understand the purpose and scope of the research project and agree to participate voluntarily.

Participant's Signature: _____

Date: 22 May 2024

INTERVIEW CONSENT FORM

I, Lilla Bartuszek hereby confirm my willingness to participate in an interview conducted on behalf of the Danube Transnational Programme financed project titled "Boosting digital and industrial capacity for sustainable circular transition of women entrepreneurs in the Danube Region". I understand that this interview will focus on my experiences in the transition to Industry 4.0 (i4.0) and Sustainable Smart Specialization Strategies (s3), as well as my insights on circular economy and women entrepreneurship.

I consent to sharing my expertise and providing recommendations related to the aforementioned issues, particularly in the context of Hungary. I understand that my participation in this interview is voluntary, and I have the right to withdraw at any time without consequences. I acknowledge that the information I provide will be used for research purposes only and will be treated confidentially.

I have had the opportunity to ask questions and clarify any concerns regarding this interview. I understand the purpose and scope of the research project and agree to participate voluntarily.

Participant's Signature: _____

Date: 05.06.2024

INTERVIEW CONSENT FORM

I, Nóra Hagara-Nagy, hereby confirm my willingness to participate in an interview conducted on behalf of the Danube Transnational Programme financed project titled "Boosting digital and industrial capacity for sustainable circular transition of women entrepreneurs in the Danube Region". I understand that this interview will focus on my experiences in the transition to Industry 4.0 (i4.0) and Sustainable Smart Specialization Strategies (s3), as well as my insights on circular economy and women entrepreneurship.

I consent to sharing my expertise and providing recommendations related to the aforementioned issues, particularly in the context of Hungary. I understand that my participation in this interview is voluntary, and I have the right to withdraw at any time without consequences. I acknowledge that the information I provide will be used for research purposes only and will be treated confidentially.

I have had the opportunity to ask questions and clarify any concerns regarding this interview. I understand the purpose and scope of the research project and agree to participate voluntarily.

Participant's Signature: Hagara-Nagy Nóra

Date: 06.06.2024

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