Mencora S/EAM



TABLE OF CONTENTS

Introduction to Mentoras I EAM		
Chapter 1. Background, statistics and figures	5	
Chapter 2. Evidence	7	
2.1. National Context	7	
2.2. European Scope	10	
Chapter 3. Success Stories from migrant women in the STEAM sector	13	
3.1. Background information of participants	16	
Chapter 4. Main lessons learnt during focus groups	16	
4.2. Opinions about the situation of migrant women in the STEAM Sector	20	
4.3. Barriers to finding employment in the STEAM Sector	21	
4.4. Training expectations and needs for migrant women in STEAM	27	
4.5. Role of stakeholders in the employment of migrant women in STEAM	29	
Chapter 5: Initiatives	32	
Chapter 6. Conclusions and recommendations	40	
References	43	











LIST OF TABLES

Table 1. Participants' profile	13
Table 2. Participants' countries	14
Table 3. Participants' challenges	14
Table 4. Number of participants by country	16
Table 5. The origins of participants by country	16
Table 6. Backgrounds and experiences of participants by country	17
Table 7. The status of participants by country and in total	18
Table 8. The situations of highly skilled migrant women in STEAM by country	20
Table 9. Reasons and proposed solutions for the barriers to find employment in STEAM	25
Table 10. The areas of training contents	28
Table 11. Initiatives per countries	33
Table 12. Most relevant initiatives	37
Table 13. Other initiatives collected	39

LIST OF FIGURES

Figure 1. Comparison of international migrants in partners' countries	
among international, 2019.	6
Figure 2. Comparison of females in partners' countries among internationals, 2019	6
Figure 3. Comparative Data-Employment outcomes of women born outside EU	6
Figure 4. Proportion of women scientists and engineers in the EU, 2017.	6
Figure 5. Background of participants	13
Figure 6. Countries of origin	14
Figure 7. The STEAM fields amongst participants in the focus groups	
by country and in total	18
Figure 8. The status of participants by country	19
Figure 9. Number of participants by country	32
Figure 10. Initiatives in the European territory	32
Figure 11. Most relevant initiatives	38
Figure 12. Initiatives in non-European territory	39



A GUIDE FOR POLICYMAKERS

BOOSTING FEMALE MIGRANTS'

EMPLOYABILITY IN THE STEAM SECTOR

Dear reader,

This Guide has been created for a simple reason: to support stakeholders with a practical guide on the situation of highly skilled migrant women with a STEAM (Science, Technology, Engineering, Arts, Mathematics) background. These pages will also be invaluable to overview the employability opportunities highly skilled migrant women have and more specifically migrant women in STEAM.

The MentoraSTEAM Project is designed to empower these women by building their self-confidence, employability and transferable skills in order to foster their social inclusion and boost their employability.

This Guide is made for policymakers, support organisations, stakeholders with essential information about deskilling, mismatch underemployment, transferability of skills and these phenomena's impact on the productivity of the host countries.

In this Guide, you will find recommendations gathered by project partners from 24 testimonials of migrant women, 20 case studies and 20 European initiatives and 40 national initiatives (10 across each partner country: the UK, Finland, Italy and Spain) available to support migrant women in STEAM or related fields such as migration and/or gender.

The MentoraSTEAM project partners are Inova Consultancy (United Kingdom), VAMK (Finland), MEET Digital Culture Center (Italy) and INCOMA (Spain).

The European Commission support for the production of this publication does not constitute endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein. Project reference number 2020-1-UK01-KA202-078834.



INTRODUCTION TO

MENTORASTEAM

Migrant women continue to face difficulties and challenges in their professional careers. Highly skilled migrant women tend to face a double disadvantage as a result of discrimination towards women particularly those from a migrant background especially in non-traditional sectors such as in Science, Engineering, Arts, Technology and Mathematics (STEAM). As a migrant, further barriers of underemployment and deskilling might occur. Migrants are often in positions they are overgualified for. It has been found that migrants tend to possess higher educational attainment compared with their native-born peers in many different countries (Eurostat, 2018). Yet, they do not seem to be accepted for positions that match their competencies.

Women who are looking for employment or are employed, in the STEAM sector can face further challenges in their professional journey, especially as a highly skilled migrant and as a minority in a male-dominated profession. Highly skilled migrant women face challenges and barriers in areas such as the lack of recognition of their degrees. In 2017, 59% of men and 41% of women were scientists and engineers in the EU (Eurostat, 2019). Women made up a minority of all ICT specialists working in the European Union, at 17.2% (Eurostat, 2018).

The MentoraSTEAM project aims to develop highly skilled migrant women's self-efficacy, confidence and soft skills in the STEAM sector in order to boost employability. There is a need to tackle this issue transnationally as women are underrepresented and are subjected to a gender gap globally (World Economic Forum, 2020). Furthermore, migrant women tend to have lower self-efficacy, especially in the STEAM sector (Tellhed et al, 2016; Gjersoe, 2018).

Research has shown that initiatives to boost women's confidence are important as it can encourage them to pursue a career in STEAM or stay in the field (Perez-Felkner, 2018). Therefore, the partner organisations of this project work collaboratively to tackle the issues migrant women in STEAM may face and to inform stakeholders of the challenges this target group currently faces.

On the project website more can be found about MentoraSTEAM:

www.mentorasteam.eu





CHAPTER 1. BACKGROUND STATISTICS AND FIGURES

FINLAND

Finland has a different scenery in terms of hosting migrants, with numbers increasing drastically from 2010 onwards, coinciding with the migration crisis as a result of various conflicts in Africa and Asia, the numbers rose from years prior to 383.1 thousand migrants in the country (UNDESA, 2019), although still lower percentage compared to both Italy and Spain.

SPAIN

Regarding the International Migrant Stock of the Department of Economic and Social Affairs of the United Nations, the increase of reception of the migrant population could be confirmed. In 1990, the International Population in Spain was 821.5 thousand; it raised to 6104.2 in 2019 (UNDESA, 2019).

According to statistics, the percentage of females among international migrants has remained in the same line.

ITALY

The scope of Italy is quite similar to Spain, and both have significant differences with Finland and the United Kingdom. Italy had in 1990 more migrant population than Spain did in that decade: 1.482.2 thousand persons. This number has increased during the years as its Mediterranean partner did, and in 2019 Italy reached 6.273.7 thousand migrants (UNDESA, 2019). Female migrant arrivals have kept the same line.

UNITED KINGDOM

The United Kingdom has overall the greater numbers, although it has traditionally been a more common destiny to migrants than the previous countries mentioned, the numbers have marginally increased in recent years. By 2019, there are 9552.1 thousand migrants in the UK (UNDESA, 2019).



According to the integration of migrant women in the labour migrant, the chart below indicates that migrant women have a double disadvantage; they face challenges and barriers as both migrants and women, and they are more likely to be over-qualified to their jobs. Regarding EUROSTAT (2019), in 2017, 59% of men and 41% of women were scientists and engineers in the EU. However, men were particularly overrepresented in manufacturing at 79%, while this ratio of women was 21%.

In the chapter dedicated to Focus Groups, it will be explained that the causes of this over-qualification are often not only cultural roles where women have caring responsabilities but also the lack of systems to validate their qualifications and skills.

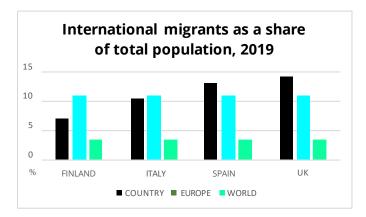


Figure 1. Comparison of international migrants in partners' countries among international, 2019.

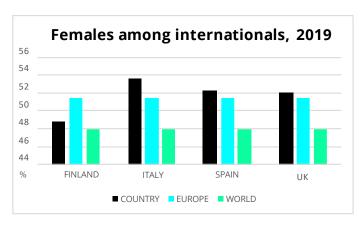


Figure 2. Comparison of females in partners' countries among internationals, 2019

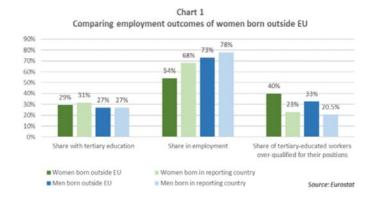


Figure 3. Comparative Data-Employment outcomes of women born outside EU

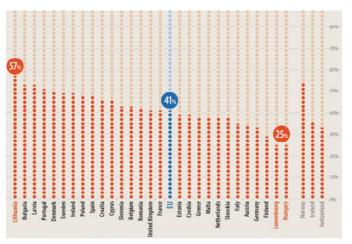


Figure 4. Proportion of women scientists and engineers in the EU, 2017.



CHAPTER 2. **EVIDENCE**

1. NATIONAL CONTEXTS

FINLAND

The issues that relate to migrants, in general, are relatively new in Finland (Koskela 2010, 57). This may justify the insufficient and undiversified initiatives that have been implemented within the nation. A study by Heino & Jauhiainen (2020) indicates that migrants fear the increasing juxtaposition of immigrants and natives, involving racist behaviours and direct actions against immigrants.

The success of an anti-immigration political party has additionally influenced the discussions concerning the integration of the foreign-born population in different municipalities (Keskinen 2016, 357). It is also revealed that the attitudes of decision-makers towards immigrants seem to be negative or ignorant, particularly in semi-urban municipalities. These attitudes may also result in an avoidance of migration matters and an unwillingness to accept refugees (Heino & Jauhiainen, 2020). In Finland, supporting immigration is frequently misunderstood as supporting an inflow of immigrants and asylum seekers (Mattila & Björklund, 2013). Misconceptions furthermore connect to immigrants' cultural threats and the way that immigrants, especially asylum seekers, are portrayed in mainstream media (Herda, 2015).



ITALY

In Italy, only 18.9% of female graduates chose STEM (Science, Technology, Engineering and Mathematics) disciplines. Although women graduate on average with higher grades than their male counterparts, once they enter the workforce, they do not achieve the same results, in terms of employment and pay.

Among the Italian regions, Lombardy is home to the most students attending STEM faculties (17%), followed by Lazio and Campania. Over the past five years, the number of men choosing a STEM faculty has grown (7.8%) faster than that of women (6.9%).



SPANISH

The foreign population in Spain has become more feminised in recent decades, creating a niche of research into the jobs they acquire on arrival in the host country (Ministry of Equality, Women's Institute, 2009). Many international and Spanish studies confirm the over-qualification of many migrant women and their difficulty in finding new employment paths and moving between sectors.

ACCEM, a Spanish NGO, reports that many migrant women frequently drop in social status when they migrate, as the sectors to which they have access in the labour market are lower than their level of education and qualifications. Up to 22% of migrant women in Spain who have a university education work below their qualification level, while only 2% of Spanish women with a university education are employed below their qualification level. This discrimination is still present today, as we will see throughout the guide according to the participants' testimonials.





UNITED KINGDOM

Much of the Department for Business, Innovations and Skills (BIS) work to promote STEM careers is focussed on generally promoting those careers, rather than focusing on diversity and inclusion of groups. BIS allocates £13 million every year to increase public engagement with science. However, there are several measures in place that are targeted at increasing diversity and are specifically aimed at increasing female interest in STEM careers and subjects.

In response to a January 2016 debate on feminism in the school curriculum, Schools Minister Nick Gibb set out the measures the Government was taking to encourage girls to study STEM subjects. He drew attention to the following:

- ▶ Government funding for the Stimulating Physics Network and Further Mathematics Support Programme, with a particular focus on engaging more girls.
- ▼ Government funding for Engineering UK to deliver the Big Bang Near Me activities, a local version of the Big Bang Fair. In 2015, this reached 100,000 pupils, half of whom were girls.
- ▼ Investing £67 million in training teachers in maths and physics.

- ▶ The STEM ambassadors' programme: 40 percent of the 31,000 STEM ambassadors were women, he noted.
- ➢ Backing the Your Life campaign to increase significantly the numbers taking A-level physics and maths, particularly girls. This is a digital campaign to demonstrate the range of opportunities that maths and science can lead to.



2. EUROPEAN SCOPE

What European Organisations and NGOs Show...

UN-WOMEN (2020) posted in their digital library "Visualizing the data: Women's representation in society". This blog entry contained data that we will see throughout the chapters of this Guide: that women continue being underrepresented, not only in politics but also in labour fields. This imbalance is far-reaching with negative consequences in their individual lives and also in the well-being of the community and society. In 2019, the Fortune list reached a new record: 33 of the companies on the top 500 ranking of the highest-grossing firms are led by female CEOs. However, these companies are not the companies with the highest turnover; those with the highest turnover are more than 92% led by men (Zillman, 2019).

This data shows that the educational and social improvements that have been made have had an impact (more women have gained access to highly qualified positions) but that they are still insufficient, as the participants will discuss in the following chapters. UN-Women also shows in this report that only 53 of 900 people who have won the Nobel Prize were women. Annual Nobel Prizes recognise intellectual achievement and academic, cultural and scientific advancement. 19 of 53 of the women awarded were from the STEAM sector (The Nobel Foundation, 2019).



What the European Scientific Papers Show...

In 15 years, the number of migrants in Europe increased from 23 million in 1985 to more than 56 million in 2000, making up 7.7% of the European population (United Nations 1998, 1; IOM 2003, 29). However, the growing foreign-born population cannot reflect the complicated and differential impacts of migration in the continent (Berger, Kraal & Penninx 2006). The dramatic increase and shifts of migration have aroused multiple attitudes and reactions in the host countries. On the one hand, government and society initiatives respond positively towards migrants and their integration. This refers to a multitude of inviting, encouraging and effective management and legislation on mobility and diversity. On the other hand, the foreign-born population faces public and political attitudes relating to their restriction, control, prevention and even exclusion.

Migrants are in an association with a variety of challenges and threats to national security and have been a headline in many political agendas. This has resulted in the deployment of the anti-immigration movement, the distorting of migration discussions, the criminalisation of migrants, the societal polarisation, and so forth. The development of those approaches towards migration is based on how European countries have defined themselves in relation to migration (Hearet al 2008, 2-5).



What the Legal Framework in the EU Legislation Sets Out...

There is still a lack of policy focus when it comes to the integration of migrant women. A 2018 briefing paper by the European Court of Auditors pointed out that many EU Member States lack policies specifically concerning female migrants. Out of the 32 responding governments (27 Member States, 4 Belgian regions and Norway), only 7 have such policies in place. A 2018 report by the EU Fundamental Rights Agency (FRA) also confirmed that "across the EU, there is little evidence of action plans and strategies with a particular focus on migrant women or gender issues."



The situation described by a Czech report on gender and migration in 2016 is characteristic of a high proportion of Member States; there have been only minimal efforts in identifying challenges related to the integration of migrant women into society, and key policy documents fail to distinguish between men and women. Discrimination is normally dealt with through anti-discrimination and gender equality legislation, without specific reference to migrant women as a distinct category.

From a European perspective, migrant women-specific integration efforts are marked at least as much by bottom-up, civil society-led responses as by top-down policies and public funding.

The European Union's Strategy and Initiatives for Gender Equality in STEM...

Over the years, the European Commission has developed a regulatory framework on gender equality targeting the labour market and research. The three main objectives are gender equality in careers, gender balance in decision-making bodies and integration of the gender dimension in R&I. Simultaneously, gender equality and mainstreaming are among the priorities of the European Research Area (ERA), while "Article 16 of the Framework Regulation mandates the effective promotion of gender equality and the inclusion of the gender dimension in the R&I content" (Fatourou, Papageorgiou, & Petousi, 2019).



Social Role Models...

Today, social platforms, especially Instagram, are a great showcase to bring visibility to people, in our case migrant women in STEAM.

Debbie Sterling, a Stanford engineering graduate, now an entrepreneur in San Francisco, creates toys that stimulate the creativity and visual-spatial skills of girls between the ages of 5 and 9. Her company is called GoldieBlox and promotes scientific, engineering, and mathematical play among girls that is traditionally confined to the male universe.

Sheryl Sandberg is the chief operating officer of Facebook; she entered the board of directors of the social network. Sandberg thus became the first woman to sit on the board of Facebook and, with her contribution, Facebook began to monetise, deriving its income from advertising and much more.

Deepika Bhardwaj is an Indian journalist, filmmaker, and human rights activist from New Delhi, India. She fights for human rights in India. Bhardwaj highlights the laws made on dowry and domestic violence in India. However, some women have not done justice using the laws.

Women Are Needed in STEM: European Policies and Incentives | April 2019 | Communications of the ACM





CHAPTER 3.

SUCCESS STORIES FROM MIGRANT WOMEN IN THE STEAM SECTOR

The MentoraSTEAM partnership collected 5 case studies in each partner country to analyse the main obstacles highly skilled migrant women face and develop some recommendations that can help combat the gender imbalance in the STEAM sector. In total, 20 case studies were collected from Finland, Italy, Spain, and the United Kingdom. This chapter analyses the collected information without mentioning the participants' names in order to protect their identity and involve them in the research anonymously.

BACKGROUND OF PARTICIPANTS

Each partner organisation collected information from migrant women with a STEAM background. Partner organisations used various methods to obtain the necessary data, such as desk research or interviews.

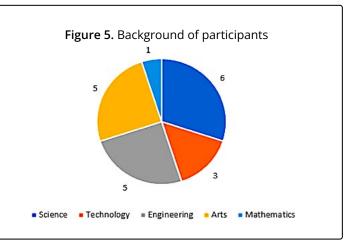


Table 1. Participants' profile

MEET	VAMK	INCOMA	Inova Consultancy
In charge of Digital Transformation in Creative Industries	Nurse	Doctor - Paediatrician	PhD Program Advisor (Computing)
Hydraulic Engineer	Business Intelligence Consultant	Doctor - Paediatrician	Molecular microbiologist
Graphic designer and art director	Chief Marketing Officer with background in chemistry and data solutions	Economist – PhD in the field of gender	Computer Software Engineer
Human rights activist majoring in international relations	Entrepreneur in diversity and inclusion with engineering background	Former architect who is running a consulting firm	PhD student working in a Department of Biological & Chemical Engineering
Translator and philologist who collaborates with theatre companies	Textile designer	Graphic designer	Professor of Affective and Behavioural Computing



All collected case studies represent highly skilled migrant women in the STEAM sector. The table below indicates the women's countries of origin. The map visualises their diverse backgrounds.

Table 2. Participants' countries

MEET	VAMK	INCOMA	lnova Consultancy
Russia	Japan	Venezuela	Egypt
Tunisia	Kenya	Argentina	Serbia
Iran	Taiwan	Ecuador	Nigeria
Morocco	Bangladesh	Venezuela	Nigeria
Lithuania	India	Venezuela	lran

Figure 6. Countries of origin



CHALLENGES FACED BY MIGRANT WOMEN IN STEAM

Based on the information collected by project partners, the following challenges and obstacles have been identified by migrant women in the STEAM sector. The collected barriers have been categorised into four groups: Skills and knowledge; Access to information; Social, Cultural and Economic contexts; and Legal context. The most often mentioned challenges are the ones in the third group including double discrimination towards migrant women and discrimination towards migrants.

Table 3. Participants' challenges

	Lack of language skills
	Lack of relevant and necessary knowledge
Skills and knowledge	Constant demand to update competences due to the swift
Skills allu kilowieuge	development in the fields
	Demand to demonstrate more skills than required by native
	counterparts in job applications
Access to information	Lack of access to information and guidance
Access to information	Lack of networks
	Stereotypical role of women (getting married and starting family)
	in some cultures
Social cultural and	Work-life balance
Social, cultural and economic contexts	Discrimination towards migrants
economic contexts	Prejudices
	Non-inclusive workplaces
	Double discrimination towards migrant women
Logal contact	Bureaucratic challenges to be able to reside and work
Legal context	Challenges with visas and legal procedures



RECOMMENDATIONS

Following the analysis of case studies, partners collected some recommendations that could be useful for policymakers, employers and support workers to create a more inclusive and supportive environment for migrant women in the STEAM sector. These could contribute to the support offered to highly skilled migrants in the sector:



ENCOURAGING MORE GIRLS INTO STEAM BY HAVING ROLE MODELS



ORGANISING PROGRAMMES FOR BOTH MIGRANT WOMEN AND LOCAL PARTICIPANTS



RECOGNISING COMPETENCIES OF FOREIGN-BORN NATIONALS



ADVOCATING FOR WOMEN IN STEAM BY PROMOTING AND CREATING ORGANISATIONS SPECIALISING IN SUPPORTING WOMEN IN STEAM



AVOIDING STEREOTYPES



PROVIDING EMPLOYEE CONVERSATION CLASSES



ASSESSING IF JOB POSTINGS ARE NON-DISCRIMINATORY



ENCOURAGING MIXED GROUPS
IN UNIVERSITY PROJECTS FOR
MIGRANT WOMEN TO PARTICIPATE
IN CLASS DISCUSSION

CHAPTER 4.

MAIN LESSONS LEARNT DURING FOCUS GROUPS

1. BACKGROUND INFORMATION OF **PARTICIPANTS**

A total of 24 focus group participants met online due to COVID-19 restrictions.

Table 4. Number of participants by country

Country (in alphabetical order)	Number of participants	Number of highly-skilled migrant women in STEAM
Finland	7	7
Italy	5	5
Spain	6	6
United Kingdom	6	5

Eligibility of participants were confirmed by questionnaires and phone interviews. Most of them were highly-skilled migrant women in STEAM; one was closely allied to migrants.

Participants had diverse origins; in the UK, largely from Turkey and Mexico, from Mexico also predominant in Spain.

Table 5. The origins of participants by country

Country	The origins of participants	
Finland	Indonesia, India, Vietnam, Iran, Hungary and Ethiopia	
Italy	Lithuania, Tunisia, Morocco, Iran and Russia	
Spain	Mexico, Colombian, El Salvador and India	
United Kingdom	Turkey, Mexico and Malaysia	



Participants had varied professional experiences. In Finland and Italy, some had multiple STEAM area backgrounds.

Table 6. Backgrounds and experiences of participants by country

Country	Backgrounds and experiences of participants				
	(1) entrepreneur, microbiology; PhD, microbiology				
	(2) data analyst; international business education; former engineering researcher				
) intern studying programming; previous study in arts field				
Finland	4) chemical engineering PhD student				
	(5) engineer; studied electronics engineering; 7-8 year work experience before move to Finland; medical engineering researcher; science and more				
	(6) engineering student; previous internship; plans Master's in Al				
	(7) research intern; 2 Master's degrees in Finland; interest in STEAM				
	(1) graphic design freelancer and art director. Traditional media and branding, web, editorial design and typography				
Italy	(2) translator; degrees in Lithuanian philology and Italian language and Modern Literature and Civilization				
	(3) Master's student, international relations; voting rights activist				
	(4) hydraulic engineer; lived in Italy a few months				
	(5) arts management degree; digital transformation in creative industry				
	(1) artist				
	(2) biologist				
	(3) graphic artist				
Spain	(4) dentist				
	(5) nurse				
	(6) biologist				
	(1) economics PhD student; interest in integration of refugees				
	(2) arts sector worker; interest in tech side of art; PhD in field				
United	(3) non-migrant visual anthropologist; science, art work; also, with migrants aged 15-16 in care; engaged Slovak and Roma communities				
Kingdom	(4) trainee, mechatronics engineering Master's; entered England with husband				
	(5) PhD student; background in linguistics and humanities				
	(6) industrial engineering worker; SAP Consultant in manufacturing				

In descending order, participants currently work or study in arts, engineering, science and, in a tie, mathematics and technology. Most common in: Finland, engineering fields; Italy, arts; Spain, science, engineering; the UK, arts and mathematics.



The STEAM fields amongst participants in the focus groups 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% **United Kingdom** Finland Italy Spain Total Engineering Arts
Mathematics Others ■ Science ■ Technology

Figure 7. The STEAM fields amongst participants in the focus groups by country and in total

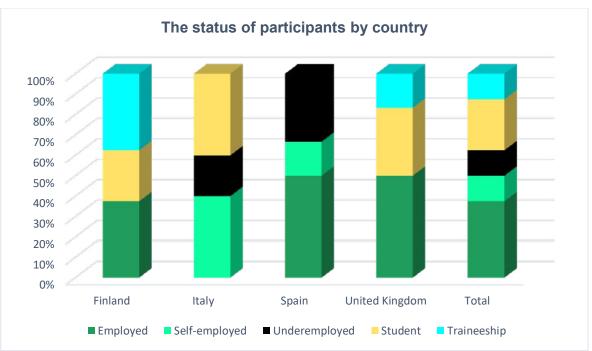
The largest proportion of participants was employed, followed by students, self-employed, underemployed (in non-STEAM fields or temporary employment) and traineeship. In Italy, one had occasional employment. In Spain, three worked not in their STEAM fields: dentist works as director of her clinic because her dentistry degree was not certified by Spain; the artist works as a dance teacher in multiple schools on a temporary basis; nurse works as bar waitress while looking for a chance to validate her degree.

Table 7. The status of participants by country and in total

	Finland	Italy	Spain	United Kingdom	Total
Employed	3		3	3	9
Self-employed		2	1		3
Underemployed		1	2		3
Student	2	2		2	6
Traineeship	2			1	3
Unemployed					0



Figure 8. The status of participants by country



The participants' variety of life experiences provided rich and valuable information on highly-skilled migrant women in STEAM fields.



2. OPINIONS ABOUT THE **SITUATION OF MIGRANT WOMEN** IN THE STEAM SECTOR

Participants experienced gender discrimination in Finland, Italy, Spain and the UK to differing degrees; discrimination for migrant status in employment searches in Finland and Italy; difficulties with qualifications profound in Italy and Spain; significant obstacles with visa and work permit requirements and lack of sympathy from employers in the UK.

Table 8. The situations of highly skilled migrant women in STEAM by country

Country	The situations of highly skilled migrant women in STEAM
Finland	 Difficult to get employed in own fields Discouragement and insecurity in STEAM fields Low possibility of employment for migrant women in arts Taking jobs and positions that they are overqualified for Needing access to labour market information in higher education institutions Community is limited amongst internationals Discrimination towards migrant women
Italy	 Difficulty in asserting qualifications earned abroad Discrimination towards women in STEAM Prejudices against migrant women Problems with access to institutional training facilities Discouragement and insecurity in STEAM fields Low possibility of employment in scientific subjects Taking jobs and positions that they are overqualified for Lack of famous advocates Customer bias against employers who hire migrant women
Spain	 Taking positions for which they are overqualified, not related to studies completed in home countries Lack of information on how homologations are carried out and which degrees are not validated in Spain Lack of recognition of professional study titles, degrees and certificates. Double disadvantage of being a migrant woman Limited opportunities for migrant women in arts
United Kingdom	 Discrimination towards women in STEAM, lack of female voices and role models higher up the career ladder Difficulty re-entering workforce and decreased confidence after maternity leave Gender gap in wages Language barriers Lack of knowledge of where to look for employment Lack of information of where to look for support Visa and work permit difficulties; lack job providers sympathy



3. BARRIERS TO **FINDING EMPLOYMENT** IN THE STEAM SECTOR

Participants shared some barriers and proposed possible reasons and solutions.

A) GENDER INEQUALITY

FINLAND

Although participants agreed that gender discrimination is not a noticeable difficulty, it was believed to exist in particular contexts, such as in hiring decisions. Companies might prefer to hire men over women, especially in STEAM fields.

SPAIN

A participant offered that for every five women working, there is one man and that man normally is their superior as an example of the unequal treatment of women. As migrant women, they face socio-economic barriers, cultural differences and obstacles in their career progressions in STEAM environments.

ITALY

In job interviews, migrant women are more likely to be asked personal questions such as whether they plan to have children. This was considered the biggest obstacle faced in recruitment. Employers may encounter bias from customers if they hire foreign workers. There is a lack of professional, political or institutional women who can be role models for migrant women.

UNITED KINGDOM

Participants did not recognise significant gender bias on a personal level. The employment situation for women in STEAM is improving with more campaigns to encourage women to enter these fields. However, male dominance of the sector can be seen, and a lack of female voices and role models higher up the career ladder can be a concern for women in STEAM.



B) LACK OF NECESSARY INFORMATION AND SUPPORT

FINLAND

Difficult to access information because of limited language fluency, most materials not available in English; they have to find information about labour market, job applications and vacancies in their fields on their own.

UNITED KINGDOM

Lack support and access to information about employment; few mentoring opportunities for migrant worker and employer to learn together; UK government funding and research not easily accessible.

SPAIN

Information on employment and homologation not provided to migrant women in STEAM before they move to the country; homologation not understood adequately; deficiency of support on the institutional level.

C) DISCRIMINATION AGAINST MIGRANT BACKGROUND

Evident in Finland, Italy and Spain, and demonstrated most severely in focus groups in Finland and Italy.

FINLAND

Lack of trust from employers and Finns towards the foreign-born lowers the probability that migrants will get hired. Discrimination does not always appear as it is but under another form. For instance, foreign job seekers are often rejected because of their lack of Finnish language skills. However, a participant with C1 level Finnish language skills still got rejected without any justification.

SPAIN

Participants felt less valued at work as migrants and for not having their degrees validated.

ITALY

lob seekers from Africa encounter more challenges than applicants from Euro-Asia. Participants found that they were misunderstood when speaking Italian because of their foreign accents. Prejudice against migrant backgrounds can come from customers who complain if work is not done by "native" Italians. Migrant workers are not given credit for accomplishments and performance. Foreign-born employees furthermore carry heavier workloads than of their Italy-origin colleagues.



D) BUREAUCRATIC AND LEGAL ISSUES

In Italy and the UK, the visa application process considerably impedes migrants' chances to work. It is complicated and participants may not receive much support from the authorities or their potential employers.

ITALY

Participants received insufficient support at service points. Staff often lack proficiency in English or languages other than Italian. Difficult requirements likely discourage employers from hiring foreign-born candidates.

UNITED KINGDOM

Work permits allow individuals to get employed only in specified fields. Visa expiration threatens the recruitment process, and employers may not comprehend the situation and provide support.

E) PARENTHOOD AS A DISADVANTAGE

Parenthood can be a barrier to employment because maternity leave and family obligations can take time away from work. In countries that are already known for prejudice against women, migrant women are even more vulnerable.

ITALY

Some participants experienced numerous difficulties at work because of negative attitudes towards motherhood. As a result, one ended up freelancing to be able to meet her children's needs.

UNITED KINGDOM

Some migrant women who emigrated with male partners stayed home longer to care for children before entering the labour market of the host country.



F) LACK OF LANGUAGE SKILLS, I.E. FINNISH

The most frequently cited barrier was the lack of Finnish language skills. Employers and companies expect job candidates to be fluent or nearly fluent in Finnish, even for positions that do not require language skills. As a result, the reason employers gave most often for rejection was that the candidate did not have enough language skills.

H) COMPLEXITY OF HOMOLOGATION AND ITS PROCESS IN THE COUNTRY

Participants lacked knowledge about homologation and which degrees are not validated in Spain. Regardless of previous degree completion and work experience, an invalid degree blocks migrant from working in an industry and requires retaking education to continue the same career that they had in their home country.

G) DIFFERENCES OF CAREER REQUIREMENTS AND EXPECTATION OF HOME AND HOST COUNTRY

Even with years' experience in a field in the home country, a migrant may have difficulty getting hired in the same field in the host country due to the differences in requirements.

I) LACK OF STAKEHOLDERS' INVOLVEMENT AND COMMITMENT

Employment challenges for migrant women in STEAM cannot be solved solely by migrant women while stakeholders' commitments are ambiguous and their involvement inadequate. One participant said that it is unsatisfactory and unfair that migrants are always told to develop their competencies more to get a job without knowing accurate expectations from the employers and whether there is any guarantee of being hired.



 Table 9. Reasons and proposed solutions for the barriers to find employment in STEAM

The barrier to find employment in STEAM	Possible reasons	Proposed solutions	
Gender inequality	- Discrimination against women in STEAM due to outdated, and biased beliefs that women are not capable of doing STEAM tasks or do not contribute as significantly as men.	 Companies can: Hire more women for a more diverse, sustainable workforce. Institute training to address gender and other biases among managers and staff. Use hiring and promotion criteria to address structural inequities that favour white, non-disabled cisgendered men. Be more equitable in hiring. Blind applications and recruitment campaigns targeted at women and other minorities could increase workforce diversity. 	
Lack of necessary information and support	- This is a condition of the labour market. Migrant women in STEAM find limited resources to address their special needs.	 Make STEAM opportunities information available in English. Increase access to information. Offer support at institutional level. Migrant women in STEAM should proactively reach out to employers and not wait for positions to be listed. Make contacts within field and cultivate professional networks within the host countries. Businesses and trade organisations could provide English language material and target English-speakers in job advertisements and campaigns. 	
Discrimination towards migrant background	 In Finland, lack of trust in migrants, compared to strong trust and preference for Finnish citizens. Immigration to Italy fairly recent; cultural adaptation needed. 	 Network with others in STEAM, especially Finns for those in Finland, to gain trust from natives and increase employment opportunities. Intercultural competencies training for businesses, municipalities and neighbourhoods. 	
Bureaucratic and legal issues	 Italian bureaucracy not sufficiently prepared to meet needs. Natives do not understand what migrants experience. 	 Institutions such as universities should facilitate for prospective applicants. Changes to current requirements for residency permits could be proposed. 	



Parenthood as a disadvantage	- In Italy, women feel pressure to choose between family and work. This stems from the deep-seated prejudice against women.	 Provide migrant women better childcare provisions. More state protection for mothers, more flexible contracts based on agreed needs between worker and employer. Permit fathers time off to care for children.
Lack of language skills, i.e. Finnish	- Participants believe that in the selection phase companies prefer Finnish-speaking candidates.	 Companies could offer more opportunities to learn and practice language through internships, work trials, etc. Businesses could guarantee equal treatment of job candidates and employees with "Equality and Inclusion" plans.
Differences of career requirements and expectation of home and host country	- Career qualifications between countries are not unified.	 Migrants repeat education in host country and/or research how field differs in host country. Homologation of degree can allow credentials to be recognised.
Complexity of homologation and its process in the country	- This difficulty is caused by the bureaucratic delays at the Ministry.	- Since March 2021, the Spanish government has committed itself to speed up the homologation of diplomas, as it is taking an average of two and a half years.
Lack of stakeholders' involvement and commitment	 Unclear, ambiguous and incoherent commitment of employers. A lack of involvement of decision-makers and changers in various discussions. 	 Stakeholders can enter two-way discussions. Companies can set key performance indicators (KPI) for hiring migrants and allow them to do work trials or internships to demonstrate abilities. Migrants can learn language, enhance skills.



4. TRAINING **EXPECTATIONS AND NEEDS** FOR MIGRANT WOMEN IN STEAM

Focus group participants want assistance navigating host countries' bureaucracies. They need information and support to obtain residency and work permits, get their degrees and certifications officially acknowledged, and country-specific training for employment searches and adapting to host country work culture. Many need support learning the host country's language. Often, they have or plan to have children and need resources for childcare and family support. Those needs also impact their ability to attend training.

A) TRAINING DELIVERY

Participants from the four focus groups requested the following:

- One-to-one mentoring on different parts of working life and tips to get hired.
- Face-to-face meetings, rather than virtual meetings. This will also depend on learners' needs.
- Group mentoring of 3-4 participants.
- Accessible, free courses and training for qualifications and certifications.
- Mentors in the workplace at induction and ongoing.

C) PREFERRED TRAINING TIME

Training should be a reasonable duration at a productive time.

- Finland: ideal day Saturday; time only a couple of hours.
- Italy: each session a couple of hours; preferred evenings; preferred weekends.
- UK: mornings preferred; online training particularly tiring, so shorter morning sessions most productive.

B) MENTORS, TRAINERS AND FACILITATORS

Participants would like ones that:

- Have significant influence on labour markets and/or authority to commit to change.
- Have solid experience or understanding of the industry.
- Share some characteristics with the participants in order to create a pre-bond.
- Have links to associations and employment centres so they can act as a liaison in order to help participants find jobs.
- Can mentor people who already have jobs.

D) TRAINING CONTENTS

Requests:

- Confidence-building.
- Entrepreneurship, and self-employment and relevant skills.
- -Finland and the UK: not only specific training subjects but also steps to tackle a single issue.
- Italy: more tailored advice, consultancies and support.
- Spain and UK: Training for employers and other stakeholders.



Focus group suggestions closely correlate to proposed modules. Content will be adapted somewhat to each country's context. Four content categories: soft skills; entrepreneurship and self-employment; language; information, support and consultancy.

Table 10. The areas of training contents

	Areas of training contents	
	Areas of training contents	
	Self-efficacy	
	- Confidence-building identified as most important soft skill for the steam sector. Confident communication and public speaking skills particularly beneficial.	
	Transferability of skills	
	 Advancing skills in steam sector in host country. Need to appropriately and confidently adapt. Accessible, tailored advice for migrant women's unique situations. 	
Soft skills	t skills Networking	
	 Use tools like LinkedIn to increase professional networks and find job listings to match steam sector skillsets. Networking skills advertise skills and build confidence through connecting with others in sector. Pair up newly arrived migrant women with settled migrant woman mentors successfully working in the steam sector. 	
	Others	
	- Self-reliance, creativity, self-motivation, and resilience.	
Entrepreneurship and self-employment	 Self-employment options in steam. Entrepreneurial skills presented in practical way with searchable-topic training package. 	
Language	- Participants in Italy wished to work on what are the processes of preparing work proposals.	
Information, support and consultancy	 Advice on processes in host countries, such as interview expectations and example CVs. Information, such as how and when to obtain necessary documents; areas of work; where migrants could work, cost, etc. Opportunities to share knowledge obtained in home countries but under homologation processes in host countries. 	



5. ROLE OF **STAKEHOLDERS** IN THE EMPLOYMENT OF MIGRANT WOMEN IN STEAM

Participants want educational institutions, NGOs, companies and other stakeholders to play a more significant and supportive role to support migrant women's employability in the STEAM sector. Participants in Finland, Italy and Spain were frustrated and lacked confidence in stakeholders. They had expected stakeholders would be more involved in employment and other related fundamental inclusion matters.

A) COMPANIES

Commit to hiring a certain number of migrant women. Make a key performance indicator (KPI) for recruitment to enhance diversity, inclusion and gender equality. The employment situation can improve if companies are more open to change.

Remove biases in hiring processes. Use blind screening to guarantee more equity in this stage. Provide an intermediary people can contact without fear of consequences when they believe the treatment has been unfair.

Encourage and offer more training for employees on cultural competencies. Actively encourage integration and a cooperative approach in the work environment.

B) ORGANISATIONS THAT SUPPORT MIGRANT WOMEN'S EMPLOYABILITY IN STEAM SECTORS

Hold events with benefits beyond networking. For example, employers could establish lists of desired skills or qualities and let job seekers know certain criteria for developing themselves.

Collaborate with local people who can orient new arrivals. Co-organise activities with migrant women to better understand their needs. Provide dedicated free communication spaces.

Give more institutional support to migrant women in STEAM. Participants look forward to assisting with long and complex bureaucratic procedures.

C) EMPLOYMENT ORGANISATIONS, HIGHER EDUCATION INSTITUTIONS AND POLICYMAKERS

Collaborate to provide and ensure a skilled labour force, particularly of migrant women in STEAM. Keep increasing awareness and propose STEAM calls and trainings for women. One participant observed that, a company wishes to hire skilled and appropriate employees and is uncertain if someone wanting to get hired will have adequate and aligned competencies.

Increase and expand knowledge about the employment of migrant women in STEAM. One participant felt that there were still attitudes regarding migrant workers that negatively impact employment prospects. Educate policymakers and push for more companies to hire migrant workers. Make hiring migrant employees more attractive.



SUMMARY OF THE FOCUS GROUPS

The small sample size does not give a general overview but reflects much of what is already known about the struggles of migrant women seeking employment in STEAM fields in European countries. Highly skilled migrant women in STEAM fields:

Face double minority bias as migrants and women in male-dominated fields as they are sometimes believed to be not as smart or capable as men in STEAM fields.

Are an underserved population in Europe, few in number, and have unique needs.

Want assistance navigating bureaucracy in their host countries; need information and support to obtain residency and work permits, get their degrees and certifications officially acknowledged, and country-specific training for employment searches and adapting to their host country's work culture.

May face ethnic prejudices or biases that impede their abilities to find suitable employment for the level of their training, experience and skills.

May encounter gender bias from employers because they may need time off for maternity and family.

Many need support learning the host country's language.

Often, they have or plan to have children and need resources for childcare and family support.

MentoraSTEAM training target this specialised demographic of highly skilled migrant women. Information and suggestions collected in the four focus groups will refine the planned activities of the project. In addition, specific national needs and preferences will be honoured. Training in soft skills, entrepreneurship, language skills, and information support and consultancy will empower these women to face the challenges of migrant women in STEAM fields.

Additionally, the focus groups made clear that the public sector, individual businesses, educational institutions, communities and NGOs have a role to play supporting migrant women in STEAM. However, the level of assistance is not yet where it needs to be. More should be done to support these highly skilled migrant women who have the potential to positively enhance the workforce and work culture of their new home countries.



Training migrant women will empower them to face obstacles better and reach their goals. They, however, cannot overcome the biases of others entirely through their own efforts. They would appreciate mentors who may have backgrounds similar to their own. Focus group participants also desire participation and collaboration from representatives of public entities, businesses, and their communities. They would like advocates. An invitation for participation and collaboration could be extended to these entities through the MentoraSTEAM project.

Highly skilled migrant workers add value to their adopted country's workforce. These are often younger adults who will contribute many years as productive workers. Host countries should appropriately guide these new arrivals and help them find their place in their new countries.

STEAM fields need greater gender diversity. Migrant women trained in STEAM fields are a resource to help businesses increase diversity and thereby their potential for innovation and sustainability.





CHAPTER 5. INITIATIVES

A total of 61 initiatives were researched, reported, and collected.

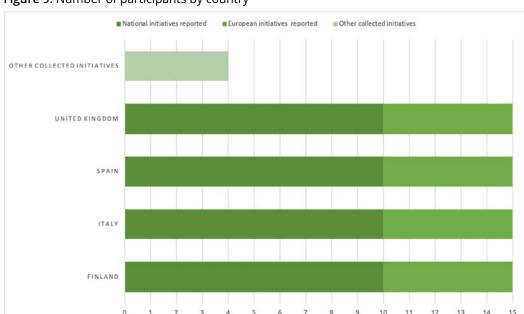


Figure 9. Number of participants by country

The initiatives were validated as eligible according to the criteria established in the research process: initiatives for migrant women in the STEAM area, initiatives targeting women, initiatives targeting migrant women and initiatives targeted at people in the STEAM context.

Figure 10. Initiatives in the European territory



The main scope area where the collected initiatives are actively operating is predominantly the European territory.



 Table 11. Initiatives per countries

Country	National projects reported
Country	(1) International Working Women of Finland Ry
	(2) Women in Tech Finland
	(3) Monika-Naiset Alliance
	(4) <u>At Home in Finland project</u>
Finland	(5) Integration SIB project
	(6) <u>SIMHE - Supporting Immigrants in Higher Education in Finland</u>(7) <u>Manifold more</u>
	(8) Business Ladies
	(9) <u>Getting ready - A higher education preparatory program for immigrants</u>
	(10) <u>Auroras</u>
	(1) PERCORSI D'INCLUSIONE PER DONNE IMMIGRATE, VITTIME DI SFRUTTAMENTO E TRATTA
	(2) A tea with us
	(3) Sofia, dal Greco "Sophia"
	(4) <u>Donne Immigrate e Seconda Generazione</u>(5) <u>loLavoro!</u>
Italy	(6) <u>Malaika</u>
	(7) <u>Torino la mia città</u>
	(8) Sguardi di donna: percorsi di integrazione sociale e culturale tra donne straniere e italiane
	residenti nel Territorio della Provincia di Como
	(9) <u>Donne immigrate: percorsi di inclusione sociale</u>(10) <u>Name – New Actions for Migrant women</u>
	-
	(1) Andalucía se llena de África, "Andalusia fills with Africa I & II".
	(2) <u>Women with Science</u>
	(3) Inspira STEAM
	(4) <u>WomenTeck, Asociación mujer, ciencia y tecnología</u> .
Spain	(5) Matesella
Spain	(6) <u>Womenalia</u>
	(7) Asociación de Mujeres Investigadoras y Tecnólogas
	(8) <u>Asociación EmPoderArte</u>
	(9) Scholarship for Latina American women who wish to study STEAM in Spain
	(10) Girls in Tech
	(1) Project ENTHUSE
	(2) WISE: Engineering and YOU
	(3) <u>EUMentorSTEM</u>
	(4) 'Return to Tech'
	(5) <u>FATIMA Project: Wonder Foundation</u>
United Kingdom	(6) <u>TechUP</u>
	(7) <u>MentorSET</u>
	(8) <u>Wise: Leeds Apprenticeship Project</u>
	(9) Regen's Women in Renewable Energy (ReWIRE) mentoring programme
	(10) Women in High Performance Computing (WHPC)
	(10) Women in riight enormance companing (With C)



FRAMEWORK OF NATIONAL INITIATIVES

The reported initiatives vary greatly from one another in terms of content and implementation. Key factors in this broad - scale of values and activities lie in European cross-cultural nuances, exemplified by the more pronounced differences between Northern European and Southern European countries.

In **Finland**, there have been considerably fewer migrants compared to other Western European countries, particularly to other partner countries, despite the increasing migrant trend in recent years. According to the latest update of Eurostat (2021), the foreign-born population in Finland accounted for approximately 6.6% of the total population in 2018. Thus, the issues that relate to migrants, in general, are rather new, which justifies the unabundant and undiversified initiatives that have been implemented within the nation.

Many of the initiatives aimed at migrant women in **Italy** have as their main purpose integration rather than access to the working environment. And when it comes to paths that help to enter the world of work, it is predominantly about manual jobs and activities. Moreover, to other initiatives that include migrants of both genders, projects targeting migrants' women are few and barely communicated.

In **Spain**, the initiatives and projects reported that worked directly towards women and migrant women recognise and strengthen their competencies and skills in work and life while adapting to the host countries. Regarding those projects focused on migrants (and some of them solely on migrant women), the main targets were to sensitise the host society as well as to highlight the contribution that these migrants could provide, highlighting inclusion and diversity.

The reported initiatives and projects that are **UK**-based are aimed at women, mainly migrants, there is a sensitivity towards women, mainly in STEM subjects. There are few cases towards women in STEAM disciplines.





MOST RELEVANT INITIATIVES FOR THE MENTORASTEAM PROJECT

From the wide range of national initiatives present, it is possible to identify and build a spectrum of views to prepare for the process ahead based on the insights, lessons learned and results of these experiences.

FINLAND

SIMHE - Supporting Immigrants in Higher Education in Finland

Helps highly educated immigrants to recognise their competencies and provides guidance towards suitable educational and career paths on national and regional levels. Hence, the earlier studies and degrees of highly educated immigrants are identified and recognised, through which immigrants find their way to appropriate education and careers paths.

Women in Tech

Provides a broad network of events and activities that are free and open for everyone. members include companies, organisations and other actors in the field of technology, especially women that are in technology and interested in the field. The project encourages and empowers more women to join the technology sector, and to promote the value of diversity, inclusion and equity in technology. Besides raising the confidence of women, the project has raised numerous discussions about diversity, equity and inclusion in tech, by means of raising awareness of stakeholders, such as tech employers.

ITALY

Malaika

Created to promote the development, dissemination and exchange of innovative of models and innovative intervention tools to support the autonomy of young migrant women, in particular particularly unaccompanied minors in transition to adulthood (16-17 years old) and young women at risk of social exclusion up to the age of 24. The meaning of the Project is to not only carry out actions to promote and accompany the process of autonomy of young migrant women, but also to test an innovative and replicable model to carry out similar actions.

NAME - New Actions for Migrant WomEn

Was born from a partnership composed by six organisations within Italy that work together to reach both immigrant women who want to create their own independent life and professionals and employees who wish to discover more of the great opportunities to be open to new cultures. The overall aim is to improve and enhance the opportunities for employment, self-support and a safe and independent everyday life within the framework of an equal citizenship in accordance with the needs and requirements among immigrant women in Europe.



SPAIN

Andalucía se llena de África

Is a project for African men and women carried out by the NGO Alianza por la Solidaridad. Within this project, initiatives of migrant women are being worked on and how they can contribute to the host society, Andalusia. The aim of this project is to sensitize the Andalusian population of the potential that migrants have through actions that Africans take to improve the quality of life in their neighbourhoods. It has been specially worked in the field of art, and the project tries to bring African culture and its art closer to the local population. Quite relevant because it is born from and for the migrant population. They are the ones who empower themselves and decide to talk about their potential and how they can contribute to society.

Mujeres con ciencia

Is a website that aims to show what women do and have done in the STEAM sector. Biographies, interviews, events, ephemeris and all kinds of chronicles or relevant events will have a place in this medium. Their purpose is that Women with science make known the existence of these women, their work and the circumstances in which they developed or develop it. Really useful as it creates a showcase and database of women who have been successful in this sector.

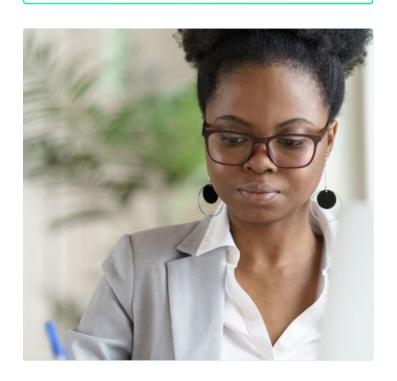
UNITED KINGDOM

WISE: Engineering and YOU

Collaborates with WYCC and Leeds City College (with ESF funding) to support employers in Leeds by identifying and progressing potential female STEM talents within their existing workforce. The project specific objectives are to: give women support in identifying their skills and potential, help women gain an insight into engineering activities and careers, develop women's practical skills and confidence and how these can be applied to existing roles, support the talents in identifying career progression and training opportunities.

MentorSET

Is a mentoring scheme run by Women in STEM. MentorSET provides 'cross-sector independent mentors' nationally, and it is also open to both men and women. Their specialist software is used to search for a mentor, with relevant skills who is paired with the mentee to help you reach your milestones, track goals and communicate over a period of twelve months.





After a first skimming there are 3 projects that have been reported in the national reports of the different countries, bringing the number of unique projects found to 61.

 Table 12. Most relevant initiatives

Country who collected the initiatives	Project Name
	(1) <u>Kaleidoscope project</u> (2) <u>INTEGR8 project</u>
Finland	(3) ENGAGE
	(4) The Project Mile
	(5) <u>FEMINA</u>
	(1) <u>Wemin</u>
	(2) <u>Fatima Project</u>
Italy	(3) <u>SPIN Women project</u>
	(4) MAI – Migrants' Women Aspirations Project
	(5) <u>Caminhar</u>
	(1) Impulse4women.
	(2) Greenlight for girls.
Spain	(3) <u>EU Women 4 future</u>
	(4) <u>European Network of Migrant Women</u>
	(5) <u>FEMINA (Female participation in high-tech enterprises)</u>
United Kingdom	(1) WITEC EU
	(2) The Project Mile
	(3) 'Intra-EU Mobility of Professional Women – Survey Results: Networking, Employment Services and Information'
	(4) MICADO - Migrant Integration Cockpits and Dashboards
	(5) <u>European Training Foundation/MPC Project on Migrant Support Measures from an</u> <u>Employment and Skills Perspective (MISMES Project)</u>



Figure 11. Most relevant initiatives



MOST RELEVANT INITIATIVES FOR THE MENTORASTEAM PROJECT

Femina aims to ensure that selected policy instruments are integrated with measures to promote female engagement in their high-tech sectors. Femina addresses how to identify, implement, monitor and evaluate policy measures that break down barriers to female high-tech entrepreneurship, to employment and career progression in high-tech SMEs and to the gender dimension of innovation in funding schemes for high-tech start-ups and SMEs.

The Project Mile - Migrants Integration in the Labour market in Europe MILE is a project funded by the European Union's Asylum, Migration and Integration Fund, which aims to develop, implement and mainstream an effective model of integrated services for the integration of Third-Country Nationals into the labour market, based on multi-sectoral competencies, mobilisation of actors and migrants' cultural, social and economic needs.

WITEC EU is the European Association for Women in Science, Technology, Engineering and Mathematics (STEM). It was founded in 1988 and 'established itself as a non-profit European association in May 2001.' The project specific objectives are to: increase the number of girls and women studying STEM subjects and to help them progress into related careers, develop women's technical and entrepreneurial skills through training initiatives and projects, create information exchanges and networking opportunities for women in STEM, promote and support research in areas relating to women in STEM, support initiatives to promote the Gender Mainstreaming Policy and promote regional, national and international awareness and interest in this field.

EU Women 4 future campaign showcases women's work and values their achievements in science, research and innovation; Education and youth; culture and sport. This campaign seeks to celebrate women across the EU involved in the above-mentioned fields, showcase EU commitment to the gender gap, highlight successful professionals to encourage young girls to study STEM subjects and build networks to help other women and act as role models.



Figure 12. Initiatives in non-European territory

Other initiatives collected	Project Name
	(1) The National Immigrant Women's Advocacy Project (USA)
	(2) <u>Southern Arizona Battered Immigrant Women</u> <u>Project (USA)</u>
	(3) <u>Immigrant Women's Speakout Association</u> (AUSTRALIA)



The National Immigrant Women's Advocacy Project was formed to educate, train, offer technical assistance and public policy advocacy, and conduct legal and social science research that will assist a wide range of professionals working at the Federal, State, and local levels who work with and/or whose work affects immigrant women and children. Southern Arizona Battered Immigrant Women Project helps to identify and develop resources and provide outreach and training to organisations that interact with immigrant women who may be victims of domestic violence or sexual violence. The project has established six task forces in Arizona's seven southern counties: Graham, Greenlee, Cochise, Pinal, Pima, Santa Cruz and Yuma.

Immigrant Women's Speakout Association is the peak advocacy, information/referral and research body representing the ideas and issues of immigrant and refugee women in NSW. The Association also undertakes community development projects and provides direct services, including in the areas of homelessness, domestic violence and employment, education and training. Speakout is a community-based organisation, managed by women of non-English speaking background.





CHAPTER 6.

CONCLUSIONS AND RECOMMENDATIONS

Having collected in these chapters the stories of success, the testimonials of migrant women and their needs and the existing initiatives at the European and national level in the four partner countries, we could highlight some ideas as conclusions:

Indeed, highly skilled migrant women in STEAM fields must cope with being minority migrants and being a woman (gender issues, maternity as a disadvantage), so they may face not only gender bias but ethnic prejudices to find suitable employment.

They wish to have more information about the regularisation and validations system in their host countries. The complexity of homologation and its process in the country does affect their lives. There is a lack of necessary information and support for migrant women in STEAM that find limited resources to address their needs.

Bureaucratic and legal issues exist; there is not enough to meet needs for our target.

Career requirements between origin country and host are not unified.

They are an underserved population in Europe, few in number, and have unique needs.

There is a lack of stakeholders' involvement and commitment.



It can be also highlighted the wishes of the women who were interviewed in Finland, Italy, United Kingdom and Spain:

To have more influence on the labour market to commit to change.

To be more aware of the industry in the host country.

To create a supporting network of women in the same situation as themselves.

To have links to associations and employment centres so they can act as a liaison to participants find jobs.





Bearing this in mind, some recommendations have been gathered for working with migrant women and assisting them in their development within the STEAM sector:

To facilitate integration and create networks, the creation of mixed spaces of work will be crucial. Organising University programmes and projects for migrant and local women will help to cope with this need.

The recognition of competencies will be essential in enabling them to validate their formal and non-formal competencies so that they can contribute to host society in an employable way.

Encouraging more girls into STEAM by having role models, organises the exchange of experiences between successful migrant women.

In the labour market, it will be crucial to ensure that contracts and conditions are not discriminatory.

Adapting some of the initiatives outlined in the previous chapter will help stakeholders, institutions and NGOs to implement ideas considered good practices.

Training and mentoring on how to redirect female migrants' career to the STEAM sector or how to enhance them will be essential.





REFERENCES.

- Gjersoe, N. (2018). Bridging the gender gap: Why do so few girls study Stem subjects? The Guardian's Psychology Head quarters. The Guardian's Psychology Head quarters. The Guardian.
- Eurostat (2019). Women in science and technology. Retrieved from: https://ec.europa.eu/eurostat/web/products-eurostat-news/-/EDN-20190211-1
- Li, M. Integration of migrant women: A key challenge with limited policy resources. (2018). Retrieved from https://ec.europa.eu/migrant-integration/feature/integration-of-migrant-women.
- Perez-Felkner, L. (2018). Conceptualizing the field: Higher education research on the STEM gender gap. New Directions for Institutional Research, 179:11-26. doi: 10.1002/ir.20273
- Tellhed, U., Bäckström, M. & Björklund, F. (2017). Will I Fit in and Do Well? The Importance of Social Belongingness and Self-Efficacy for Explaining Gender Differences in Interest in STEM and HEED Majors. Sex Roles, 77, 86-96. Doi: 10.1007/s11199-016-0694-y.
- United Nations, Department of Economic and Social Affairs, Population Division (UNDESA). (2019). International Migrant Stock 2019, Country Profile: Finland.
- United Nations, Department of Economic and Social Affairs, Population Division (UNDESA). (2019). International Migrant Stock 2019, Country Profile: Italy.
- United Nations, Department of Economic and Social Affairs, Population Division (UNDESA). (2019). International Migrant Stock 2019, Country Profile: Spain.
- United Nations, Department of Economic and Social Affairs, Population Division (UNDESA). (2019). International Migrant Stock 2019, Country Profile: United Kingdom.
- World Economic Forum, 2020. Global Gender Gap Report. World Economic Forum. Retrieved from: WEF_GGGR_2020.pdf (weforum.org)

