

# ED&I awareness strategy

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## **Abstract**

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The Equality, Diversity and Inclusion (ED&I) strategy defines our clear vision and confirms that ED&I presents a critical thread that runs through the project. This document defines the Consortium's approach, objectives and how they are implemented.

## Authoring & approval

### Author(s) of the document

Organisation name	Date
Serena Fabbrini, Deep Blue srl	24/11/2023

### Reviewed by

Organisation name	Date
Radosav Jovanović, University of Belgrade - Faculty of Transport and Traffic Engineering	29/11/2023

### Approved for submission to the SESAR 3 JU by<sup>1</sup>

Organisation name	Date
Micol Biscotto, Deep Blue srl	30/11/2023

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<sup>1</sup> Representatives of all the beneficiaries involved in the project

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# Engage 2

THE SESAR 3 KNOWLEDGE TRANSFER NETWORK

## Engage 2

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## List of acronyms

Acronym	Description
ATM	Air Traffic Management
CEO	Chief Executive Officer
CFO	Chief Financial Officer
COO	Chief Operating Officer
CSR	Corporate Social Responsibility
ED&I	Equality, Diversity and Inclusion
HR	Human Resources
IATA	International Air Transport Association
STEM	Science, Technology, Engineering, and Mathematics
ToC	Table of Content
US	United States

## Introduction

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### 1.1 General gender equality context in the ATM sector

In recent years, the aviation and air traffic management (ATM) sector has made significant strides in advancing gender equality and inclusivity. However, it is essential to acknowledge that there are still disparities that persist within the industry. Historically, the ATM sector has been predominantly male-dominated, with limited representation of women in various roles and leadership positions. This gender imbalance poses challenges in terms of diverse perspectives, equal opportunities, and promotion of an inclusive working environment. Recognizing the need for change, industry stakeholders have initiated various initiatives and policies aimed at promoting gender equality and diversity.

### 1.2 Engage 2 vision

The Engage 2 project is committed to foregrounding gender equality not just as a pivotal benchmark within the industrial realm and, more broadly, in the ATM sector. We believe it to be an essential societal factor in achieving full gender parity. Gender equality transcends mere professional goals; it is at the heart of a just and equitable society. As such, it forms the pillar of Engage 2's vision. Recognising the profound impact of inclusivity on social and professional landscapes, every partner and individual associated with the Engage 2 project actively integrates this core principle in their daily efforts. Through this unwavering commitment, we seek to ensure that all project activities reflect our dedication to fostering an inclusive environment where gender equality is not just a milestone, but a lived reality.

### 1.3 Purpose and objectives of the ED&I Strategy

The primary aim of Engage 2 strategy on gender equality and inclusivity is to delineate clear 'building blocks' that all individuals involved can adhere to in the execution of their tasks. These building blocks serve as foundational guidelines and stepping stones towards the creation of a more equitable and inclusive environment. Concepts such as the *glass ceiling* and *leaky pipeline* are used to establish a baseline understanding of the challenges faced by many in the industry. By drawing attention to these systemic barriers, the Engage 2 project intends to equip its participants with the knowledge and tools necessary to overcome them, ensuring that every action taken contributes towards a more inclusive and gender-balanced future.

## 2 Building blocks for ED&I actions

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### 2.1 The glass ceiling: an invisible barrier to advancement

The term *glass ceiling* has gained significant power in modern discourse, referring to **the unseen yet unbreachable barrier that prevents women and minorities from rising to the upper rings of the corporate ladder, regardless of their qualifications or achievements**. Though often invisible, this barrier has tangible implications, limiting opportunities and perpetuating disparities in leadership roles and salary scales.

Historically, corporate hierarchies and other sectors were largely dominated by men. Women who ventured into these spheres often found themselves facing subtle, and sometimes overt, biases that hindered their upward mobility. Over time, despite advancements in women's rights and equal opportunities, many still find that an unspoken threshold exists, beyond which their career progression stagnates.

The implications of the glass ceiling are vast. Firstly, it hinders the utilisation of a vast talent pool. By sidelining capable women and minorities, businesses and industries deprive themselves of diverse perspectives, skills, and innovative solutions. This lack of diversity at the top can lead to homogenised decision-making processes that may not reflect the needs or interests of a broader clientele or audience. Moreover, the presence of the glass ceiling propagates discouragement. When ambitious professionals realise that their efforts may never be rewarded due to systemic biases, it can diminish motivation and foster a sense of resignation. This not only affects individual morale but can also lead to decreased productivity and commitment.

However, the tide is gradually turning. Awareness of the glass ceiling has prompted many companies to introspect and implement policies that promote inclusivity and diversity. From mentorship programmes to unconscious bias training, steps are being taken to shatter this ceiling, ensuring that capability, not gender or background, determines one's career trajectory. While the glass ceiling remains a pervasive challenge, recognising its existence is the first step towards dismantling it. As we move towards a more equitable future, it is crucial that businesses and institutions lead the change, valuing merit over stereotypes and ensuring that everyone has an equal shot at success.

### 2.2 Leaky pipeline: understanding attrition in professional progression

The *leaky pipeline* is a metaphor used to describe the phenomenon where **individuals, often from underrepresented groups, disproportionately leave or are excluded from a particular profession or academic pathway at various stages, leading to a lack of diversity at higher levels**. This phenomenon is particularly prevalent in fields like science, technology, engineering, and mathematics (STEM), but can be observed in various sectors and disciplines.

Imagine a pipeline filled with water, representing potential professionals or academics entering a field. As the pipeline extends, representing the progression through various stages of a career or academic path, there are numerous leaks, symbolising points of attrition. By the end of the pipeline,

there's a marked reduction in the volume of water, highlighting the diminished presence of those underrepresented groups at senior levels.

Several factors contribute to the leaky pipeline. Early on, societal stereotypes and biases can discourage certain groups from pursuing particular fields. For instance, young girls might be subtly steered away from STEM subjects due to preconceived notions about gender roles. As individuals progress, lack of mentorship, feelings of isolation, or experiences of discrimination can further exacerbate this attrition.

Additionally, systemic challenges, such as inflexible work environments that do not account for personal needs like maternity or paternity leave, can also act as deterrents. The cumulative effect of these leaks means that even if diverse individuals enter a field in significant numbers, few make it to the top.

Addressing the leaky pipeline is essential not only for the sake of fairness but also for the benefits of diversity in problem-solving, creativity, and innovation. Solutions include creating inclusive work and academic environments, offering mentorship programmes, and actively challenging and rectifying biases and barriers at every stage. The leaky pipeline is a multifaceted challenge that requires comprehensive strategies to ensure that talent isn't lost merely due to entrenched biases or systemic obstacles. Only by plugging these leaks can we hope to see a professional landscape truly representative of our diverse society.



## 2.3 Participation of women in aviation, a short overview

«Aviation was created by man and its history is often told as a chronicle of the achievements of man»<sup>3</sup>.

Historically, the aviation sector has been dominated by male presence across its various sub-sectors, from piloting aircraft to management. However, when looking back over a century, one can find pioneering women who carved a path for the few who engage in this profession today. Notably, women who contributed during World War II<sup>4</sup> and pioneers like **Raymonde de Laroche**, the first woman who pilot a plane in 1909 and obtained the pilot licence in 1910, or the American aviator **Amelia Earhart** who was the first female aviator to fly solo across the Atlantic Ocean in 1928 or even astronaut **Eileen Collins**, who became the first female pilot and commander of a Space Shuttle in 1999, stand as testimony to their enduring spirit. Despite these achievements, commercial aviation is still perceived predominantly as a men's domain, influenced heavily by societal gender roles and biases (de Andreis, 2023).

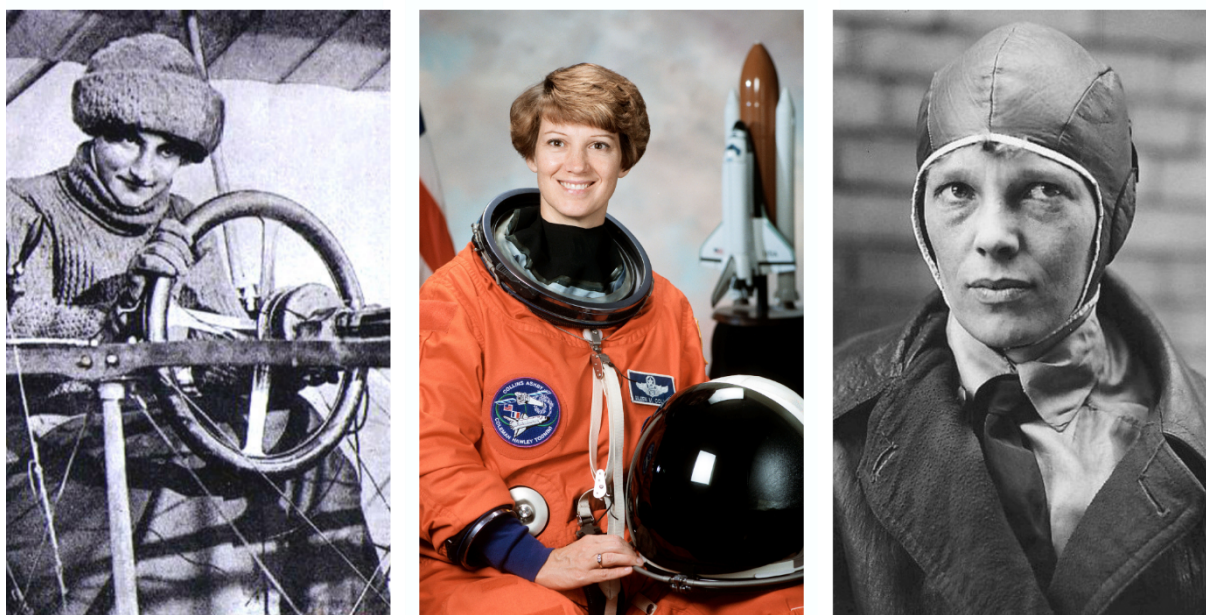


Figure 1 Pioneering women, from left to right: Raymonde de Laroche, Eileen Collins and Amelia Earhart

Interestingly, since the dawn of the aviation sector in the early 20th century, women have comprised most flight attendants (cabin crew). Even today, they represent a staggering 79% of the workforce in this area. This trend underscores a longstanding propensity to align women with roles centred on customer appeal or care.

<sup>3</sup> de Andreis, F. (2023).

<sup>4</sup> A well-known example is the 588th Night Bomber Regiment of the Soviet Union, also called the “Night Witches”, an all-female group of aviators who served the Soviet Air Force between 1942 and 1945.

A survey of the relevant literature unveils stark gender disparities within the aviation sector. According to a 2018 report by the International Air Transport Association (IATA), women constitute a mere 5% of the global pilot population and just 3% of CEOs. Furthermore, only around 8% of CFO roles in the aviation sector are held by women. The underrepresentation becomes even more pronounced when examining the world's Top 100 airline groups, where the percentage of female CEOs, COOs, and CFOs is significantly lower than in other industries. However, a reversal of this trend is evident when looking at HR Directors, with approximately one-third being women, compared to 23% in a broader industrial context (de Andreis, 2023).

Several international initiatives, such as IATA's "25by2025"<sup>5</sup> and the "Women in Aviation and Aerospace Charter"<sup>6</sup>, have been introduced to address these disparities, underscoring a growing recognition of the problem.

**But, which factors dissuade women from participating in the aviation sector?** While several barriers exist, the most significant challenges are deeply rooted in **cultural and stereotypical perceptions of both the sector and women at large**. The deterrents range from psychological, organisational, and sociological to even physical factors. Often, traditional societal norms and patriarchal cultures engender beliefs that certain roles, especially in aviation, are not suitable for women. This mindset fosters assumptions like women can be "airline stewardesses, but never pilots" (de Andreis, 2023).

To reduce these prevailing tendencies, de Andreis' research, backed by numerous interviews, offers a multifaceted strategy:

- Amplifying the visibility of female role models in the industry, leveraging platforms like social media.
- Encouraging more women to consider careers in aviation.
- Implementing financial aid schemes for aviation education and training.
- Developing mentoring programmes that professionally back the female workforce.
- Amplifying communication and awareness about gender diversity and role biases.
- Enhancing the broader public's understanding of the industry.
- Adopting a proactive attitude against discriminatory behaviours, thereby challenging and eradicating deep-seated stereotypes and biases.

The aviation industry's gender imbalance is a testament to the continued marginalisation of women as professionals in many sectors, driven predominantly by cultural factors rather than sector-specific dynamics. Women face several barriers, including a male-dominated environment, deep-seated prejudices, workplace discriminations, challenges in balancing work and personal life, and inadequate representation in media and popular culture. These factors collectively contribute to their underrepresentation in the industry.

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<sup>5</sup> A voluntary initiative aimed at achieving gender balance within the aviation industry, encompassing numerous airlines and industry associates.

<sup>6</sup> Established by the UK Government in 2018, the Charter seeks to enhance the sector's overall diversity and foster a more equitable industry. It champions the advancement of women into senior positions within the aviation and aerospace sectors, striving for gender balance at every level. Several of the sector's leading global entities have embraced the Charter.

## 3 Guideline to foster equal opportunities

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Promoting gender equality is paramount to the ethos of Engage 2. As we endeavour to drive the change, this chapter delineates a set of guidelines for our partners, ensuring that gender equality is woven into every facet of our collective endeavours.

Successful ED&I management requires a holistic approach, considering both the gender balance in all the activities foreseen as well as several actions to promote gender equality in the sector.

The essence of these guidelines is not just to establish procedures but to share a culture that considers gender equality, inclusion and diversity at its core. By integrating gender equality into our processes, events, and boards, we are laying the foundation for a future where diversity and inclusion are not just goals, but the norm.

### 3.1 Selection process

**PhDs and catalyst funds.** As we pave the way for future leaders and innovators in the industry, we are committed to upholding gender balance in the selection of awardees for both PhDs and catalyst funds. To achieve this goal, we will work with several women's aviation associations and networks of female students in the sector. For example, partnerships with organisations such as [Women in Aviation International \(WAI\)](#), the [International Society of Women Airline Pilots \(ISA+21\)](#), the [Sisters of the sky](#) (US based) and the [British Women Pilots' Association \(BWPA\)](#) will be key. These collaborations will help us reach a wider pool of female talent, encourage their active participation in the aviation sector and ensure that they have equal opportunities to contribute to and benefit from our initiatives. Through these associations, we aim to inspire and support women in their pursuit of a career in aviation, thereby fostering a more inclusive and diverse industry.

**Mentoring for MSc students.** The academic world is full of growing talents and as we play our part in shaping the future. Our selection process for the mentoring for MSc students will be inclusive of both male and female students, ensuring diversity in perspectives and ideas. Even for mentoring, partnerships with the above mentioned organisations will play a key role.

### 3.2 Structural equality in boards

**Awards Board and Industry Board.** The composition of both our Awards Board and the Industry Board will be reflective of our commitment to gender equality. Unfortunately having equal representation is still a challenge, but Engage 2 is committed to strengthening women participation in its boards to ensure that decisions and strategies are crafted from a holistic and balanced viewpoint.

Although our commitment is to have gender equality in these boards, it seems still difficult to achieve gender equality in the membership. At the time we are submitting this deliverable, the Award Board lists 6 women over 19 members (30%), while the Industry Board female members are 10, over 44 members (25%).

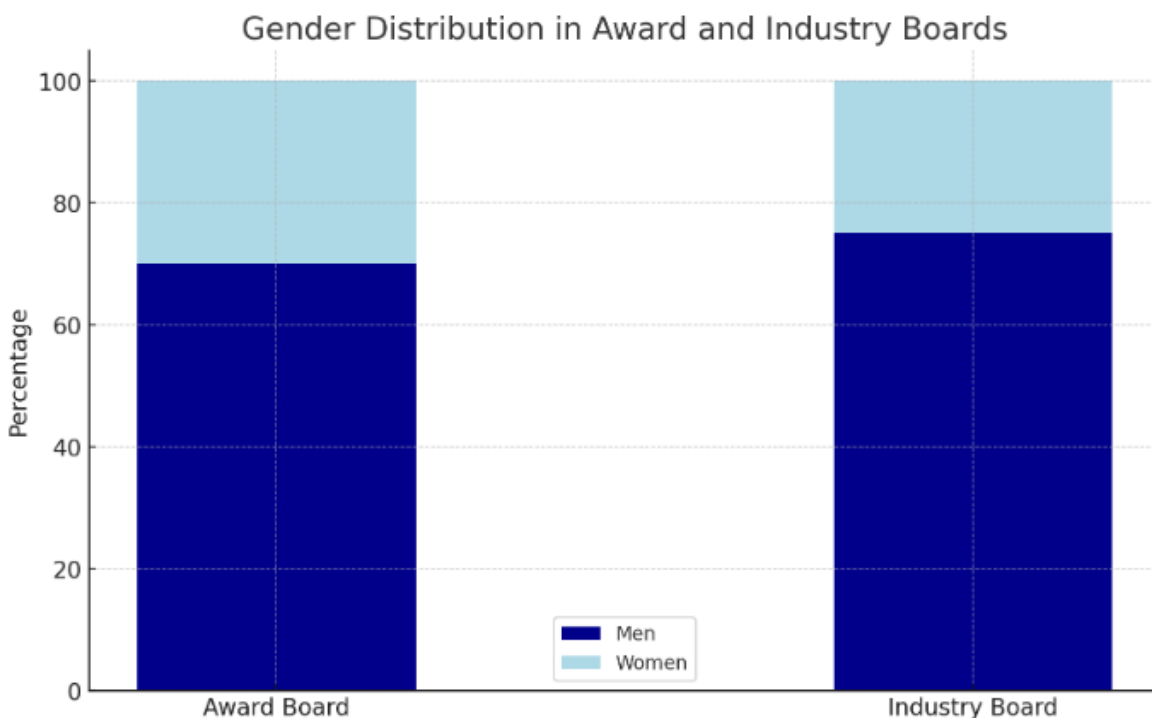


Figure 2 Data visualisation of gender balance in the Award and Industry Boards (update, November 2023)

### 3.3 Events and workshop planning

**Speakers and panellists.** Ensuring that our events and workshops are not just informative but also representative, we will maintain a gender balance when inviting speakers and panellists. This commitment ensures that our audience gains insights from a diverse range of industry experts, and our platforms amplify voices from all genders.

### 3.4 Raising awareness initiatives and synergies with relevant stakeholders

Promoting understanding and driving change extends beyond our immediate project activities. Throughout the lifespan of the project, we will embark on various initiatives aimed at raising awareness about the significance of gender equality. Drawing from the insights detailed in Chapter 2.3, these initiatives will focus on spotlighting the challenges, celebrating achievements, and educating our partners, stakeholders, and the wider community about the need for a more inclusive and balanced industry. To this end, Engage 2 will create synergies with associations of women students like the [Women in Transport initiative](#), the [International Transport Workers' Federation \(ITF\)](#), the [National Women in Transport](#) (Australia based), [The Ninety-Nines, Inc., International Organization of Women Pilots - University Chapters](#) and the [University Aviation Association \(UAA\)](#).

### 3.5 ATM job presentations

As part of our ongoing efforts to highlight the diverse and dynamic world of ATM, Engage 2 foresees the creation of a series of videos which will showcase the day-to-day lives and roles of professionals in the ATM sector.

These videos offer a deep dive into the different aspects of ATM. From air traffic controllers to engineers, from flight data specialists to operations managers, we aim to capture the essence of each role. This initiative is not just about illustrating job descriptions, it is about bringing these roles to life, showing the challenges, the excitement and the critical impact these professionals have on the world of aviation.

A key aspect of this series is the representation of women in ATMs. We are committed to showcasing female professionals, highlighting their experience, expertise and the unique perspectives they bring to their roles. Through interviews and day-in-the-life segments, these videos will showcase not only the technical aspects of the jobs, but also the personal stories, challenges and successes of women in the field. This representation is vital to breaking down stereotypes and inspiring future generations of women to consider a career in ATM.

By giving a platform to the voices of various professionals, especially women, in the ATM sector, we aim to educate and inspire. Viewers, especially those who are still shaping their career paths, will gain a realistic and comprehensive understanding of what working in ATM entails.

To ensure wide reach and accessibility, these videos will be shared across all of our project's online channels. They will also be shown at various events and conferences as an educational and promotional tool. This multi-channel approach will ensure that the insight into the ATM profession reaches a diverse audience, sparking interest and providing valuable information for those considering a career in the field.

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