



**WORKING PAPER**

**ASSEMBLY — 40TH SESSION**

**EXECUTIVE COMMITTEE**

**Agenda Item 25: ICAO Civil Aviation Training and Capacity Building**

**DESIGNING A NEW STRATEGY FOR NEXT GENERATION  
OF AVIATION PROFESSIONALS (NGAP)**

(Presented by Finland on behalf of the European Union and its Member States<sup>1</sup>, the other Member States of the European Civil Aviation Conference<sup>2</sup>; and by EUROCONTROL)

**EXECUTIVE SUMMARY**

The expected growth of the aviation industry may be jeopardised and safety and security compromised if the sector cannot attract, educate and retain aviation professionals. While fully acknowledging the success of the ICAO Next Generation of Aviation Professionals (NGAP) initiative over the last 10 years, this paper supports ICAO's intention to give the NGAP initiative fresh impetus with a new, ambitious and holistic strategy capable of delivering effective tools to deal with the anticipated shortage of professionals.

Such a strategy should be based on a comprehensive data-driven assessment of the problem to then propose a range of effective tools capable of assisting States in making the aviation profession an attractive career choice for a diverse range of professionals while maintaining a global outlook.

**Action:** The Assembly is invited to:

- a) urge all Member States to facilitate removing barriers to the free flow of aviation skills across borders, through standardisation and harmonisation of qualifications, licenses and administrative procedures;
- b) call upon States, international and regional organizations, academia and industry to support the NGAP programme, as one of the integral elements of capacity building, by providing technical expertise and guidance, and resources to help achieve the programme's objectives;
- c) direct the Council to adopt a new NGAP strategy for ICAO that is holistic, data-driven and takes into account the rapid technological change.

Instructs the Secretary General to:

- d) assess and report to the Council in accordance with the NGAP strategy on whether the existing ICAO framework, in particular Annex 1 — *Personnel Licensing*, provides adequate opportunity and a non-discriminatory unbiased access to the aviation sector for women and men;
- e) assess and report to the Council in accordance with the NGAP strategy on whether the existing ICAO framework, in particular Annex 1, is effective in providing aviation professionals with skills needed by the market now and in the future; and

<sup>1</sup> Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

<sup>2</sup> Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Republic of Moldova, Monaco, Montenegro, North Macedonia, Norway, San Marino, Serbia, Switzerland, Turkey and Ukraine.

f)	ensure that all research and data gathered in the context of NGAP is shared with and accessible to all ICAO Contracting States and the industry stakeholders.
<i>Strategic Objectives:</i>	This working paper relates to all Strategic Objectives.
<i>Financial implications:</i>	The activities referred to in this paper will continue subject to the resources available in the 2020-2022 Regular Programme Budget and/or from extra budgetary contributions.
<i>References:</i>	A39-29, A39-30

## 1. INTRODUCTION

1.1 Aviation is a rapidly growing industry that is crucial for promoting global connectivity while supporting economic development and growth around the world. At the same time, the international aviation community has already recognised an existing shortage of skilled professionals in some areas of aviation and the problem could worsen over time if no action is taken. This shortage can jeopardise the expected growth and can compromise aviation safety and security across the world.

1.2 In order to address this very important issue, the ICAO launched the Next Generation of Aviation Professionals (NGAP) initiative to ensure that a sufficient number of qualified aviation professionals is available to staff the future aviation jobs. The importance of NGAP is acknowledged by the Assembly resolution A39-29 and A38-12, Appendix D. At the end of 2018, ICAO announced the extension and strengthening of the NGAP programme and, following the conclusions of the Second ICAO NGAP Global Summit in December 2018, a NGAP Task Force was created with the objective of developing a global NGAP implementation strategy.

1.3 Europe strongly supports the NGAP programme and the development of a new, robust, ambitious and holistic strategy for NGAP, as a means to provide an effective global framework to tackle the shortage of aviation professionals. This paper presents some considerations and proposals on the new NGAP strategy.

## 2. THE NEW NGAP STRATEGY

2.1 The development of the new NGAP strategy needs to be preceded by a clear data-driven assessment of the existing causes and extent of the shortage of aviation professionals. While there is a consensus about the increasing shortage of aviation professionals, the causes and extent of the problem vary across regions and aviation professions. This assessment must also provide forecasts about the likely impact of new technologies (e.g. automation, drones, artificial intelligence (AI), etc.) on the personnel needs and attractiveness of the aviation profession. Only such a solid understanding of the situation can allow that new and effective actions are proposed. At the same time, this assessment should not be an isolated event, but part of a process to continuously monitor changes in the sector and measure the effectiveness of actions taken.

2.2 While regional and other particularities may prevent one-size-fits-all solutions, the new NGAP strategy should avoid piecemeal fixes that, while potentially bringing some isolated benefits in one State, are unlikely to result in competitive and well-functioning regional air transport systems. The range of tools should be effective and proportionate in supporting States in dealing with the shortage of professionals within their jurisdictions and beyond, while maintaining a regional and global outlook.

2.3 Building on the Assembly resolution A39-29, the NGAP strategy should strengthen the engagement of all relevant stakeholders, including the regulators. The overall aim of the strategy should be

to develop effective and flexible tools for analysing the human capital challenges in the air transport industry and to support regions and States to develop their strategies for dealing with the shortage of aviation professionals.

2.4 The NGAP strategy should focus on the entire cycle of how individuals access aviation jobs, how they are trained, and how they are retained in the air transport sector throughout their career. It should also aim to provide a more coordinated, sustainable and holistic support of NGAP initiatives on all levels (international, regional and national). The new NGAP strategy should provide a global forum where regional aspects can be addressed alongside any state-driven initiatives. In addition, the NGAP strategy should keep the global outlook by fostering close cooperation between stakeholders and developing global tools for action.

2.5 The new NGAP strategy should support the following priorities:

2.5.1 **Making aviation jobs accessible and ensuring equal opportunities.** The new NGAP strategy needs to involve a review of the general conditions for accessibility to aviation jobs (e.g. regulation, funding, training availability, employability, working conditions, recruitment bias, etc.). Any identified bottlenecks should be addressed in order to make the accessibility requirements merit-based, proportionate and fit-for-purpose. The NGAP strategy could also explore different routes through which people get into the aviation profession. For instance, the positive role that general aviation leisure flying plays in attracting new entrants to the aviation profession should be considered.

2.5.2 **Creating a diverse, fair and healthy working environment.** The new NGAP strategy should aim to both attract and retain aviation professionals coming from a wide range of backgrounds and representing the global human diversity. In order for the aviation profession to be an attractive career option, it must be free of unfair discrimination or bias. The importance of social rights and fair working conditions must be examined and effective tools proposed. Attractiveness could also be facilitated by introducing work-life balance measures and a zero tolerance policy on abuse.

2.5.3 **Promoting participation of women.** In line with ICAO resolution A39-30, the NGAP strategy should also promote the participation of women in the aviation sector. With half of the world's population made up of women, any strategy must also aim to increase their participation. This includes tackling persisting stereotypes according to which some jobs are more suitable for men (e.g. pilots, technicians) while others are more suitable for women (e.g. flight attendants, human resources).

2.5.3.1 Means to promote participation of women may involve setting up a global and/or regional "Women in transport" action oriented platform, to encourage stakeholders to take measures to strengthen women's employment in aviation and equal opportunities between women and men. That type of platform may be underpinned by promoting the business case for gender equality and by sharing best practice examples. Research shows that companies with balanced workforce and inclusive culture are twice as likely to meet or exceed their financial targets, three times as likely to be high performing, six times more likely to be innovative and agile and eight times more likely to achieve better business outcomes<sup>3</sup>. A gender equality policy facilitates the filling of vacancies and helps to attract talent, it increases companies' public image and clients' satisfaction as well as employees' engagement and retention rate.

2.5.3.2 Examples of measures that can be taken to increase gender balance start with fighting stereotypes at an early age by sending female role models to schools, organising open days and specific traineeships for girls. Recruitment campaigns can also be customised to target women and stakeholders can

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<sup>3</sup> Juliet Bourke, "Which Two Heads Are Better Than One? How diverse teams create breakthrough ideas and make smarter decisions" (Australian Institute of Company Directors, 2016)

work on countering any recruitment bias<sup>4</sup>. Once recruited, women's newcomers can be supported by ad hoc measures<sup>5</sup>. Working conditions should allow both women and men to reconcile family and work<sup>6</sup> and women's carrier progression would have to be monitored and encouraged.

**2.5.4 Encouraging training and adaptation to technological developments.** The new NGAP strategy should identify and tackle any training bottlenecks, whether concerning training availability or its content. The strategy should encourage States to identify factors impeding access to aviation education (such as its cost) in a detailed data-driven approach and devising potential solutions to alleviate them. Close cooperation between stakeholders (academia, regulators and industry, etc.) should be encouraged to better anticipate future training needs and to be able to adapt the educational offer to provide more flexibility and opportunities. The new NGAP strategy should acknowledge the new training needs caused by technological development (e.g. automation, drones, AI, etc.) and its impact on future and current professionals<sup>7</sup>. The strategy should assess competency-based training and new teaching and training methods (e.g. online, virtual, gamification, distance learning, etc.) that are well suited for the next generation of professionals and facilitate life-long learning for existing professionals.

**2.5.5 Fostering a global market for professionals in the aviation sector.** The new NGAP Strategy should foster greater mobility of skills on a global level. The strategy should reflect on how standardisation, guiding principles and harmonisation of training qualifications could provide for greater mobility of a broad range of skills and cross-domain expertise sharing needed in the aviation industry.

**2.5.6 Developing tools for global action and sharing.** The new NGAP strategy should incentivise States to implement effective strategies to attract, educate and retain the next generation of aviation professionals. The strategy should aim to develop tools to facilitate dissemination of knowledge and best practices amongst States. Such sharing is essential to develop the global know-how for the benefit of all.

**2.5.7 Involving all in the process.** States, international and regional organizations, academia and industry should support the NGAP Programme, as one of the elements of capacity building, by providing technical expertise, guidance and resources (human, financial and data) to help achieve its objectives.

### 3. CONCLUSION

3.1 The development of the new NGAP strategy, preceded by a clear and data-driven assessment of the existing causes and extent of the shortage of aviation professionals, would be a major step forward in understanding the scope of the challenge. This new strategy should strengthen the engagement of all relevant stakeholders, including the regulators.

3.2 The new NGAP strategy should focus on the entire cycle of how individuals access aviation jobs, how they are trained, and why they remain in the aviation profession throughout their career. Promotion of women participation should be actively encouraged. In addition, this strategy should keep the regional and global outlook by fostering even closer cooperation between different stakeholders and developing regional and global tools for action alongside any state-driven initiatives.

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<sup>4</sup> E.g. by organising training sessions with recruiters, by drafting gender neutral vacancies, by hiding gender information in the early phases of the recruitment process, by setting women's hiring targets, etc.

<sup>5</sup> E.g. with coaching and mentoring programmes, women's networks.

<sup>6</sup> E.g. using regular contracts which enhance women's protection in case of maternity, giving women a certain control over their rosters, adopting a zero tolerance policy to fight harassment and violence and reporting on the gender pay gap, etc.

<sup>7</sup> Research is ongoing at European level on these issues (e.g. <http://skillfulproject.eu>)