

The aviation leaders gathered to discuss this year topic: Education and Performance in Aviation.

Dr Kostas Iatrou, Director General of Hermes, stressed that given both the traffic growth and the phenomenal changes brought by automation and artificial intelligence, the air transport industry needs to grow its awareness vis-a-vis these challenges, to pro-act with future needs in mind and this is making "education and training its top priorities"

Keynote addresses

Henrik Hololei, Director General for Mobility and Transport of the European Commission, welcomed the theme of the Forum because it focused on "the need to make sure that the best and the brightest are continuously attracted to this sector". He talked about the technological development of the years to come, from drones to artificial intelligence, which "will bring fundamental change in the way we go about our lives". The aviation sector needs to "ensure that these existing technological developments will be stifled by the lac of human skills ready to operate them and that will not undermine the social and working conditions of those who are working in the industry". He talked about "fit-for-purpose aviation professionals" and the need to "change our global approach to aviation training methods from a traditional qualification-based approach to a more competency-based method" that will "support continuous learning and performance improvement"

Dr. Aliu highlighted the current rate of traffic growth confronting global aviation and the many challenges it poses for the next generation of aviation pilots, technical specialists, managers and leaders, stressing that "while this growth in connectivity is highly beneficial to global socio-economic prosperity, it also carries with it some critical challenges given that increasing flight and passenger volumes need to be properly assessed and managed to maintain the historically remarkable safety and efficiency of our network."

"This is why the enhancement of regulatory capacity, and the modernization of aviation infrastructure and human resources development approaches, has become critical and why we needed to prioritize the effective alignment of national and regional aviation development plans with ICAO's Global Plans," Dr. Aliu emphasized.

Alexandre de Juniac, Director General and CEO of IATA, highlighted three areas where he sees as challenges in finding, retaining and developing the people that "we will need to take our industry—the business of freedom—into the future":

- -Positioning aviation as a responsible industry and a good career opportunity;
- -Finding learning and development resources in developing nations; and,
- -Balancing gender across all aspects of aviation and at all levels of seniority.

He stated that there are two common elements in all three of these.

- The first is the need for urgency. It will take time to achieve results in these areas. "But that is no excuse to delay action. The world in which we do business is rapidly changing and we need a workforce that is developing at an equal if not greater pace"
- The second is the need for a multi-stakeholder approach to finding solutions.
 - "No single entity will be able to deliver success".

He commended Hermes—a multi-stakeholder leadership forum—on taking up the topic of Education and Performance as its theme for the year.

Angela Gittens, Director General of ACI World spoke on the importance of training and recruitment in the aviation sector at the Hermes AGM & Leaders Forum, dedicated this year to Education and Performance in Aviation.

"According to the latest ACI World Airport Traffic Forecasts global passenger traffic is expected to double to 16.97 billion by 2034," she said. "This is based on a projected growth rate of 4.3% per annum and to 20.9 billion passengers by 2040, based on a 4.1% compounded annual growth rate.

"Meeting future growth also requires investing in a skilled, committed and diverse talent pool. I'm proud to report that <u>ACI Global Training</u> is the world's leading provider of airport management and operations education.

"We offer executive leadership, professional accreditation, subject-matter competency and personalized inhouse training courses, with delivery in the classroom as well as a wide range of web-based coursework."

Session 1

The first session on "What are the challenges set by automation and artificial intelligence for the future of aviation education and training" was started off with the moderator Alex de Gunten of HEICO stating that after many years of crises aviation can be proud of both its growth and safety records. This profitability is necessary for sustainability. Still there are many problems since it takes longer to go to and through the airport. The significant technological development in the form of new engines and new aircraft is expected to cause major disruption in the way aviation work and there has been less advancement in the training of personnel to deal with these changes.

Captain Aysha Al Hamili, UAE permanent representative to ICAO Council, stated that the aviation has always been an industry that embraces technological evolution but this time things are a bit more tricky. Thanks to machine learning and artificial intelligence. It is technologically possible to have one-pilot or nopilots flights which have been proven to be better, faster and safer, but customers are not psychologically ready to accept it. Only the younger generation is more open to such changes.

In his turn, Florian Guillernet stated that technology has some problems since the new energy sources are more expensive and complicated to produces and although the digital transformation is kicking in, the industry has been less imaginative in how to bring all these innovations in operation and he mentioned the example of the SESAR project which although it promises better trajectories it faces difficulties in moving into operation. Another problem mentioned is the conservatism and the complacency of the industry and the old system of financing. The regulators should support the developments and act as enablers and incubators to fight the silo effect as the new technologies will improve the system across the whole chain.

Another interesting point raised is that the new generation Y and Z accustomed to information sharing need new ways of teaching which represent a big challenge and this new way of teaching should be tailored to the needs of the industry. These new technologies create huge amount of data raising the question whether these data should be open to all or should there be restricted access since whoever has instantaneous access to data would be able to analyze.

Session 2

In the second Session focusing on "How education and industry dynamics shape the future of industrial relations and human resources management in the aviation sector" the moderator Professor Andreas Papatheodorou, Editor-in-Chief of the Journal of Air Transport Studies stated that automation promises higher output with lower cost but there are long term technical issues involved because these new aircrafts need new pilots and new engineers. The industry seems unable at the moment to attract "the best and the brightest" in aviation related jobs putting the future at risk. He also referred to the need to achieve gender diversity in aviation and to call in different segments of the population to participate.

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Dr Yiannis Paraschis, CEO of Athens International Airport, was the first to speak and he talked about the experience of the Athens International Airport which required creating an airport company from zero basis. It was difficult to draw personnel from the market and the airport to create the skills, to support and to train the people to run the airport, which was costly. Athens International Airport boasts gender diversity as 40% of the personnel are females throughout the hierarchy except for the top 14 positions. The majority have come from other industries and become aviation experts, so there has been an osmosis between the various fields and the traditional aviation career. The size and the character of the market have given airport significant gravitas and have enabled it to attract top employees of the country.

He stated that an airport is a "supermarket of services" ranging from aviation to consumer service and technical support, which means that it offers a versatile profile of options and career opportunities for both generalists and specialists. He finally added that aviation business asks from staff to be able to think critically and creatively and to develop communication and cooperation skills.

The second panelist, Luis Felipe de Oliveira, Executive Director of ALTA, continued on the same line and stressed that aviation is moving from technical skills and the stem education towards "soft skills", that's why there are many pilots nowadays pursuing MBAs. He pointed out that young people are not interested today in technical engineering or in working in a mature even if it is global industry, in other words working in aviation is no longer attractive and exciting the way flat-hierarchy start-ups are.

He suggested that aviation should approach young people when they are still at high school and they are about to chose their studies.

On the issue of gender balance he stated that this depends on the country as there are countries such as Thailand where women airport executives are more than men. But most of the time women come from a legal, marketing or communication background and not from a technical one. He added that experience has showed that the more the mix of cultural and gender background of the training programs or work environment the better the performance and such variation enables participants and coworkers to develop strategy to learn from each other and to focus on best practices.

Another point he raised is given the changing demographics and fast pace of trend evolution education should move from concentrating on qualifications to focusing on competence. Focus on competence means the importance lies on whether you can do what you have to do and that negotiating skills are paramount. In other words, knowledge has to be assessed in context.

He finally stated that by now aviation performance moves around four pillars: -excellence of assets -proper system management, that is optimization of the use of assets -excellence of human capital with competency requirements changing -governance structure and commercialization.

Dr Pierre Coutu, Program Executive of AMPAP program stated first that sustainability is a commercial imperative but now sustainability is not only the economic ones that focuses on profit and generates growth and wealth but also an environmental one that put limitations for society and the environment. He blamed the endoscopic tendencies of the transport- not only aviation-industry for losing the "glamour" of past times and its inability to attract young people and called for a social inclusive growth.

A participant talked about the new concepts of marketing, the 4 Cs: customer solution instead of product, cost and consumer instead of cost, convenience instead of place and communication instead of promotion and urged the aviation sector to apply these concepts to achieve sustainability.

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Presentation

In his presentation entitled "*Responding to the needs of the next generation of aviation professionals... sustainably*" Michael Gill, Executive Director of ATAG, started off by referring to the distinctive character of the millennials and Z generation, the pool of aviation professionals and who represent 1/3 of the global workforce. He pointed out that they live in a completely different world and have different priorities. They are people who say yes to everything new, they can do two things at once, are highly skilled, confident enough to challenge established norms and have social and environmental consciousness. They are not only interested in a decent salary but they also value flexibility, cultural and educational diversity and travel opportunities and they are proactively seeking out to satisfy these. These generations even in the emerging markets are committed on the sustainability agenda, supportive of means to reduce climatic change and want to bring about tangible change to the world.

He called the aviation industry to engage with the new generations, educational managers to adapt to their aspirations and trends so as convince them that airports and aviation are a great place to build a career because it is a sustainable industry that supports and fosters cultural and gender diversity. "Sustainability has to be the key" to make aviation a "magnet for the workforce"

Session 3

The third Session dealing with "Who will bear the cost of education and training in the aviation sector" was moderated by Jeff Poole, Director General of CANSO and Board Member of Hermes - Air Transport Organisation who stressed that since it is essential for the aviation business to maintain talented professionals, the industry needs to decide what the future requirement will be. It is in the common interest of the whole aviation chain and all stakeholders to take initiatives on a local, national, regional and international to proceed to meaningful and effective dialogues and to set a common vision. "We will go fast if we go together".

Alex de Gunten of HEICO, stressed that it is essential to find ways to link academia with the industry as until now they move on concentric cycles, they intersect at some point but they remain separate. Forums on bilateral and multilateral level are needed to relate the stock of knowledge with the know-how of the business to achieve tangible results. This can be achieved through the meaningful work and education partnerships.

Dr Michael Kerkloh, President and CEO of Munich Airport and Chairman of ACI Europe presented Munich Airport's system of training. He stated that the airport has its own training academy and every year they receive 3,000 applicants who follow 35 different training programs and from these 3,000 100 become employees of the airport. On top of that, they have established programs with Frankfurt Airport and academia, a joint program with Lufthansa and cooperation with other quality "best" airports such as Singapore, Beijing and Johannesburg, which includes management exchange.

He stressed that the training of pilots is long and costly and there is currently a shortage of pilots and mechanics. Airlines traditionally have depended on the airforce to draw technical personnel. He called governments and the industry to help and encourage the education and training of pilots and mechanics.

Professor Triant Flouris, Provost of the Hellenic American University, raised the issue of the outdated curriculum that is still the same of that of 30 years ago. He stressed the need to both update the curriculum and use resources efficiently. He underlined the difference between license and education and called regulators to remove the artificial barriers that do not allow pilots to work everywhere and he mentioned the example of Brazil, where one need to be a Brazilian citizen to fly in Brazil.