



Economic demand for labour in the aviation sector

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Appreciation

This report has been drawn up through the compilation of a wide range of statistical information and a broad range of qualitative information, opinions, and views of a number of operating stakeholders in the industry.

We are grateful to all participants in the process, including officials at the National Statistics Office, senior executives in the Civil Aviation Directorate of Transport Malta and at Malta Enterprise, and senior managers and directors of multiple private operators in the industry who participated in our fieldwork, made themselves available for discussions, and disclosed information and opinions related to their companies' operations and future plans. We also acknowledge the significant contributions of members of the Aviation Advisory Committee, who gave valuable contextual contributions and feedback.

Demand for labour in the aviation industry

Executive Summary

The aviation industry directly employed 5,112 persons during 2019.

Air transportation accounted for 39% of employment, followed by Cargo handling providing 24%, Service activities provided 19%, and Repair and maintenance with 18%.

Full time jobs accounted for 97.5% of all employment in the aviation industry.

The average enterprise operating in the aviation industry employed 39 people, operators in the repairs and maintenance segment were the largest.

Technicians accounted for 31% of employment in the industry, clerical and service jobs made up another 23%, managerial and professional jobs accounted for a further 16%, and operators/drivers 12%. Elementary occupations accounted for a further 11%, while trade and related occupations made up the remaining 7%.

Employees with post-secondary education make up the majority of the industry's workforce with 71.4%. The industry workforce has a higher level of education when compared to the average for the Maltese workforce.

Demand for labour in the aviation industry

Executive Summary

COVID-19 had a negative impact upon operators and upon recruitment in the aviation industry.

The COVID impact resulted in declining operations, hence declining cash flows. Most operators managed the employment situation by recourse to the government wage support grants.

A number of operators are expecting to commit to significant investment projects in the coming months, which will include expansion of capacity in diverse segments, and the acquisition of additional aircraft.

There are indications that a number of new jobs are anticipated to be created in 2022.

Operators in niche segments, such as drone operations or training institutions, are also anticipating new recruitment in this timeframe.

Demand for labour in the aviation industry

Executive Summary

The industry demands a very broad range of diverse skill sets, ranging from engineering, technical, managerial, professional, regulatory, craftsmanship, dispatch operations, charter experience, aircraft management skills, finance and office administration, hospitality, language and interaction skills, inter-cultural and soft skills.

Operators believe that the market is unable to satisfy demand for graduate level personnel.

Legal and advisory firms likewise experience challenges in recruitment which raises the cost of attracting talent, necessitating the recruitment of professionals outside Malta and the costs of relocation.

There is a market need for persons qualified in safety management, safety and regulatory auditing, and regulatory compliance.

Client relations and hospitality are very important skills in the industry, language abilities and cultural knowledge are equally important. Technical knowledge is key in various areas, not solely for pilots and engineers, but also in dispatch, operational control, ground operations, continued airworthiness and other segments.

Demand for labour in the aviation industry

Executive Summary

The industry is expecting the introduction of specific aviation related modules in graduate courses.

Operators expressed reservations about MCAST: the institution may be short on resources and has been losing experienced instructors to industry.

It is perceived that the University does not reach out to the DCA or to the industry to research what is needed in the market

The use of virtual reality, or of internet-based training systems, is becoming common in the industry.

Apprenticeship schemes are important to the industry. Apprenticeships can also enable practitioners to gain a license to practice in a regulated profession.

Operators encounter a mismatch of expectations when matching new recruits to junior positions in their organisations.

Demand for labour in the aviation industry

Executive Summary

The workforce is increasingly becoming more digital (data, electronic work orders and online manuals).

Training does not keep up with the rate of emerging skills required for new equipment and technologies (3D printing, CNC, artificial intelligence, robotics).

Educators do not have access to expertise, newest technologies and priority equipment.

Recruitment processes and approaches within the industry span the use of recruitment agencies, online recruitment advertising, and the use of networks of contacts.

Recruitment processes entail a significant cost.

Demand for labour in the aviation industry

Executive Summary

A number of new initiatives have been suggested, which could stimulate further growth of the aviation industry and generate additional demand for labour. These initiatives include:

- further evolution and expansion of apprenticeship schemes, as a means of attracting and introducing younger employees and embarking them on skills development paths.
- the setting up of a dedicated front office to facilitate administrative processes in more complex situations, serving as a front office and helping the industry to broaden its horizons in business development.
- additional investment in the aerodrome, and specifically in increased aircraft parking space and an engine run bay, that would be an important expansionary stimulus to the industry.

Introduction and context

MB Economics Limited was engaged by the Ministry for Transport, Infrastructure and Capital Projects to compile a profile of demand for labour in Malta's aviation industry.

This report has been based on the terms of reference and methodology set out in our proposal dated 5 October 2020.

Much of the data and information set out in this report have been collected from the National Statistics Authority or from operators in the industry. Our terms of reference did not entail a review of the veracity of this data. MB Economics Limited does not make any warranty about the completeness, reliability and accuracy of this data.

Introduction and context

Towards an aviation industry strategy

To ensure that the aviation industry in Malta continues to thrive, a multi-faceted national strategy is required.

This will need to be addressed at a Government-Industry level as it requires a long-term industry perspective which individual companies cannot provide.

In the absence of such a strategy we see growth coalescing around larger companies in the short term, at the expense of small and medium businesses.

A national industry strategy would take stock of the issues being faced by the industry, and to facilitate the taking of decisions that will guide the availability of resources in the coming years.

Labour is the critical resource underpinning this industry. A strategy for the aviation industry will need to take into account the demand for labour, and resolve difficult decisions related to the supply side. □

Introduction and context

Approach and method

In approaching this engagement, we have relied on official statistics and polled the significant expertise and experience in the aviation sector.

We have compiled data from the National Statistics Office and from Job-plus to reflect the diverse industry classifications of the aviation industry.

We have met and discussed the industry with critical stakeholders, including organisations in the regulatory, operational and advisory sub-sectors.

In approaching our fieldwork, we compiled a semi-structured questionnaire framework. The framework set out the basic areas of inquiry, comprising recent employment trends, the impact of COVID-19, anticipated demand for new recruitment, skill requirements and skill profile in demand, and the respondent's own programmes of training and upskilling. The questioning framework allowed the interviewer to develop and pursue areas of inquiry as they arose within the interview.

A list of licensed operators within the industry formed the basis of the operator population. Fieldwork was based on a sample of operators, distributed cross sub-sector categories. A sample population, and a pool of reserve sample targets was drawn up. Sampled organisations were identified in a manner to preserve the distribution of large, medium sized, small and micro enterprises in employment size, apart from the distribution across sub-sectors.

Introduction and context

Approach and method

Our fieldwork took the form of a questionnaire targeting a large sample of entities, followed by subsequent detailed discussions with a smaller sample of entities to deepen our understanding of the considerations.

The prevailing COVID-19 restrictions limited the ability to interact with stakeholders of the industry, but the fieldwork was completed within the boundaries of approved precautions.

The fieldwork was carried out in the context of an extraordinary high prevailing level of uncertainty. More than 50% of respondents pointed out that at the time that fieldwork was being conducted, respondents were still uncertain about the direction and duration of future trends in the global aviation sector.

No specific reliable quantitative information could be compiled about the size and timing of expected future manpower recruitment processes. The prevailing uncertainty meant that quantitative results would not be robust or reliable and analysis of results is restricted to qualitative information.

The aviation industry

Aviation is a cross-cutting activity, underpinning a multitude of diverse economic sectors.

Inevitably, the common perception of the aviation sector is that it comprises the operations of airlines and airports, but is also at the core of tourism, freight, and business activities.

For the purposes of this report, the industry has been divided into sub-categories, that reflect a different orientation in purpose and function.

The sub-categories of the aviation industry serve to highlight the breadth of career opportunities offered by the industry, and the wide scope of skill sets in demand by diverse operators.

The aviation industry

Sub-sectors and business lines

Due to the diversity of activities within the industry, aviation is not specifically identified within the NACE classification structure.

We envisage the core of the aviation industry to comprise a number of sub-sectors, spanning over a combination of manufacturing and service activities:

- The provision of passenger and freight air transport activities (NACE 51.10 and 51.21)
- The repair and maintenance of aircraft and spacecraft (NACE 33.16)
- Service activities incidental to air transportation (NACE 52.23)
- Cargo handling activities (NACE 52.24)

The aviation industry

Sub-sectors and business lines

The provision of passenger and freight air transport activities includes:

- the transport of passengers by air over regular routes and on regular schedules,
- charter flights for passengers,
- scenic and sightseeing flights,
- transport of freight by air over regular routes and on regular schedules,
- non-scheduled transport of freight by air, but
- excluding the rental of air transport equipment without operator.

The aviation industry

Sub-sectors and business lines

The repair and maintenance of aircraft and spacecraft includes:

- the repair and maintenance of aircraft,
- repair and maintenance of aircraft engines, but
- excludes factory conversion, factory overhaul and rebuilding of aircraft.

The aviation industry

Sub-sectors and business lines

Service activities incidental to air transportation includes:

- operation of terminal facilities such as airway terminals etc.,
- airport and air-traffic-control activities,
- ground service activities on airfields etc.,
- firefighting and fire-prevention services at airports, but
- excludes cargo handling activities.

The aviation industry

Sub-sectors and business lines

Cargo handling activities includes:

- loading and unloading of goods or passengers' luggage irrespective of the mode of transport used for transportation,
- stevedoring, but
- excludes the operation of terminal facilities

Labour in the aviation industry

The demand for talent in the aviation sector is diverse and competitive.

The sector is a constantly changing industry that is heavily regulated and employs skilled individuals.

Industry growth and workforce demographics are driving job creation and employment in the industry.

Operators complain about occasional market imperfections, when the supply side fails to satisfy the demand for labour.

Changes in technology and the UK's exit from the European Union are two factors which could impact the sector in the coming years, so anyone looking for a career in aviation should be aware of how it may evolve.

The distinction between direct, indirect and induced effects

Economists distinguish between direct, indirect and multiplier levels in analysing activity by an industry

- Economists distinguish between direct, indirect and multiplier levels in analysing activity by an industry
- Direct employment refers to the jobs within operators directly engaged within the delivery of flight, transportation, aircraft maintenance, handling, and flight training.
- Indirect employment applies to employment in entities providing services to the operators directly engaged within the aviation industry.
- The induced employment impact represents the response in the wider economy to an initial change. Economists typically consider the jobs supported by household spending of employment income.
- The scope of this report is limited to direct employment.

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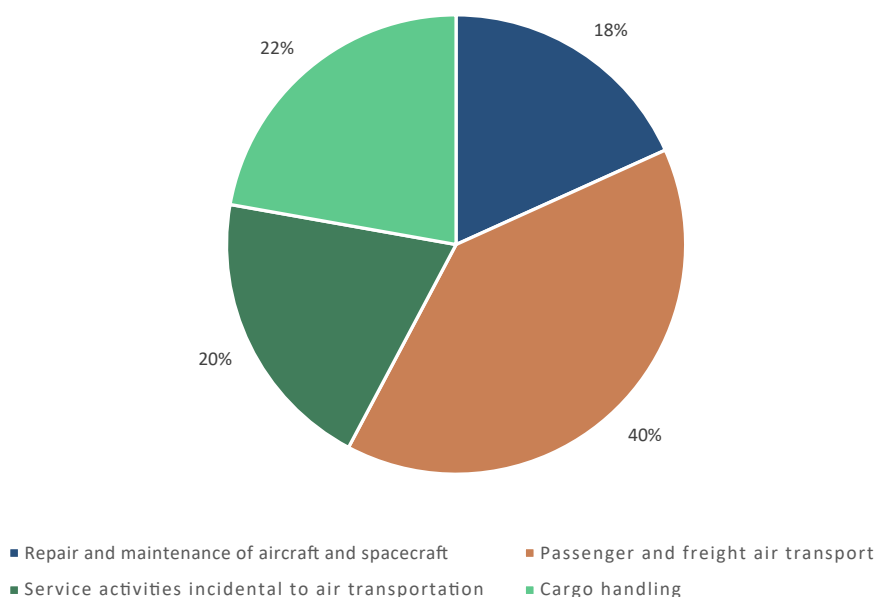
Labour in the aviation industry

Employment levels

Aviation and aerospace employed 5,153 persons during 2018, rising to 5,642 in 2019.

Air transport of passengers and freight accounted for 40%, cargo handling, repair and maintenance and other service activities are similar in size in employment terms.

Employment in the aviation industry 2019



Labour in the aviation industry

Employment levels

At 5,642 employees in 2019, the aviation industry accounted for around 2.2% of total direct employment in the Maltese economy.

Sub-sector	Persons employed	
	2018	2019
Repair and maintenance of aircraft and spacecraft	938	1,030
Passenger and freight transport	1,986	2,229
Service activities incidental to air transportation	982	1,130
Cargo handling	1247	1,253
Total aviation	5,153	5,642

Source: SO BR and SBS

Labour in the aviation industry

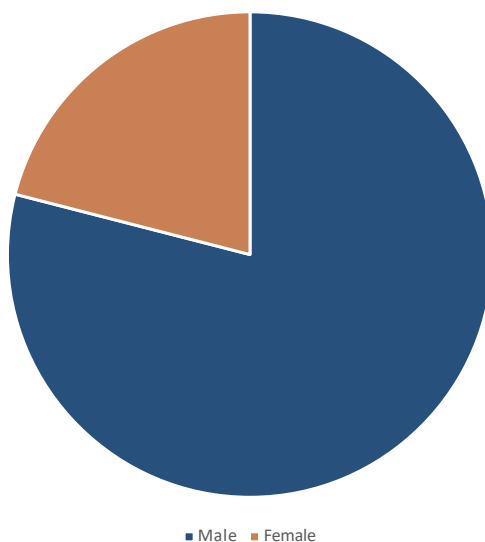
Gender imbalance

The aviation sector suffers from a significant gender imbalance.

Males account for 79% of all employment in the aviation sector.

There is an obvious opportunity for the industry to tap into the female labour force, and for females to explore opportunities in the industry.

Distribution of manpower by gender



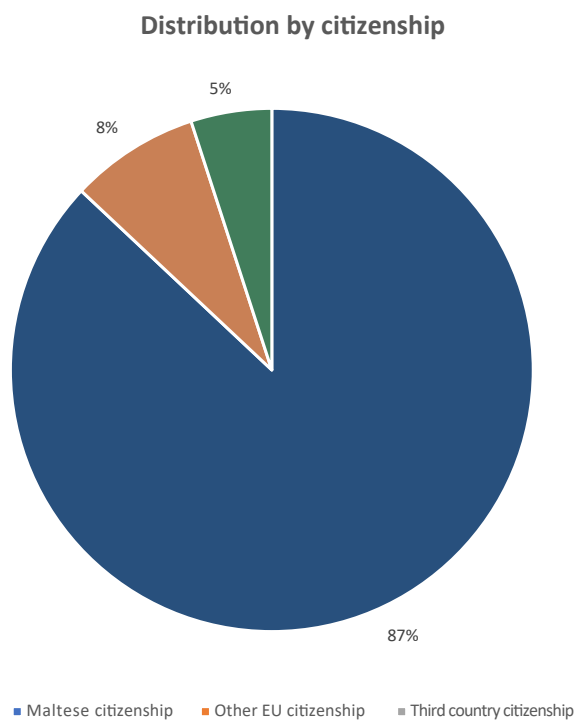
Source: Jobsplus

Labour in the aviation industry

Employment distribution by citizenship

EU citizens account for 95% of employment in the aviation sector.

Employees holding Maltese citizenship make up the largest share of employment in the sector.



Source: Jobsplus

Labour in the aviation industry

Types of employment

Most jobs (89.5%) in the aviation industry are full-time jobs, with part-time employment accounting for 10.5% of total employment in the industry.

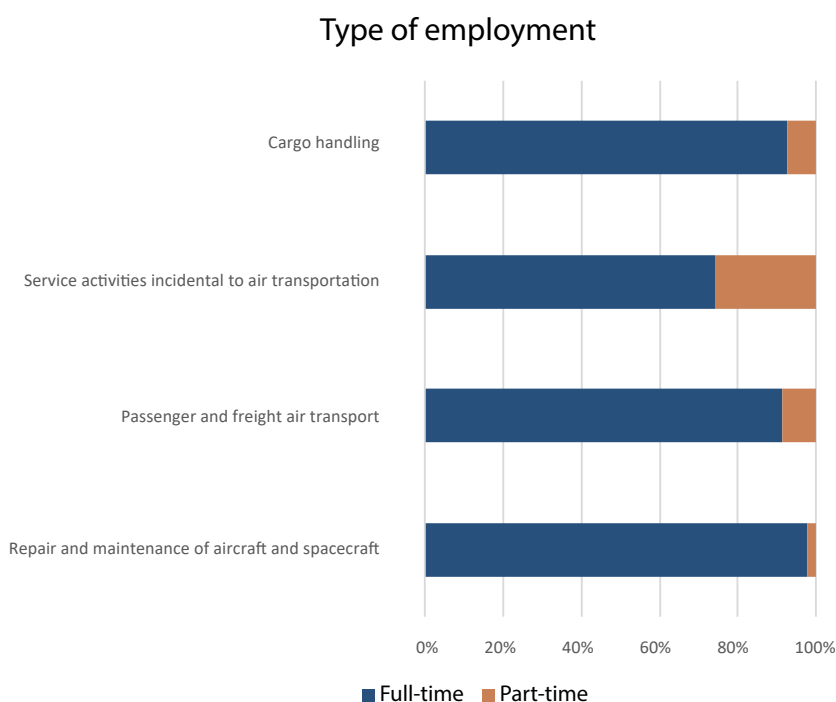
Sub-sector	Full-time	Part-time
Repair and maintenance of aircraft and spacecraft	97.8%	2.2%
Passenger and freight transport	91.5%	8.5%
Service activities incidental to air transportation	74.2%	25.8%
Cargo handling	92.8%	7.2%
Total aviation	89.5%	10.5%

Source: SO BR and SBS

Labour in the aviation industry

Types of employment

Part-time employment is significantly more common in Service activities incidental to air transport, where 25.8% of all employment in the sub-sector is part-time. Part-time employment for the industry average stands at 10.5%.



Labour in the aviation industry

Size of employer organisation

The largest organisations in the industry are in the Repair and Maintenance sector, where the average operator employs 94 people. Entities in the air transport sector employ an average of 79 people.

Service activities and cargo handling operations are typically smaller in average employment size.

Size of enterprise by average employment

Repair and maintenance of aircraft and spacecraft	94
Passenger and freight air transport	79
Service activities incidental to air transportation	43
Cargo handling	17
Total aviation	39%

Source: SO BR and SBS

Labour in the aviation industry

Hierarchical distribution

On average, non-manual jobs account for the major share of total employment in the industry.

Hierarchical distribution	Repair and maintenance of aircraft	Passenger and freight air transport	Service activities & Cargo Handling
Highly skilled non-manual jobs: includes senior officials and managers, professionals and technicians, and associate professionals.	58.1	47.5	30.4
Low skilled non-manual jobs: includes clerks, service workers, and shop and sales workers	n/a	34.0	17.6
Skilled manual jobs: includes craft and related trades workers, plant and machine operators ,and assemblers	25.8	n/a	32.2
Elementary occupations	n/a	13.1*	19.9
Total	100.0	100.0	100.0

Source: NSO Labour Force Survey (LFS 2019)

Date is provisional

Labour in the aviation industry

Hierarchical distribution

Highly skilled non-manual occupations make up significant shares of total employment in each of the sub-sectors of the industry.

Skilled manual jobs are typically very important components of employment in the Repair and maintenance and Service activities sub-sectors

Clerical and related service occupations are particularly important in the air transport sub-sector

Most of the Operators and drivers are employed in the Cargo Handling sub-sector, while Elementary occupations are distributed primarily across air transport, cargo handling, and to a lesser extent, other service activities.

Labour in the aviation industry

Educational attainment

Employees with post-secondary or tertiary education make up the majority (65%) of the industry's workforce. This share was only 48.5% of the Maltese workforce in Q1 of 2019

The industry workforce has a higher level of education when compared to the average for the Maltese workforce.

Educational attainment	Secondary or lower	Post-secondary MQF 3 to 4	Tertiary. MQF 5 to 8
Repair and maintenance of aircraft	16.6%*	20.6%	56.8%
Passenger and freight air transport	57.7%	49.6%	27.4%
Service activities & Cargo Handling	25.7%*	29.8%	15.8%*
Total aviation	100.0%	100.0%	100.0%

Source: NSO Labour Force Survey (LFS 2019)

* Data is provisional

Employees with a Post-secondary (MQF 3 to 4) qualification make up around 36% of total employees in the aviation industry, as compared to 26.6% in the broader 31 economy.

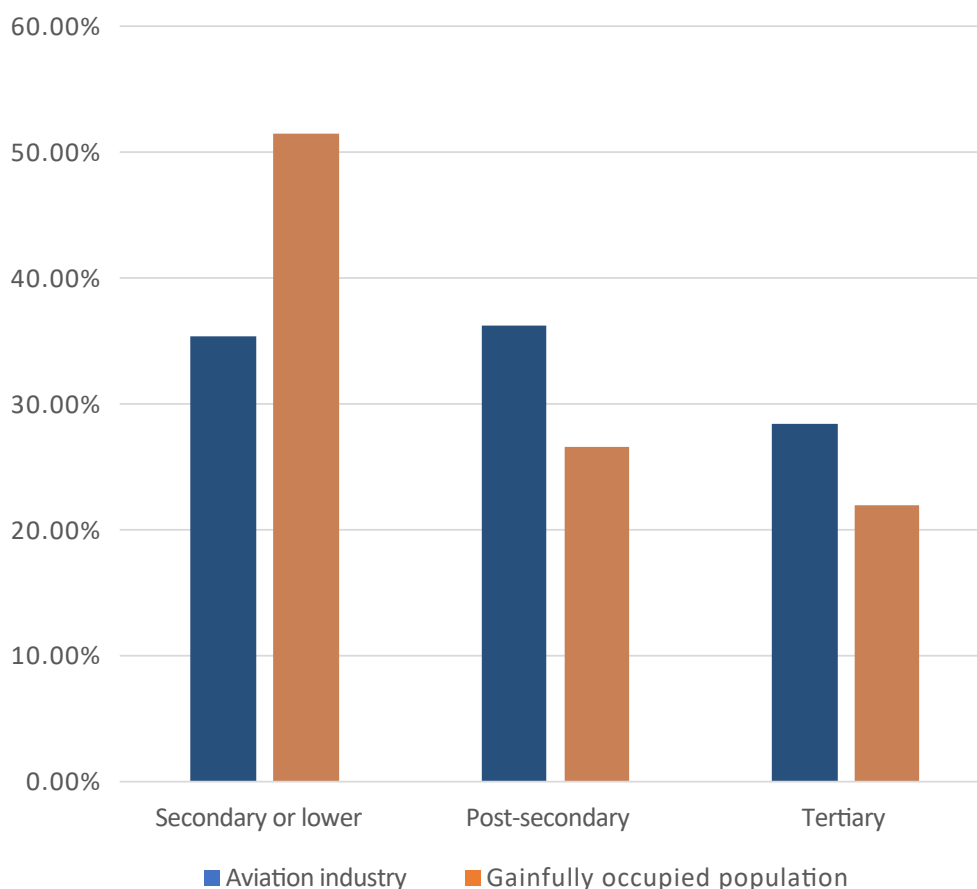
Labour in the aviation industry

Educational attainment

When compared to the distribution of educational attainment across the economy, the aviation industry generates a slightly higher proportion of jobs demanding tertiary qualifications.

The largest differences relate to the proportions of post-secondary and secondary or lower educational standards. The aviation industry generates a much higher proportion of better qualified employment requirements than the broader economy.

Highest educational attainment



Labour in the aviation industry

Average direct labour cost

The average direct labour cost per employee in the aviation industry stood at just under €36,000 in 2019.

Direct labour cost includes all emoluments and employers' NI contributions, the denominator includes both full-time and part-time employees.

Direct labour costs increased by 4.2% between 2018 and 2019 in the Repair and maintenance sub-sector. Changes in other sub-sectors are significantly influenced by structural changes in the sub-sectors.

Average direct labour cost	2019
Repair and maintenance of aircraft	33,239
Passenger and freight air transport	42,849
Service activities & Cargo Handling	30,717
Total aviation	35,970

Source: NSO Labour Force Survey (LFS 2019)

Hiring requirements in the industry

We have had a response to our questionnaire from business units distributed across multiple sub-sectors and niche segments of the industry. We have followed up the questionnaire with more detailed discussions with a sub-segment of operators, and we set out in this section a mix of quantitative and qualitative information that reflects a profile of industry requirements in the labour market.

Operators in different segments of the industry have indicated different aspects of their anticipated hiring requirements. These aspects comprise:

- the impact of COVID-19 upon industry operators,
- a demand for several employees, that will form the basis of forthcoming recruitment initiatives,
- a requirement for a diversity of skills and qualifications that will need to be satisfied in forthcoming recruitment initiatives,
- a requirement to deepen models of training and employment, especially for more development of apprenticeship models.

Hiring requirements in the industry

The impact of COVID-19

Based on feedback we have received from the industry, COVID-19 had a negative impact upon operators and upon recruitment in the aviation industry.

Obviously, the impact of the pandemic differs across sub-sectors. For example, the impact of mobility restrictions on passenger air transportation was very high. The impact of pandemic restrictions on the freight transportation sector was less significant - in certain respects it could be argued that the volume of freight increased as internet purchasing increased.

We are informed that at the beginning of the pandemic, companies in the aviation industry, especially among MROS and AOCS, sought to retain their compliments. As the pandemic lengthened, operators started to reduce hours and eventually downsize.

This situation did not materialise, or did so to a lesser extent, among cargo operators and in niche segments such as business jets.

Hiring requirements in the industry

The impact of COVID-19

Respondents claimed that the COVID impact resulted in declining operations, hence declining cash flows. Most operators managed the employment situation by recourse to the government wage-support grants.

Operators informed us that the impact of COVID-19 on the broader industry led to some closure of businesses, or the dismissal of employees. Other operators limited job shedding to administrative staff, and implemented hourly reductions leading to labour cost reductions. One operator stated "a major reactive job and cost saving measure we undertook was to change the work time system".

Operators claimed that while not dismissing employees, companies were forced to make restrictions on vacation leave and overtime.

Operators traditionally adopted business models where direct employment is combined with the use of contractors. This is mainly attributable to the wide range of skills and experience required on project work.

Project-based work experienced a particularly negative impact due to many projects being put on hold or cancelled. Operators in the industry reacted by lowering investment prospects, with many initiatives being postponed or cancelled.

Hiring requirements in the industry

Forthcoming demand for new employees

Operators emphasised that they primarily look for persons with a passion for the industry. There is a commonly-held perception that a person passionate about aviation is committed to a long term career in the industry.

We are informed that opportunities in aviation, mainly in technician jobs, were being promoted during 2019, in the context of a highly competitive labour market. Such recruitment was not conditional upon prior training. While training programmes attracted significant interest, a substantial number of individuals dropped out of the programmes before completing training, presumably attracted by more immediate opportunities elsewhere.

Different segments of the industry exhibit seasonal demand, with scheduled air transportation typically peaking during summer and festive periods, while other sectors sustain very high levels of activity during winter, postponing training and upskilling programmes to the summer months.

Hiring requirements in the industry

Forthcoming demand for new employees

There is still considerable uncertainty about the timing, speed and extent of the recovery in aviation. Operators are still making hesitant assumptions about demand in 2021/22.

Operators informed us that as the business starts to recover slowly, operators expect both traffic and handling activity to/in Malta to increase.

Operators are expecting to commit to significant investment projects in the coming months, which will include expansion of capacity in diverse segments, and the acquisition of additional aircraft. We are informed that operators' investment plans will trigger initiatives to increase personnel in the dispatch and aircraft management sector, in operational areas, in technical and support roles, and in administrative and finance functions, as a minimum.

Hiring requirements in the industry

Forthcoming demand for new employees

Another interesting perspective is that demand for labour is a derived demand since it depends on the demand for products and services. This demand for products and services is currently increasing based on population patterns.

On a related theme, an operator observed that the main growth factors underlying the growth in business aviation relate to the increase in the number of high-net-worth individuals taking up residence in Malta, as well as growth in the number of companies operating from Malta.

Operators believe that migration of labour into the aviation industry is restricted. It appears to be easier to migrate out of the industry into other sectors.

Since Malta has only one airport, access to Malta International Airport for business aviation traffic is essential, and specifically such access needs to be competitive at a standard and cost comparable to our main competitors such as Nice and Cyprus.

Hiring requirements in the industry

Forthcoming demand for new employees

In the Aircraft Management segment, one factor driving growth is perceived to be the efficiency of the Transport Malta Civil Aviation Directorate within the context of the overall world economic growth. Operators emphasised the importance of professionalism and adequate resourcing in the Civil Aviation Directorate.

In addition, operators emphasised that economic factors, such as salary levels and government policies, affect job potential either positively or negatively. Operators argued that government policies related to the setting of the minimum wage and of less or more restrictive migration policies, will have an important bearing on new employment growth.

Respondents to the survey questionnaire were asked to identify the number and profile of anticipated new employment opportunities. As anticipated, most respondents were unable to provide tangible numbers and role information, but the indications arising from the survey reveal an expectation that a number of new jobs are likely to be created in the second half of 2021 and a significant number of additional new jobs are forecast to be created during 2022. Other operators said that minimal support personnel will be added in this period.

Hiring requirements in the industry

Forthcoming demand for new employees

Interestingly, it appears that operators in niche segments, such as drone operations or training institutions, are also anticipating new recruitments in these timeframes.

There appears to be limited advance knowledge of the number, type, level and requirement for these forthcoming recruitments, which is understandable when considering the prevailing context of high uncertainty.

It is nevertheless evident that the industry is expecting a resurgence as the prevailing mobility restrictions are relaxed and is planning to invest and seek to attract additional talent to address anticipated opportunities.

As with other sectors of the economy, the aviation industry is facing a number of retirements in the coming years, given the age distribution of employees in the industry. With the prospect of looming retirements, the hiring requirement needs to cover both replacement and expansion needs.

Hiring requirements in the industry

Forthcoming demand for new employees

The increasing rate of retirements among key personnel in several components of the aviation industry has compounded the difficulty of attracting, hiring, training, and retaining a workforce with the required skills. Although providing opportunities for advancement, the retirements create a vacuum for filling vacancies as personnel are promoted or recruited.

Operators need to have a balance of new and experienced workers to maintain their workforce and be fully productive.

In our labour market, it is difficult to find workers with enough experience and the required skill set.

Knowledge transfer methods (training), both formal and informal, are required.

Hiring requirements in the industry

Forthcoming demand for new employees

Operators have noted that there is a big gender gap in the industry. This is both a problem and an opportunity as there may be a potential pool of candidates to be addressed if efforts are made to increase the share of women in aviation.

We have also received feedback that operators may be employing people resident outside Malta, especially in the case of aircrew working on flights outside Malta. This may result in relative understatement of the number of people employed by the aviation industry locally, and the prospects for new recruitment by Malta-based companies.

Hiring requirements in the industry

Diversity of skill requirements

Operators' feedback indicates that the aviation industry demands a very broad range of diverse skill sets, ranging from engineering, technical, managerial, professional, regulatory, craftsmanship, dispatch operations, charter experience, aircraft management skills, finance and office administration, hospitality, language and interaction skills, inter-cultural and soft skills.

Aviation is a regulated activity. Necessarily, emphasis is laid on safety and on regulatory compliance. Operators in both the public and the private sectors have emphasised the market need for persons qualified in safety management, safety and regulatory auditing, and regulatory compliance.

Academic attainment is an important consideration in requirements for qualified labour. Operators highlighted a perception that the market is unable to satisfy demand for graduate level personnel.

Hiring requirements in the industry

Diversity of skill requirements

Respondents emphasised that professional service providers are an important component of the industry - legal and advisory firms likewise experience challenges in recruitment which raises the cost of attracting talent, occasionally necessitating the recruitment of professionals outside Malta and the costs of relocation.

Employees need ambassadorial skills. Client relations and hospitality are very important skills in the industry, since clients expect to receive high levels of service comparable to what is offered in other parts of the world.

Operators emphasise the international nature of the market, highlighting the importance of language abilities and cultural knowledge.

Operators argue that business aviation is a very specialised niche in the industry so technical knowledge is key in various areas, not solely for pilots and engineers, but also in dispatch, operational control, ground operations, continued airworthiness and other segments.

Hiring requirements in the industry

Diversity of skill requirements

Operators indicated a broad range of skill set requirements within the same entity (technical skills for the more back-end functions and client relations and languages at the front end), as the company operates in a flat model whereby all levels tend to have some level of exposure to third parties (including clients, suppliers and partners - all of which may be coming from different countries). This tends to be typical of a large number of operators in this industry.

Hiring requirements in the industry

Training and upskilling

In the course of our fieldwork, operators have shared with us their thoughts about training needs and models that are relevant to the labour market in Malta.

Operators expressed their views that the industry is expecting the introduction of specific aviation-related modules in graduate courses.

At the same time, operators expressed reservations about MCAST, observing that the institution may be short on resources, and has been losing experienced instructors to industry.

A related point of contention was that it appears that the University does not reach out to the DCA or to the industry to research what is needed in the market. The industry itself does not appear to have reached out to University.

Other operators were substantively positive about their relationships with University and MCAST, commenting that level of communication with both educational institutions has improved over the past years.

Hiring requirements in the industry

Training and upskilling

One point made repeatedly in our fieldwork was that educational institutions are not responsive to the industry, and this is very difficult from the perspective of corporate planning and control.

Operators pointed out that the city of Leeds, for example, has a specific specialised college. the Craven College Aviation Academy - that is specifically focused upon aviation.

Operators argue that the industry can be looking at systems to address the challenges of a tight labour market. For example, the use of virtual reality enables training to be carried out in an environment that enables the delivery of advanced training in procedures.

Operators argued that they invest in diverse training programmes that keep personnel abreast of new technologies in the industry. By its nature, aviation business is international, so the use of internet-based technology was always part and parcel of day-to-day operations.

Hiring requirements in the industry

Training and upskilling

Operators emphasised the speed of change in technology and its impact on the business. It was claimed that technology related to the operation is evolving by the month and is driving a lot of developments both in the product/solutions offered plus also creating demand/opportunities from clients for solutions that can be enabled through these new technologies. This creates challenges in training potential recruits.

Operators emphasised the development and implementation of innovation and digitization for internal processes. One such recent example is the digitalisation of the operator's KPI measurement tool.

There is a strong feeling in support for the setting up of a dedicated specialised aviation institution, similar to other institutions in continental Europe and the UK. This should start as a small training institution, eventually developing into an Academy, and capitalising on existing skills, reputation, and assets in the local industry.

Hiring requirements in the industry

Training and upskilling

Operators argued that the major problem is that interest in the aviation sector is decreasing, and a national promotional campaign would be beneficial.

Operators laid emphasis on the importance of apprenticeship schemes. An apprenticeship is a system for training a new generation of practitioners of a trade or profession with on-the-job training and often some accompanying study (classroom work and reading). Apprenticeships can also enable practitioners to gain a license to practice in a regulated profession. Most of their training is done while working for an employer who helps the apprentices learn their trade or profession, in exchange for their continued labour for an agreed period after they have achieved measurable competencies.

Operators noted that the cost of apprenticeships is relatively small, while a sizeable investment is put into supervision during the period of the apprenticeship.

Hiring requirements in the industry

Training and upskilling

Apprenticeships can be divided into two main categories:

- Independent apprenticeships are those organized and managed by employers, without any involvement from educational institutions. They are not associated to any educational curricula, which means that, usually, the apprentices are not involved in any educational programme during this period but, even if they are, there is no relation between the undergoing studies and the apprenticeship itself.
- Cooperative apprenticeships are those organized and managed in cooperation between educational institutions and employers. They vary in terms of governance, some being more employer led and others more educational institution led, but they are always associated with a curriculum and are designed as a means for students to put theory in practice and master knowledge in a way that empowers them with professional autonomy.

An important consideration raised by operators in different segments of the industry relates to the mismatch of expectations. By way of example, it was mentioned that potential recruits may approach the industry with high expectations, leading to problematic expectations-management issues if a qualified employee is asked to start work at a relatively junior level.

Hiring requirements in the industry

Recruitment processes and issues

There appears to be a diversity of recruitment processes and approaches within the industry.

Operators in the industry have good relationships with MCAST and are active in the apprenticeship segment.

Operators carry out their recruiting process through a recruitment agent, where the cost for the recruitment process tends to be a fixed rate of 12% to 15% of the candidate's annual remuneration.

Other recruitment processes are carried out through job recruitment websites. Advertising job vacancies through such recruitment websites has a minimal cost of EUR150 per post.

Operators carry out their recruitment through a network of contacts, relying on direct approaches to source their manpower.

Hiring requirements in the industry

Recruitment processes and issues

An interesting reflection has been that apprenticeships have been relevant over time, and there exists a good level of satisfaction with the programme, however over the years, interest in this industry has waned somewhat.

Operators informed us of a particular difficulty faced by employers in carrying out their recruitment activities. It appears that aircrew (resident outside Malta) employed by Malta-registered AOCS may not be paying tax in Malta. This is potentially problematic for employers as they are unable to provide prospective employees with any certainty about their fiscal treatment because of this situation.

Conclusion – satisfying labour demand

Our fieldwork has indicated that in the short term, the industry demand for labour is going to increase. There are a number of contributory factors:

there are several new projects coming on stream in the coming months, which will recruit people as they launch new start-ups (expansion demand),

there is a substantial number of existing operators who are planning to increase their manpower in 2022 (expansion demand). We estimate this will be reflected in the creation of around 200 to 300 new employment opportunities in 2022,

there will inevitably be substantial movement of persons both into and out of the aviation industry (net new entrants),

there will be additional recruitment of persons to replace existing employees who reach retirement age in the second half of 2021 and in 2022 (replacement demand).

Conclusion

satisfying labour demand

In summary, the labour recruitment gap for the industry will be the net difference (if any) between:

the sum of expansion demand for new company start-ups and expansion projects and replacement demand, set off against

the number of net new entrants into the industry (assuming that this number is a positive value"),

The difference will indicate the recruitment gap, or more specifically, the number of employees that need to be attracted into the aviation industry to satisfy forecast demand.

*in the local labour market, people move across industries in reaction to multiple considerations. For example, at the start of the COVID-19 pandemic, employees moved out of the tourism industry, and to some extent the retail industry, into other sectors that retained a stronger level of recruitment activity. It is quite reasonable to assume that the aviation industry's demand for persons with language and hospitality skills may have attracted persons moving out of the tourism industry at the time. It is equally possible that the re-emergence of tourism operations in summer 2021 may trigger labour movements out of the aviation industry and into tourism, leisure, entertainment or retail industries. It may not be reasonable to assume that net new entrants into the aviation industry will necessarily be a positive value.

Conclusion

satisfying labour demand

Operators specifically emphasised that the industry needs to encourage more people to develop careers in aviation: "the expectation is that in a post- COVID recovery, there is going to be a shortage of people in the aviation labour market, and a consequent inflationary wage surge".

A second consideration relates to the mix of skill sets and related qualifications that are embedded into the forecast expansion demand.

Our fieldwork has indicated that the industry requires a supply of multi-skilled labour, often not easily available in the local labour market.

The industry appears to have reservations about the ability of the local educational and training institutions to meet local demand in the numbers and level of qualifications and knowledge required during times of growth.

Conclusion

satisfying labour demand

The industry appears to have developed techniques of internal training based on AI and internet-based training.

The industry appears to be generally hoping for further evolution and expansion of apprenticeship schemes, as a means of attracting and introducing younger employees and embarking them on skills development paths.

Operators broadened the scope of the discussion by mentioning a specific problem to secure visas for pilots in transit, when an MRO won a major contract from an African airline. It was suggested that a dedicated front office could be set up to facilitate such situations, hence supporting the growth of the industry and the creation of additional employment opportunities.

Operators suggested that additional investment in the aerodrome, and specifically in increased aircraft parking space and an engine run bay, would be an important stimulus to the industry.

Conclusion

satisfying labour demand

The formulation of an industry strategy will necessitate a labour market equilibrium.

Industry demand for labour needs to be met with a supply side plan that aims to attract labour to the industry and provides relevant training and skills development opportunities.

We recommend that this analysis of industry demand for labour should be balanced with a strategic plan to identify and address supply side issues.

Appendix: A preliminary proposal for a youth-recruitment assistance scheme

Wage Subsidies to encourage employers to hire post-secondary students - up to 200 students in the aviation industry over 4 years.

Focus on occupations in science, technology, engineering, mathematics and business

Employers offering quality "work-integrated learning" placements to post-secondary students will receive wage subsidies

Co-operative apprenticeships, internships, field placements

Employers will receive wage subsidies of up to 50% of the students' wages (up to a defined maximum per placement)

Or up to 70% (up to a defined maximum per placement) for first-year students and under-represented groups including women in STEM (science, technology, engineering, and mathematics), persons with disabilities and recent immigrants.

Appendix

A proposal for a youth recruitment assistance scheme

Industry said it needs a labour force which is more multidisciplinary - competent in more than one trade

Development of a new curriculum which alternates school and working periods

To include Aircraft Maintenance Technician, Avionics and Interiors

Students will have more hands-on experience, so they are productive in the workforce sooner

Students will receive practical work experience on real world equipment, incorporating the latest technology and Original Equipment Manufacturer (OEM) technical platforms.

Appendix

A proposal for a youth recruitment assistance scheme

Industry operator stakeholders to be involved in the design of the program.

Work terms include structured on-the-job training, job shadowing, a mentoring program, online training as well as technical, business, leadership and entrepreneurial skills training.

Separately make funding available to aviation students wishing to complete an instructor or float rating.