



ENTE NAZIONALE PER L'AVIAZIONE CIVILE  
ITALIAN CIVIL AVIATION AUTHORITY



# Annual Report and Social Balance 2019

**ENAC**  
Italian Civil Aviation Authority



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# CONTRIBUTIONS



**Salvatore Sciacchitano**

PRESIDENT  
INTERNATIONAL CIVIL AVIATION ORGANIZATION

**Nicola Zaccheo**

PRESIDENT  
ITALIAN CIVIL AVIATION AUTHORITY

**Alessio Quaranta**

DIRECTOR GENERAL  
ITALIAN CIVIL AVIATION AUTHORITY

**Alessandro Cardì**

DEPUTY DIRECTOR GENERAL  
ITALIAN CIVIL AVIATION AUTHORITY



## Salvatore Sciacchitano

PRESIDENT

INTERNATIONAL CIVIL AVIATION ORGANIZATION

It is rather difficult to express a message for the 2019 Report and Social Balance of the ENAC without mentioning the time in which this text is written, that is during the Covid-19 Pandemic, which has caused effects on the air transport that were unimaginable a few months ago. These effects were so disastrous that have led several air companies, also of a great international importance, on the threshold of bankruptcy with a global loss in 2020 of 45% on offered places and approximately \$400 billion of revenue, according to the estimation made by ICAO.

On the contrary, 2019 was concluded with excellent results for the international air transport industry with 4.6 billion passengers carried - corresponding to a 5.5% more compared to 2018 - and the growth perspective at that time was essentially forecasting the same rate.

The year 2019 was concluded with excellent international results by ENAC. Excellent results not only for the successful campaign supporting my candidacy for the Council Presidency of the ICAO, during which the President Nicola Zaccheo and the Director General Alessio Quaranta did not spare any missions and bilateral and multilateral meetings.

But significant results also for the strengthening of the ENAC at international level in terms of role and leadership. These roles have been achieved thanks to a broad and modern vision which is characterizing the leadership of ENAC, which sees the international function as priority and it is finalized to the support of a modern and efficient framework of the Italian civil aviation.

The disastrous effects of Covid-19 will only enhance even more the role of ENAC for a recovery and for a resilience of the Italian air transport system. This is the new priority that certainly ENAC will be able to successfully face thanks to the competencies and to the strategy and professionalism of its top managers.



## Nicola Zaccheo

PRESIDENT

ITALIAN CIVIL AVIATION AUTHORITY

It is hard to present the 2019 Annual Report and Social Balance of ENAC without taking into consideration the horrible tragedy caused by the Covid-19 pandemic. It has been hitting the whole planet over the recent months, with a dramatic number of victims and people infected, severely affecting our economies and causing an unprecedented crisis in the Transport industry, with the air transport certainly being among of the hardest hit domains.

I would rather start my speech from the 2019 important results and numbers, so that they bode well for a quick restart of our sector, wishing that the collaboration with all the players and stakeholders will be strengthened, not only in activities of support but, above all, in activities of relaunch. In this way "Restart" would be synonym of "Rebirth", in such a strategic area for Italy.

2019 has been an extraordinary year for the air transport, especially in Italy. As shown in more detail in the following pages, the overall national and international commercial traffic consisted of more than 192 million passengers who transited in Italy, with a 4% increase compared with the 2018 data. It confirmed the significant upward trend that, in the last five years, has resulted in an increase of almost 22% of the total number of passengers. The volumes growth affected in the first place the airports of Rome and Milan, but also those of Bergamo, Venice, Naples, Catania, Bologna, Palermo. The Italian airport networks have worked very well: the network of Rome made up of the Ciampino and Fiumicino airports, with approximately 49 million passengers, the Milan Malpensa – Linate network (the latter has been shut down for three months to carry out the runway upgrade work) with 35.2 million passengers, the north-east network (Venice, Treviso, Verona and Brescia) with 18.3 million passengers, the network of Naples and Salerno with 10.9 million passengers, the network of Eastern Sicily (Catania and Comiso) with 10.5 million passengers, the network of Tuscany (Pisa and Florence) with 8.2 million passengers, the network of the Apulia Region (Bari, Brindisi, Foggia and Taranto) with 8.1 million passengers and the Calabria network (Lamezia Terme, Reggio Calabria and Crotona) with 3.7 million passengers. With regard to the economic returns, in 2019 the sector produced 3.6% of the GDP (Gross Domestic Product), which means an overall impact on the Italian economy of approximately EUR 71 billion, of which respectively EUR 18 billion and EUR 53 billion in direct and indirect economic impact.

2019 was also the year ENAC strengthened its international positioning, confirming the leadership in strategic and innovative areas such as the airport safety (in September ENAC donated to ICAO

the proprietary software SDAC - Spatial Distribution of Aircraft Crashes, an enormous database to analyse and assess the accidents/incidents recorded in the vicinity of the airports worldwide), the regulation and certification related to the new civil aviation frontiers (drones, suborbital flights, access to Space), the environmental sustainability (important projects to achieve a civil aviation that becomes more and more green).

We obtained important international results, through the invaluable support of the Ministry of Infrastructure and Transport and the Ministry of Foreign Affairs, the most prestigious of which, let me say, achieved for sure within ICAO - International Civil Aviation Organization, the UN Agency that gathers the civil aviation authorities of 193 Countries. In fact, during the 40<sup>th</sup> session of the ICAO General Assembly, Italy has been the most voted Country, on par with China, receiving 160 votes on 168 voters in the election of the Council, the ICAO executive body made up of 36 members. On completion of the extraordinary esteem in which Italy and ENAC are held in the international civil aviation scenario, the ICAO Council, during its first meeting, elected the Italian Mr. Salvatore Sciacchitano as President for the three-year period 2020-2022, former Vice Director General of ENAC and first European with the role of president since ICAO foundation in 1944. This result displays the appreciation of the world to the Italian aviation Authority and the outcomes of its work, constantly and scrupulously performed over the years by the ENAC staff on international negotiating tables.

Going back to the dramatic recent events, this terrible pandemic, as I was saying, completely nullified the air traffic in a few days. In the most tragic moment, we registered a decrease of over 98% of flights. As mainly basic necessities, the only operated flights were the cargo, not only ensuring the fundamental transport of goods, but also being involved in several humanitarian operations and in the transport of medical supplies. Exactly in these circumstances it became clear how strategically important the air transport is and, let me say, how important it is to have national air carriers ready to provide the community with a fundamental logistic support in case of emergency.

The work carried out by every ENAC structure in the last months has been exceptional. We faced truly critical situations with big professionalism, sense of duty and alertness, without backing down when called to face with difficult choices. We provided all the involved Institutions, Ministry of Infrastructure and Transport in the first place, with the maximum support in the management of emergency activities, such as Italian nationals returning from abroad, operations of transport of sick people, definition of guidelines and health security procedures to be implemented at airport and on-board the aircraft. We have coordinated the working tables with all the players in the sector to agree on economic and regulatory measures to support the operators and the modalities for a safe restart of the air transport.

In the knowledge that this tragedy will have to become a real and concrete opportunity for rebirth, we are already working, based on the instructions from the Minister Paola De Micheli, to revise the Airports National Plan, with ambitious targets of being ready to manage the pre-Covid volumes growth in the short possible time. The guidelines aimed at reformulating the plan have already been submitted to the Minister to be assessed. As an anticipation, we are proposing, with a conservative approach, a traffic growth forecast timeframe shifted by 5 years compared to the estimates of the end of 2019.

Therefore, we are assuming a volume of 300 million passengers by 2035 in the analysis aimed at adapting the airport infrastructures. In line with what has already been affirmed on several occasions,

in the new Airports National Plan, ENAC will propose to increase the investments in the fields of intermodality, digitalisation and environmental sustainability. As a lesson learnt from the Covid-19 pandemic, investments will also be needed in new infrastructures and equipment in order to ensure a new concept of airport security: the health security. Lastly, we will propose to give the adequate emphasis to the Cargo sector, promoting the investments that allow an adequate development and to seize the important opportunities offered by the market.

At this point I would like to make a reflection about the future of ENAC. Over the last months I have analysed in detail the priorities needed by ENAC to operate at its best and to optimally carry out its institutional tasks. Unfortunately, as well known, the Authority pours for a long time in a situation of most serious difficulty. Over the years, due to the economic situation that has worsened the public balances, a contraction of the conferred independence has been registered together with the unavoidable equation of ENAC with other public bodies, resulting in a hiring freeze of all the specialists that are essential to ensure the operativity high levels required per definition by the air transport safety and security. All this caused a stagnation of the current situation, which most concrete consequence has been the blocking of the first steps of the air transport sector reform, creating a bureaucratic and administrative model that is not able to meet the needs of the sector and is risking not to adequately protect the public interest and the flight safety and security. I firmly believe that, as first step, ENAC needs the transformation in "Ente Pubblico Economico" as, however, already established by the related institutive law. The new legal form would allow ENAC to better fulfil the public purposes also through the economic resources coming from the different activities that it has not been possible to develop them yet. In particular, specific strategic sectors would benefit from it, such as the one related to passenger's rights, through a more accurate action on the airport managing bodies behaviour and on the compliance with the provisions included in the related Planning Agreements, and the ones regarding safety/security through a reinforcement of the structures located on the Italian territory. On top of that, the hiring of high specialised and qualified staff would allow a closer control and stimulation on both the ongoing and the future investments that will assist the recovery of the air transport sector, through the Government work. Among the different activities that the Authority could better carry out due to the greater autonomy deriving from the new legal form, an important aspect is represented by the so-called minor airports and the general aviation airports. Already in its constitution phase, ENAC directly managed some airports that nowadays are general aviation airports, except for the one of Pantelleria. These airports have a significant role within the respective local communities, an important social value since they carry out civil service activities and, in some cases, they represent an interesting economic element for the territory and a disseminating means for the aeronautic culture as well as the recreational and sports activities connected to the general aviation world. All the attempts implemented in order to identify private or, in alternative, public subjects able to manage the different local realities have not been successful due to the difficulties of managing these realities following a merely profit-oriented approach. The development and the valorisation of these airports have been affected in the last years by the lack of human resources within ENAC and the impossibility of using the financial resources. The transformation in "Ente Pubblico Economico" would allow a better valorisation of the public asset represented by the mentioned airports and also increase the number of airports under direct management. Taking into consideration the current situation, I am convinced that, just by

reason of the ongoing emergency situation, it is even more necessary that the adequate resources will be at the disposal of ENAC in order to ensure the supervision on a correct and efficient traffic recovery and airport operativity as well as on re-launching activities involving the entire sector. Now more than ever, in my opinion, this transformation of the Authority is absolutely necessary.

In conclusion, during these first 18 months of Presidency, I had the opportunity to deepen the knowledge of ENAC, appreciating even more its professionalism and the competences. However only in the first months of 2020, managing the countless critical situations related to the Covid-19 emergency we have been required to face, I had the possibility to fully appreciate the skills of the personnel that work daily with a strong sense of duty, sense of belonging and resilience, making me feel honoured to chair this Authority.

I am absolutely certain that in the upcoming months we will be even more motivated and ready to face the demanding challenges ahead, connected to the restart but, I would emphasise, above all to the relaunch of the air transport sector and the entire Civil Aviation.





## Alessio Quaranta

DIRECTOR GENERAL  
ITALIAN CIVIL AVIATION AUTHORITY

The extraordinariness of the situation that has been arisen as a consequence of the Covid-19 Pandemic has demonstrated the vulnerability of the air transport sector that, although in recent years had already gotten to experience crisis tied to terroristic attacks and other pandemics, has always given proof of an incredible resilience. Yet, to the present day, nothing had brought to airports closure and to the block of the air traffic as witnessed over recent months – a circumstance that has left a deep scar in all the operators in the sector.

Now, after the first signs of recovery, it appears extremely appropriate to think of the future scenario and which could be the guidelines to be followed, with a more mature vision – being aware of the possible development of the sector in a perspective of sustainable growth.

If on the one hand adequate special measures must be devised to ensure the revitalisation of the entire air transport sector – which has strongly been affected in all the links of its supply chain - on the other hand it cannot be denied that it is essential to identify an organised set of actions that allow the sector to strengthen and to achieve an adequate level of resilience to the external shocks. Today we find ourselves in a new historical phase, in which the two lines of intervention must be implemented at the same time, albeit with a different time frame. The first ones must be immediate and necessarily transitional, the second ones represent instead a new point of arrival, yet to be built in the medium-long term.

The deflagrating impact of the Pandemic has affected the entire sector throughout a domino effect. According to a principle of good sense and proportion, it is therefore necessary to identify the essential measures to restart the system. It is clear, that as they are part of one only mechanism, no operator of the supply chain has to be abandoned. However, if the priorities of intervention are correctly identified in the belief that there is a "multiplicative" effect of each supporting measure, the close interdependence of the various operators within the supply chain does not represent a weak point – thereby generating positive cascading effects on the other operators that do not directly benefit from the above mentioned measures.

Therefore, it is necessary to ask ourselves how to streamline the available resources to the scope of optimising the result.

It is quite evident, that the extraordinary situation which has arisen and the urgency of restarting the system makes it necessary to adopt special and flexible tools, that to date have not even been hypothesized. In this perspective every Country should be able to work with more flexibility, with

regard to concession and provision of incentives and government grants, in the identification of the measures of the amount of the contribution to be paid to companies of the sector according to their needs, within their own territory, this also for "exemption" to the current legislation (national, communal and supranational rank) while protecting the principles of transparency, rationality and non-discrimination.

With regard to the world of air companies heavily hit by the Pandemic, it has to prevail the belief that the air carriers are the absolute "strategic assets" and not only for the home State; for this purpose it would be appropriate to temporarily restrict any form of connections restriction, as well as the limits imposed by the bilateral agreements, in order to ease the air traffic (including an exemption on the O&C provision).

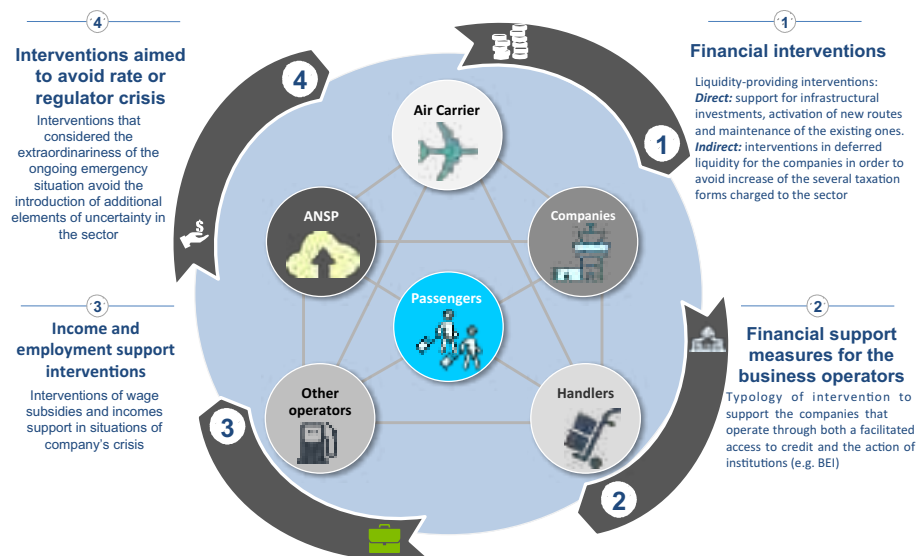
Always talking about air carriers, it is expected a reflection aimed to the extensive application of the OSP legislation, enabling the State to deliver an economic compensation, exceeding the restrictions planned in the current legislation, also with the aim of rapidly restoring not only the National but also the International connections – encouraging the recovery of the flight activity that will necessarily happen with a lack of profitability.

In the short term the above-mentioned actions, have the advantage of having a positive impact on the key element of the supply chain, that is the passenger, whose propensity to travel is directly linked to the following factors:

- best infrastructural and technical equipment of airports. The costs of which, partially financed by public resources, do not weigh heavily on the passenger;
  - increase of the offer;
  - containment of rate increase, with possible deletion of a further taxation charged to the passenger.
- These factors are influenced by the actions mentioned above.

## Type of interventions

### Involved subjects and proposed typologies of intervention



ENAC has already expressed the need of defining guidelines that will be implemented in an organic and complementary way (see graph), without losing sight of Community guidelines in the matter and of the need of coordination with the undertaken actions – also at supranational level from other States.

### Direct & non-direct financial interventions

The flexible use of the State aid rules, the new aid regimes (e.g. approval of the EC for the State aid) and other forms of grants and/or incentives represent the new frontier to be experienced - always in the respect of the principles of equity and transparency. In this context we can also find the "aids" aimed to support airports in the reopening phase or to support them relieve the costs incurred and not incurred yet to fulfil all the required measures to ensure public health.

Particular attention should be ensured to the airports that, also before Covid-19, were operating below the threshold of sustainability, for which specific measures can be implemented. For this kind of airports, an in-depth reflection needs to be made in order to correctly evaluate the general public interest in maintaining them, also in terms of a positive relapse within the sector.

In fact, it cannot be excluded that the mitigation of the aforementioned interventions should/must take place through public resources intended for financing infrastructure adjustments, at zero costs for the users. A positive relapse should not only be considered with reference to the airport users but also to the entirety of the satellite activities.

In parallel, in compliance with the principles of equity and transparency, the opportunity to allocate the regional or local public resources to the airports in order to maintain existing routes and open new ones, has got to be considered (once identified the traffic thresholds to promote and the maximum payable incentives).

With reference to the interventions in deferred liquidity, the Institution actively encouraged the involved parties to extend time limits and postpone, where possible, the payment terms of the invoices (e.g.: airport charges, air navigation services fees, costs for the use of airports goods and services used by sub-dealers, caterers and fuel suppliers).

### Income and employment support interventions

Wage subsidies and incomes support appear among the main options promoted under the measures of the European Commission, where the States can apply in order to deal with the major crisis affecting both, companies and employees. These measures can be introduced independently without activating any procedure, within the meaning of the State-aid legislation.

The measures that can be activated should be appropriate and should facilitate the use from the companies in the sector to the social safety nets, as well as to accelerate and simplify the delivery of the performance in favour of those entitled thereto.

### Financial support measures for the business operators

In order to support the economics during the Covid-19 Pandemic, the European Commission has adopted a temporary framework of measures to allow Member States to make use of the flexibility defined by State-aid legislations.

Along with several other support measures that can be used to the senses of the current State-aid legislations<sup>1</sup>, the temporary framework allows Member States to ensure that the companies are given enough cash and that business continuity can be maintained during and after the Covid-19 Pandemic.

In particular the Commission, after the Communication of the 13<sup>th</sup> March 2020 on a new economical

<sup>1</sup> TFUE, art. 107, par. 2 Let.B) and par.3 Let. C). Compatible: aids dedicated to overcome damages caused by natural disasters or from other exceptional events / Can be considered compatible: aids dedicated to facilitate the development of certain activities or certain economical regions, unless they alter the conditions of the exchanges to an extent contrary to the common interest.

response due to the Covid-19 Pandemic, has exposed several options at the disposal of the Member States for granting measures not covered by the control of the State-aids and that may be implemented without the involvement of European institutions.

This provision concerns: i) suspension of the payment of the corporate tax, of the VAT or of the social security contributions, ii) financial support directed at the consumers, against cancelled services or non-refunded tickets and iii) support measures that comply with the general Regulation on block exemptions (Reg. 165/2014).

According to the further Communication of the 19<sup>th</sup> March 2020: "Temporary Framework for the State-aid measures supporting the economics in the current Covid-19 Emergency", the Commission has exposed other temporary measures pursuant to art.107, par.3 letter b) of the TFUE<sup>2</sup> and that could be quickly approved from the same Commission, upon notification to the State.

In that event, the States will have to demonstrate that the aid-measures are necessary, adequate and proportioned to remedy a serious disturbance of the economics of the State and that all the conditions provided for Community Regulations are respected.

The temporary framework provides, in fact, five types of aid:

- 1) Direct grants, selective tax benefits and payments on account: Member States will be able to create regimes to grant up to € 800,000 to a company that has to face urgent needs with regard to current assets;
- 2) State guarantees on bank loans incurred by businesses: Member States will be able to provide State guarantee for the Banks to continue supplying loans to the clients in need;
- 3) Subsidised public loans to businesses: Member States will be able to grant loans with favorable tax rates for the companies/businesses, to help them to cover the immediate working capital demand and for the investments;
- 4) Guarantees for Banks that convey the State aids to the real economic: some Member States foresee to use the existing bank lending capacity and to use them as a support channel for the businesses, in particular for small and medium enterprises. The framework clarifies that these aids are considered aids directed in support of the clients of the banks and not of the banks themselves and it provides directions to reduce the distortion of the competition among banks to the minimum;
- 5) Ensure credit to the short-term export: the framework introduces an additional flexibility, permitting the States to offer, where necessary, an insurance coverage for short-term export credits.

The above-mentioned framework is temporary and it will run until the end of December 2020, unless extended.

### **Interventions aimed to avoid rate or regulatory crisis**

Given the extraordinariness of the current emergency, it is a matter of priority not to introduce additional elements of uncertainty and instability in the industry, also with reference to the current regulations, by postponing, where possible, to a following phase the implementation of regulatory measures aimed at introducing new or diverse rules that impact the tariff regulations of the air business sector, because in a situation of profound uncertainty as the current one, the introduction of new rules could make the system collapse.

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<sup>2</sup> May be considered compatible with the internal market the aids designed to promote the realization of a project of communal interest or to remedy a serious disturbance of the economics of one of the Member States.

## Conclusion

The lesson learnt with Covid-19 must make us reflect which could be a sustainable development, compatible with a new growth scenario that has been highlighted.

It is obvious how the existing scenario has deeply changed, and the traffic forecasts behind the already approved infrastructural planning deserve a careful reconsideration. The programming of the new works, contained in the Plans of intervention should be analyzed again, with the aim to identify which ones are the most urgent ones (investment on safety, security, extraordinary maintenance) and which ones can wait for the traffic to be restored.

In any case this occasion should be taken to reflect and reconsider a sustainable growth for the airport Planning.

The congestion problem of the principal European airports has been under the radar of the stakeholders for some time. The forecasts produced by the principal international providers, in a pre-Covid19 scenario, assumed levels of delays in the principal European Hubs - levels that would not have allowed to meet the demand of transport with a clear relapse on the entire continental network. This scenario is made even worse by the challenges to build, in the short term, new infrastructures to enhance the capacity available today (e.g.: construction of new runways).

The effort that we are being asked today, is to assume a growth in the capacity, driven not only by building new infrastructures but also by a better use of the existing ones.

The solution should be found in the technological innovation that, under the same infrastructural equipment, allows effective use with benefit in terms of environmental sustainability and of social acceptance - especially from new generations, that are more sensitive about the topic of the impact that airport activities has on the environment.

Technological innovation represents therefore an important driver of growth. It is possible to promote investments in technology with the aim to make the airport growth sustainable, while best encouraging air carriers that use less-polluting aircraft.

In this perspective, with the objective to rationalize the existing capacity, it is possible to evaluate the use of the available capacity on minor airports that can be used as reserve of capacity for bigger ones. On the overall level an "operating synergy" is needed to rationalize the offer, and on the other to accommodate the demand, also on minor airports - that otherwise risk not to reach the break-even point.

Therefore, the challenge for the upcoming years is focused on the development of airports optimizing the technical innovations (with a "green" view) and reducing charges to the users. This will allow a more efficient use of airports and it will positively impact the willingness to travel.

Moreover, talking about infrastructures, it entails planning by juggling between the needs of airport capacity expansion with the needs of the territory, being aware that an airport infrastructure has - and has to necessarily have - a long-term useful life, representing a strategic asset for the present and future generations.



## Alessandro Cardi

DEPUTY DIRECTOR GENERAL  
ITALIAN CIVIL AVIATION AUTHORITY

### Innovations and future challenges

The 40<sup>th</sup> ICAO Assembly of 2019 marked the urgent need to face and guide innovation in the civil aviation sector (Ref. 40<sup>th</sup> ICAO Assembly, Item 26 Other high-level policy issues - Executive Committee Innovation in Aviation), on a global, regional and national level, adopting timely measures to monitor and evaluate the development of emerging technologies, in a manner that their beneficial potentials can be achieved without leaving anyone of the Contracting State behind. In this context, the Civil Aviation Authorities are called, in cooperation with the involved stakeholders, to develop and adopt policies that will facilitate the technological development - ensuring adequate levels of safety requested by the sector.

The matter brought to the attention of the national governments during the last General Assembly, provides a wide range of considerations: from the technological evolution of the current fleets, to the new operational scenarios enriching the civil aviation; there are measures to be developed, I think, to make future air operations environmentally friendly.

During the last years new technologies and new operational concepts have been rapidly increasing in the aeronautic industry, in particular: digitalization, robotics, artificial intelligence (AI) and the use of remotely piloted aircraft for the most different purposes. These innovations offer a significant potential for the global improvement of the sector (in terms of safety, security, sustainability, accessibility and economic growth) and need to be tackled with holistic vision, operation-centric, performance-based and risk-based approaches in order to recreate more efficient regulatory models.

The advent of drones and, more in general, the topic of new forms of urban mobility, the Urban Air Mobility (UAM) and the formulations of the airspace use in high altitudes for stratospheric, suborbital operations, including the theme related to the access to space for orbital operations, constitute the biggest challenges for the future. The actors of these new market segments are often identified as new entrants in the airspace and they have to be integrated or at least they have to be compatible with the air transport without compromising its development.

In adherence with the indications within the ICAO, in the course of 2019, the ENAC has dedicated particular attention to these two sectors in the firm belief that they could give a significant contribution to the development of the Country.

In fact, there is a common belief that the dissemination of digital technologies and the technological

innovation will radically change the urban mobility sector of goods and people and its satellite activities through the introduction of new concepts and new models of intelligent and sustainable urban mobility, based on autonomous flight and on the concept of integration of diverse users of the air space through the U-Space services.

With regards to the UAM, on December 16, 2019, together with the Ministry for the Technological Innovation and Digitalization, ENAC subscribed a Protocol of Understanding for the launch of the national project of Urban Air Mobility (UAM) called "E-Mobility Innovation" in response to the strategy of the European Union sanctioned by the 2018 "Declaration of Amsterdam", and which is connected on a national level to the strategic address lines of the Government - through technological, digital and sustainable development of the Country.

The main objective is to establish the regulatory and technological prerequisites, involving public and private bodies, to define a national ecosystem for the development of products and services aimed to the territory - framed in a new model of urban mobility that will always contribute to simplify and improve the quality of life of the citizens.

In this context, the chance of implementing an efficient model of Urban Aerial Mobility on the national territory, and more in general to play an active role in the sphere of innovations that affects the wider sphere of the Smart City and the new generation multi-domain integrated transport (air, naval and land transport) constitutes a wider opportunity for the Country, also taking into consideration the skills that Italy has demonstrated to own for a long time.

Projects in the subject of innovation and mobility contribute to the politics of governments aimed to strengthen the dynamism and the territorial competitiveness. The goal is to promote the rise of ecosystems that will enable a sustainable economic growth and the improvement of the life conditions of people, by leveraging new technologies on the base of the strength-points of the territorial bodies and of the capability of their populations.

Italy is taking action to build on its territory a new ecosystem based on concepts and models of urban mobility - that are sustainable, shared, based on the capabilities of autonomous flight and on the concept of air space integration, able to reduce the dependency from the use of the conventional means and infrastructures.

The objective is to define and implement a national strategy, involving public and private bodies to develop products and services for a new mobility model that shall contribute to simplify and improve the quality of life of citizens through an ecosystem able to integrate technological, social and industrial themes which belong to the Urban Air Mobility (UAM).

The challenge that awaits us, involves more and more resources and technical expertise so that favorable conditions can be met to experiment and promote new forms of intelligent mobility and sustainable economic growth.

It will be possible to say we made it only if, in the foreseeable future, we could realize the conditions to safely operate integrated and multimodal services for daily trips like Air-Taxi, drone services for the delivery of medical samples, medical supplies for hospitals and emergency centers, urban delivery services in a new urban and interurban logistics.

Similarly, the segment relating to the operations at high-altitude, until the wider theme of access to the space, sets significant challenges to the Country and to the ability to build a sustainable ecosystem under the legal, industrial and economical profile, expects the great potential comprising national excellences.

Italy, in the same way as other economically developed countries, has added the Space economy among the objectives of national economic policy in virtue of strong growth expectations of the

sector and of the repercussions estimated for the whole national economic. The access to the space and the further space politics represents a fundamental asset of the system based on articulated institutional competencies and on a modern governance system.

A significant role within the Space economy is carried from the commercial suborbital transport which, by leveraging the emergent technologies, could satisfy also further goals, like the research and the microgravity testing, the training of aircrews and astronauts and, possibly, to put satellites in orbit.

By decree of the Ministry of Infrastructures and Transport, it has been identified that ENAC is the technical Regulatory Authority for the aircraft, the infrastructures and the air space, and as executive performer over an implementation project, including the creation of a new regulatory framework and over a tracking and surveillance capacity, aimed at supporting the development of commercial suborbital operations.

In accordance to the mandate received, a regulation for the building and the operation of the spaceports has been elaborated - its public consultation stage ended in June 2020 - and the work for activity for the development of the regulation is in progress. This will allow the accomplishment of the commercial suborbital operations. The same pattern will be used for the operations over the stratospheric platforms and the other operations that may affect the high altitudes until the edge of the atmosphere.

In this challenge, ENAC is not alone, as it can count on a vast support from the principal institutional and industrial stakeholders, but the effort required is remarkable, also considering the corresponding commitment of the EU for the development of operational concepts and of the regulatory framework of the HAO (Higher Airspace Operations) – intended as those operations taking place in the highest levels of the airspace, above FL 600/660 and until 100 Km of altitude.

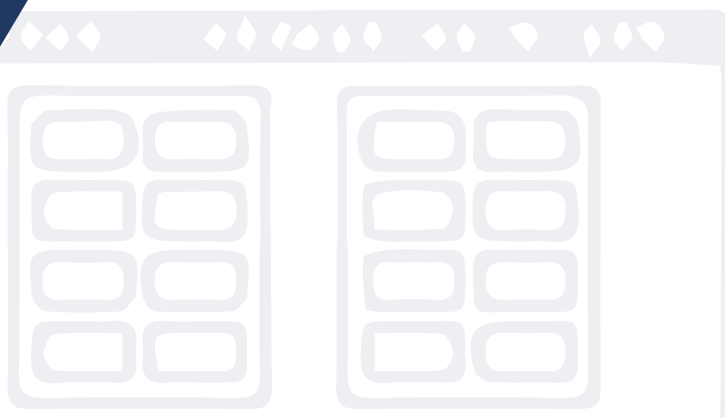
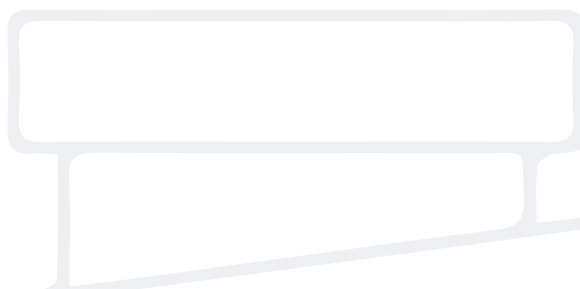
The HAO include not only the operations that take place completely in the aforementioned airspace band, but also those ones that only plan its crossing with the scope of placing spatial objects in the orbit (in the so called "Outer Space"), and also with the aim to re-enter these orbits (orbital operations excluded).

Also, in this case the challenge could be considered as won if an ecosystem is managed to be built which, following the safety regulations to be granted in the framework, uses all the available resources of the Country and which will be sustainable and fully integrated in the civil aviation activities.

It is on the basis of the premises and of the first positive results that I consider these challenges that we will face as sustainable, in the hope that our system will be able, in the upcoming years, to fulfil these objectives made possible by the technology evolution – in the advantage of the national and international communities.



# ITALIAN AIR TRANSPORT IN 2019



## Overall domestic and international commercial traffic of 2019 Scheduled and non-scheduled flights (arrival + departures)

AIRPORT	Movements		Passengers*		Transits		Cargo T	
	Number	Δ% 2019-18	Number	Δ% 2019-18	Number	Δ% 2019-18	Tons	Δ% 2019-18
1 ALBENGA	0	0.0%	0	0.0%	0	0.0%	0	0.0%
2 ALGHERO	9,997	-1.3%	1,385,647	2.3%	4,345	-55.6%	2.9	66.9%
3 ANCONA	5,817	6.8%	483,892	8.2%	3,947	392.8%	6,929.8	4.7%
4 AOSTA	0	0.0%	0	0.0%	0	0.0%	0	0.0%
5 BARI	38,029	4.2%	5,363,791	7.0%	14,008	17.6%	2,220.1	25.9%
6 BERGAMO	91,364	3.7%	13,792,266	7.5%	6,917	127.6%	118,947.2	-4.2%
7 BOLOGNA	72,883	7.9%	9,462,808	11.5%	11,676	15.6%	38,050.1	-6.1%
8 BOLZANO	25	-87.5%	765	-90.3%	0	0.0%	0	0.0%
9 BRESCIA	3,702	23.9%	9,601	180.6%	770	100.0%	13,323.7	29.2%
10 BRINDISI	18,131	8.2%	2,700,639	9.3%	3,958	-15.8%	10	-76.7%
11 CAGLIARI	34,424	9.7%	4,760,858	9.3%	4,501	-54.7%	4,256.7	18.7%
12 CATANIA	72,141	1.0%	10,155,077	3.5%	17,771	-28.1%	5,779.6	-9.6%
13 COMISO	2,323	-18.6%	352,379	-16.8%	2,397	208.5%	0	0.0%
14 CROTONE	1,064	85.4%	171,996	105.3%	0	0.0%	0	0.0%
15 CUNEO	624	-28.4%	89,787	-16.4%	0	-100.0%	0	0.0%
16 FIRENZE	29,141	5.6%	2,854,215	5.5%	59	0.0%	55.1	-14.3%
17 FOGGIA	0	-100.0%	0	0.0%	0	0.0%	0	-100.0%
18 FORLÌ	0	0.0%	0	0.0%	0	0.0%	0	0.0%
19 GENOVA	14,962	1.0%	1,533,363	5.8%	3,249	195.1%	149.7	2.4%
20 GROSSETO	6	-95.8%	247	-96.8%	0	0.0%	0	0.0%
21 LAMEZIA TERME	21,469	12.4%	3,117,830	13.5%	6,33	-28.9%	44.3	-95.6%
22 LAMPEDUSA	4,156	1.2%	274,031	2.2%	0	-100.0%	15.3	4.4%
23 MARINA DI CAMPO	119	67.6%	1,869	160.3%	0	0.0%	0	0.0%
24 MILANO LINATE **	69,585	-26.0%	6,536,914	-28.8%	2,199	73.4%	7,584.9	-39.7%
25 MILANO MALPENSA	222,661	17.2%	28,705,638	16.9%	118,619	-23.2%	558,440.7	-2.5%
26 NAPOLI	77,806	7.3%	10,796,590	9.0%	15,742	-12.7%	9,951.8	1.3%
27 OLBIA	22,303	-3.1%	2,934,290	-1.2%	1,971	-59.2%	93.2	-38.8%
28 PALERMO	51,219	5.3%	7,027,567	6.5%	14,642	-28.5%	1,165.2	211.9%
29 PANTELLERIA	3,685	3.8%	165,118	9.2%	0	0.0%	24.4	-10.2%
30 PARMA	531	-6.8%	71,674	-4.8%	0	-100.0%	0	0.0%
31 PERUGIA	1,512	4.4%	218,172	-0.8%	0	0.0%	0	0.0%
32 PESCARA	5,010	0.1%	696,327	5.9%	702	127.9%	1.2	-94.5%
33 PISA	37,611	-2.3%	5,346,624	-1.9%	5,707	42.5%	12,357.4	10.6%
34 REGGIO CALABRIA	3,397	-3.1%	367,348	2.9%	0	0.0%	38.8	14.9%
35 RIMINI	2,608	28.3%	394,583	29.7%	1,07	168.8%	4.4	-87.0%
36 ROMA CIAMPINO	34,992	-0.1%	5,851,821	0.7%	0	0.0%	18,413.5	0.9%
37 ROMA FIUMICINO	306,408	0.5%	43,354,887	1.1%	125,515	33.2%	194,473.5	-5.5%
38 SALERNO	4	0.0%	4	-97.2%	0	0.0%	0	0.0%
39 TARANTO	256	1.6%	603	939.7%	0	0.0%	8,695.8	27.2%
40 TORINO	32,337	-15.0%	3,695,172	-9.3%	9,351	104.8%	155.1	-62.3%
41 TRAPANI	4,421	-10.3%	407,230	-13.4%	3,592	-58.4%	12.1	-32.2%
42 TREVISO	19,020	-2.7%	3,233,483	-1.2%	1,359	619.0%	0	0.0%
43 TRIESTE	8,477	2.8%	779,802	1.3%	987	153.7%	68.1	-41.5%
44 VENEZIA	89,173	-0.6%	11,507,301	3.7%	8,354	6.1%	58,927.3	4.2%
45 VERONA	28,691	-2.3%	3,597,869	5.6%	14,38	18.7%	610.0	-42.0%
<b>TOTAL</b>	<b>1,442,084</b>	<b>2.0%</b>	<b>192,200,078</b>	<b>4.0%</b>	<b>404,118</b>	<b>-4.3%</b>	<b>1,060,802.1</b>	<b>-2.7%</b>

\* The 2019 passengers data includes infant passengers.

\*\* The Milan Linate Airport was shut down between the July 27<sup>th</sup> and the October 25<sup>th</sup> 2019, with the resulting transfer of the operational activities to the Milan Malpensa Airport.

## Overall domestic commercial traffic of 2019

### Scheduled and non-scheduled flights (arrival + departures)

AIRPORT	Movements		Passengers*		Cargo T	
	Number	Δ% 2019-18	Number	Δ% 2019-18	Tonn.	Δ% 2019-18
1 ALBENGA	0	0.0%	0	0.0%	0	0.0%
2 ALGHERO	7,36	-2.0%	982,618	3.0%	2.7	53.8%
3 ANCONA	1,395	-10.7%	108,839	28.8%	5,093.9	-14.8%
4 AOSTA	0	0.0%	0	0.0%	0.0	0.0%
5 BARI	21,219	0.7%	2,921,146	1.6%	2,151.7	27.5%
6 BERGAMO	23,044	5.8%	3,460,248	6.2%	19,445.5	-1.6%
7 BOLOGNA	13,702	-5.7%	1,965,539	-0.3%	3,117.9	-9.1%
8 BOLZANO	1	-99.0%	0	-100.0%	0	0.0%
9 BRESCIA	3,248	21.9%	1,025	54.8%	11,180.9	25.6%
10 BRINDISI	13,282	4.7%	1,977,716	6.3%	9.8	-76.6%
11 CAGLIARI	24,662	6.6%	3,374,127	3.6%	4,194.0	21.7%
12 CATANIA	46,528	-1.1%	6,409,024	0.1%	5,593.2	-3.3%
13 COMISO	1,578	0.6%	241,406	-2.6%	0	0.0%
14 CROTONE	930	65.5%	153,917	83.7%	0	0.0%
15 CUNEO	401	27.7%	65,092	22.1%	0	0.0%
16 FIRENZE	3,754	-2.3%	378,648	-0.8%	16.5	18.8%
17 FOGGIA	0	0.0%	0	0.0%	0	0.0%
18 FORLÌ	0	0.0%	0	0.0%	0	0.0%
19 GENOVA	6,96	-0.6%	750,746	1.1%	106.3	26.4%
20 GROSSETO	2	0.0%	72	100.0%	0	0.0%
21 LAMEZIA TERME	16,155	13.3%	2,320,032	13.2%	44.3	-95.6%
22 LAMPEDUSA	4,156	1.3%	274,031	2.2%	15.3	4.4%
23 MARINA DI CAMPO	3	100.0%	103	100.0%	0	0.0%
24 MILANO LINATE **	35,075	-28.7%	3,332,406	-31.2%	951.3	-14.5%
25 MILANO MALPENSA	45,813	54.7%	5,785,998	41.4%	1,077.3	21.6%
26 NAPOLI	27,847	-2.3%	3,416,549	-1.2%	8,964.7	1.1%
27 OLBIA	11,148	-5.2%	1,389,297	-4.8%	85.2	-41.8%
28 PALERMO	37,788	2.7%	5,051,799	2.5%	1,160.6	217.8%
29 PANTELLERIA	3,683	3.9%	165,115	9.2%	24.4	-9.8%
30 PARMA	282	4.1%	43,058	0.9%	0	0.0%
31 PERUGIA	444	40.1%	54,191	8.2%	0	0.0%
32 PESCARA	2,649	-2.0%	306,728	5.1%	0	-77.7%
33 PISA	10,48	-2.6%	1,410,395	-2.1%	3,901.2	-10.3%
34 REGGIO CALABRIA	3,379	-3.5%	367,223	2.9%	38.8	146.9%
35 RIMINI	30	42.9%	88	-84.0%	0	0.0%
36 ROMA CIAMPINO	1,088	-21.4%	184,173	-19.6%	74.0	4.1%
37 ROMA FIUMICINO	97,273	-2.0%	11,051,812	-3.9%	6,001.4	50.2%
38 SALERNO	2	-50.0%	2	-98.6%	0	0.0%
39 TARANTO	0	-100.0%	0	-100.0%	0	-100.0%
40 TORINO	13,725	-15.6%	1,810,149	-9.3%	85.1	-24.6%
41 TRAPANI	3,901	-6.7%	325,359	-11.3%	11.9	-33.5%
42 TREVISO	6,36	0.6%	1,089,319	1.4%	0	0.0%
43 TRIESTE	4,689	-7.6%	441,856	-8.9%	31.4	-5.5%
44 VENEZIA	12,952	-6.4%	1,532,577	-1.2%	2,786.5	27.0%
45 VERONA	10,903	-0.5%	1,329,842	10.3%	10.6	-97.8%
<b>TOTAL</b>	<b>517,891</b>	<b>0.0%</b>	<b>64,472,265</b>	<b>0.7%</b>	<b>76,176.6</b>	<b>4.5%</b>

\* The 2019 passengers data includes infant passengers.

\*\* The Milan Linate Airport was shut down between the July 27<sup>th</sup> and the October 25<sup>th</sup> 2019, with the resulting transfer of the operational activities to the Milan Malpensa Airport.

## Overall international commercial traffic of 2019

### Scheduled and non-scheduled flights (arrival + departures)

AIRPORT	Movements		Passengers*		Cargo T	
	Number	Δ% 2019-18	Number	Δ% 2019-18	Tons	Δ% 2019-18
1 ALBENGA	0	0.0%	0	0.0%	0	0.0%
2 ALGHERO	2,637	0.8%	403,029	0.8%	0.2	100.0%
3 ANCONA	4,422	13.9%	375,053	3.4%	1,835.9	187.2%
4 AOSTA	0	0.0%	0	0.0%	0	0.0%
5 BARI	16,810	9.1%	2,442,645	14.2%	68.4	-9.0%
6 BERGAMO	68,320	3.0%	10,332,018	8.0%	99,501.7	-4.7%
7 BOLOGNA	59,181	11.6%	7,497,269	15.0%	34,932.3	-5.9%
8 BOLZANO	24	-75.3%	765	-58.3%	0	0.0%
9 BRESCIA	454	40.1%	8,576	210.7%	2,142.8	51.9%
10 BRINDISI	4,849	19.0%	722,923	18.5%	0.1	-81.3%
11 CAGLIARI	9,762	18.6%	1,386,731	26.3%	62.7	-55.4%
12 CATANIA	25,613	5.0%	3,746,053	9.8%	186.4	-69.3%
13 COMISO	745	-42.1%	110,973	-36.7%	0	0.0%
14 CROTONE	134	1,016.7%	18,079	100.0%	0	0.0%
15 CUNEO	223	-60.0%	24,695	-54.3%	0	0.0%
16 FIRENZE	25,387	6.8%	2,475,567	6.5%	38.6	-23.5%
17 FOGGIA	0	-100.0%	0	0.0%	0	-100.0%
18 FORLÌ	0	0.0%	0	0.0%	0	0.0%
19 GENOVA	8,002	2.4%	782,617	10.8%	43.4	-30.1%
20 GROSSETO	4	-97.2%	175	-97.7%	0	0.0%
21 LAMEZIA TERME	5,314	9.8%	797,798	14.5%	0	100.0%
22 LAMPEDUSA	0	-100.0%	0	-100.0%	0	0.0%
23 MARINA DI CAMPO	116	63.4%	1,766	146.0%	0	0.0%
24 MILANO LINATE **	34,510	-22.9%	3,204,508	-26.3%	6,633.6	-42.1%
25 MILANO MALPENSA	176,848	10.3%	22,919,640	12.0%	557,363.4	-2.5%
26 NAPOLI	49,959	13.5%	7,380,041	14.5%	987.1	3.7%
27 OLBIA	11,155	-0.9%	1,544,993	2.3%	8	32.5%
28 PALERMO	13,431	13.2%	1,975,768	18.0%	4.6	-44.5%
29 PANTELLERIA	2	-50.0%	3	100.0%	0	-100.0%
30 PARMA	249	-16.7%	28,616	-12.2%	0	0.0%
31 PERUGIA	1,068	-5.6%	163,981	-3.4%	0	0.0%
32 PESCARA	2,361	2.6%	389,599	6.6%	0.9	-95.5%
33 PISA	27,131	-2.2%	3,936,229	-1.8%	8,456.2	23.9%
34 REGGIO CALABRIA	18	200.0%	125	-2.3%	0	0.0%
35 RIMINI	2,578	28.1%	394,495	29.9%	4.4	-87.0%
36 ROMA CIAMPINO	33,904	0.8%	5,667,648	1.5%	18,339.5	0.8%
37 ROMA FIUMICINO	209,135	1.7%	32,303,075	2.9%	188,472.2	-6.6%
38 SALERNO	2	100.0%	2	100.0%	0	0.0%
39 TARANTO	256	3.2%	603	1,210.9%	8,695.8	29.0%
40 TORINO	18,612	-14.7%	1,885,023	-9.2%	70.1	-76.6%
41 TRAPANI	520	-30.5%	81,871	-20.8%	0.2	7,600.0%
42 TREVISO	12,660	-4.2%	2,144,164	-2.6%	0	0.0%
43 TRIESTE	3,788	19.4%	337,946	18.8%	36.7	-55.9%
44 VENEZIA	76,221	0.4%	9,974,724	4.5%	56,140.8	3.2%
45 VERONA	17,788	-3.4%	2,268,027	3.1%	599.4	4.6%
<b>TOTAL</b>	<b>924,193</b>	<b>3.2%</b>	<b>127,727,813</b>	<b>5.7%</b>	<b>984,625.5</b>	<b>-3.3%</b>

\* The 2019 passengers data includes infant passengers.

\*\* The Milan Linate Airport was shut down between the July 27<sup>th</sup> and the October 25<sup>th</sup> 2019, with the resulting transfer of the operational activities to the Milan Malpensa Airport.

## Air Taxi and General Aviation traffic 2019

Airports open to commercial air traffic

AIRPORT	Movements		Passengers		Cargo T	
	Air taxi	General Aviation	Air taxi	General Aviation	Air taxi	General Aviation
1 ALBENGA	645	1,898	1,066	1,800	0.0	0.0
2 ALGHERO	290	700	443	621	0.0	0.0
3 ANCONA	1,348	3,337	1,368	1,396	0.0	1.4
4 AOSTA	95	6,967	208	3,704	0.0	0.0
5 BARI	1,523	4,277	2,462	1,376	0.9	0.1
6 BERGAMO	1,275	2,733	2,935	1,116	0.0	0.0
7 BOLOGNA	2,728	1,678	5,982	2,694	0.0	0.0
8 BOLZANO	1,428	11,727	996	2,745	0.0	0.0
9 BRESCIA	1,614	5,632	2,789	3,822	0.0	12.9
10 BRINDISI	915	2,471	1,752	1,062	0.0	0.0
11 CAGLIARI	1,561	2,730	3,724	438	0.0	4.0
12 CATANIA	1,545	1,412	3,068	1,418	0.2	0.0
13 COMISO	117	545	136	266	0.0	0.0
14 CROTONE	26	6	30	4	0.0	0.8
15 CUNEO	1,730	2,033	1,127	1,481	0.0	0.0
16 FIRENZE	4,153	3,419	7,260	5,063	0.0	0.0
17 FOGGIA	40	828	54	321	0.0	0.0
18 FORLÌ	26	14	27	8	0.0	0.0
19 GENOVA	1,984	3,700	3,376	2,800	0.0	0.4
20 GROSSETO	988	575	1,873	915	0.0	0.0
21 LAMEZIA TERME	0	640	0	0	0.0	1,257.8
22 LAMPEDUSA	336	747	898	158	0.0	0.0
23 MARINA DI CAMPO	196	3,256	320	3,072	0.0	0.0
24 MILANO LINATE *	7,084	9,028	22,154	9,634	0.0	0.0
25 MILANO MALPENSA	3,451	7,912	11,950	6,359	0.0	41.1
26 NAPOLI	5,749	958	7,304	0	0.0	0.0
27 OLBIA	7,806	3,733	17,148	7,491	0.0	0.0
28 PALERMO	1,028	1,372	2,119	1,376	0.0	0.0
29 PANTELLERIA	137	304	288	331	0.1	0.0
30 PARMA	977	2,836	1,684	1,595	0.0	0.0
31 PERUGIA	1,066	1,270	2,113	1,220	0.0	0.0
32 PESCARA	1,932	2,207	2,270	1,195	6.9	0.0
33 PISA	4,112	1,911	7,111	2,799	0.0	37.8
34 REGGIO CALABRIA	421	1,022	328	730	0.0	0.0
35 RIMINI	1,177	1,006	2,057	873	0.0	0.0
36 ROMA CIAMPINO	8,289	8,605	16,611	6,917	0.0	34.0
37 ROMA FIUMICINO	135	3,142	202	31,677	1.1	67.4
38 SALERNO	3,980	1,649	9,606	1,791	0.0	0.0
39 TARANTO	87	714	134	152	0.0	0.0
40 TORINO	4,544	6,183	276,351	1,634	41.7	11.7
41 TRAPANI	334	573	778	420	0.7	0.0
42 TREVISO	2,022	3,063	3,901	1,943	0.0	0.0
43 TRIESTE	707	4,448	1,090	978	0.0	0.1
44 VENEZIA	3,886	2,101	7,597	3,928	0.0	44.0
45 VERONA	2,494	1,954	4,380	3,831	0.0	1.3
<b>TOTAL</b>	<b>85,981</b>	<b>127,316</b>	<b>439,070</b>	<b>123,154</b>	<b>51.6</b>	<b>1,514.8</b>

\* The Milan Linate Airport was shut down between the July 27<sup>th</sup> and the October 25<sup>th</sup> 2019, with the resulting transfer of the operational activities to the Milan Malpensa Airport.

## 2019 Ranking of the Italian airports based on total number of passengers carried Scheduled and non-scheduled flights

AIRPORT	Passengers	Δ% 2019-18	Overall incidence (%)	Distribution (%)	
				Domestic	International
1 ROMA FIUMICINO	43,354,887	1.1%	22.7%	25.5%	74.5%
2 MILANO MALPENSA	28,705,638	16.9%	15.0%	20.2%	79.8%
3 BERGAMO	13,792,266	7.5%	7.2%	25.1%	74.9%
4 VENEZIA	11,507,301	3.7%	6.0%	13.3%	86.7%
5 NAPOLI	10,796,590	9.0%	5.6%	31.6%	68.4%
6 CATANIA	10,155,077	3.5%	5.3%	63.1%	36.9%
7 BOLOGNA	9,462,808	11.5%	4.9%	20.8%	79.2%
8 PALERMO	7,027,567	6.5%	3.7%	71.9%	28.1%
9 MILANO LINATE *	6,536,914	-28.8%	3.4%	51.0%	49.0%
10 ROMA CIAMPINO	5,851,821	0.7%	3.1%	3.1%	96.9%
11 BARI	5,363,791	7.0%	2.8%	54.5%	45.5%
12 PISA	5,346,624	-1.9%	2.8%	26.4%	73.6%
13 CAGLIARI	4,760,858	9.3%	2.5%	70.9%	29.1%
14 TORINO	3,695,172	-9.3%	1.9%	49.0%	51.0%
15 VERONA	3,597,869	5.6%	1.9%	37.0%	63.0%
16 TREVISO	3,233,483	-1.2%	1.7%	33.7%	66.3%
17 LAMEZIA TERME	3,117,830	13.5%	1.6%	74.4%	25.6%
18 OLBIA	2,934,290	-1.2%	1.5%	47.3%	52.7%
19 FIRENZE	2,854,215	5.5%	1.5%	13.3%	86.7%
20 BRINDISI	2,700,639	9.3%	1.4%	73.2%	26.8%
21 GENOVA	1,533,363	5.8%	0.8%	49.0%	51.0%
22 ALGHERO	1,385,647	2.3%	0.7%	70.9%	29.1%
23 TRIESTE	779,802	1.3%	0.4%	56.7%	43.3%
24 PESCARA	696,327	5.9%	0.4%	44.0%	56.0%
25 ANCONA	483,892	8.2%	0.3%	22.5%	77.5%
26 TRAPANI	407,230	-13.4%	0.2%	79.9%	20.1%
27 RIMINI	394,583	29.7%	0.2%	0.0%	100.0%
28 REGGIO CALABRIA	367,348	2.9%	0.2%	100.0%	0.0%
29 COMISO	352,379	-16.8%	0.2%	68.5%	31.5%
30 LAMPEDUSA	274,031	2.2%	0.1%	100.0%	0.0%
31 PERUGIA	218,172	-0.8%	0.1%	24.8%	75.2%
32 CROTONE	171,996	105.3%	0.1%	89.5%	10.5%
33 PANTELLERIA	165,118	9.2%	0.1%	100.0%	0.0%
34 CUNEO	89,787	-16.4%	0.0%	72.5%	27.5%
35 PARMA	71,674	-4.8%	0.0%	60.1%	39.9%
36 BRESCIA	9,601	180.6%	0.0%	10.7%	89.3%
37 MARINA DI CAMPO	1,869	160.3%	0.0%	5.5%	94.5%
38 BOLZANO	765	-90.3%	0.0%	0.0%	100.0%
39 TARANTO	603	939.7%	0.0%	0.0%	100.0%
40 GROSSETO	247	-96.8%	0.0%	29.1%	70.9%
41 SALERNO	4	-97.2%	0.0%	50.0%	50.0%
42 ALBENGA	0	0.0%	0.0%	0.0%	0.0%
43 AOSTA	0	0.0%	0.0%	0.0%	0.0%
44 FOGGIA	0	0.0%	0.0%	0.0%	0.0%
45 FORLÌ	0	0.0%	0.0%	0.0%	0.0%
<b>TOTAL</b>	<b>192,200,078</b>	<b>4.0%</b>	<b>100.0%</b>	<b>33.5%</b>	<b>66.5%</b>

\* The Milan Linate Airport was shut down between the July 27<sup>th</sup> and the October 25<sup>th</sup> 2019, with the resulting transfer of the operational activities to the Milan Malpensa Airport.

## Overall traffic of the top 50 air carriers operating in Italy - Scheduled and non-scheduled flights - Comparison between 2019 and 2018

AIR CARRIER BUSINESS NAME	AIR CARRIER COUNTRY OF ORIGIN	Passengers carried		Δ% 2019/2018
		2019	2018	
1 Ryanair	Ireland	40,527,373	37,882,633	7.0%
2 Alitalia Societa Aerea Italiana Spa	Italy	21,770,174	21,987,408	-1.0%
3 EasyJet Europe Airline Gmbh	Austria	11,818,020		
4 Easyjet UK Ltd	United Kingdom	6,416,675	17,717,932	2.9%
5 Vueling Airlines	Spain	6,387,056	6,245,931	2.3%
6 Wizz Air Hungary Ltd	Hungary	5,145,132	4,748,674	8.3%
7 Deutsche Lufthansa AG	Germany	4,287,437	4,909,295	-12.7%
8 Volotea, S.L.	Spain	3,562,495	3,130,883	13.8%
9 British Airways	United Kingdom	3,516,364	3,644,642	-3.5%
10 Air France	France	3,077,872	2,889,197	6.5%
11 Eurowings Gmbh	Germany	2,664,186	2,651,451	0.5%
12 Air Italy Spa	Italy	2,130,856	1,942,766	9.7%
13 KLM Royal Dutch Airlines	Netherlands	1,994,151	1,993,193	0.0%
14 Emirates	United Arab Emirates	1,912,055	1,950,164	-2.0%
15 Turk Hava Yollari (Turkish Airlines Co.)	Turkey	1,689,288	1,678,768	0.6%
16 Air Dolomiti Spa	Italy	1,630,234	1,077,408	51.3%
17 Iberia - Lineas Aereas De Espana, S.A. Operadora	Spain	1,609,532	1,535,069	4.9%
18 Neos Spa	Italy	1,583,398	1,246,178	27.1%
19 Blue Panorama Airlines Spa	Italy	1,393,020	1,552,317	-10.3%
20 Transportes Aereos Portugueses, E.P.	Portugal	1,284,525	1,126,792	14.0%
21 Aeroflot - Russian Airlines	Russia	1,279,864	1,159,898	10.3%
22 Blue Air Aviation S.A.	Romania	1,194,969	1,768,516	-32.4%
23 Swiss International Air Lines Ltd	Switzerland	1,147,705	1,145,224	0.2%
24 Brussels Airlines	Belgium	1,111,812	1,064,418	4.5%
25 Qatar Airways Company	Qatar	1,050,880	946,487	11.0%
26 American Airlines Inc.	United States of America	992,463	967,874	2.5%
27 EasyJet Switzerland SA	Switzerland	933,574	766,503	21.8%
28 Norwegian Air Shuttle AS	Norway	913,624	682,725	33.8%
29 Ernest Spa	Italy	904,083	885,442	2.1%
30 Delta Air Lines, Inc.	United States of America	891,318	610,793	45.9%
31 Air Europa	Spain	885,236	753,861	17.4%
32 Lauda Motion Gmbh	Austria	872,235	178,944	387.4%
33 Austrian Airlines (AUA) AG	Austria	813,868	778,056	4.6%
34 Scandinavian Airlines System	Sweden	793,813	764,378	3.9%
35 Transavia Holland B.V.	Netherlands	730,669	727,785	0.4%
36 Aegean Airlines	Greece	707,544	661,877	6.9%
37 Jet2.com Ltd	United Kingdom	688,412	621,646	10.7%
38 United Airlines, Inc.	United States of America	599,088	496,014	20.8%
39 Pobeda Airlines, Llc	Russia	591,982	595,074	-0.5%
40 Aer Lingus	Ireland	586,501	470,189	24.7%
41 Air China	China	582,745	379,229	53.7%
42 Etihad Airways	United Arab Emirates	523,666	474,265	10.4%
43 Air Malta PLC.	Malta	518,494	566,808	-8.5%
44 Pegasus Hava Tasimaciligi A.S. (Pegasus)	Turkey	493,461	456,343	8.1%
45 El Al - Israel Airlines Ltd.	Israel	489,311	388,190	26.0%
46 Finnair OYJ	Finland	474,201	435,355	8.9%
47 Ukraine International Airlines	Ukraine	469,461	482,100	-2.6%
48 Norwegian Air International	Ireland	461,448	794,550	-41.9%
49 Tui Airways Limited	United Kingdom	455,543	391,667	16.3%
50 Transavia France	France	446,980	457,365	-2.3%

In order to ensure a correct ranking, the number of domestic passengers includes only DEPARTURES.

## 2019 Ranking of the top 20 air carriers operating in Italy based on the number of passengers carried - Scheduled and non-scheduled flights

### Domestic traffic

	AIR CARRIER BUSINESS NAME	AIR CARRIER COUNTRY OF ORIGIN	Passengers carried (departures)
1	Alitalia Societa Aerea Italiana Spa	Italy	11,879,166
2	Ryanair	Ireland	11,296,366
3	EasyJet Europe Airline Gmbh	Austria	2,851,712
4	Volotea, S.L.	Spain	2,431,025
5	Air Italy Spa	Italy	1,459,489
6	Easyjet UK Ltd	United Kingdom	700,749
7	Blue Air Aviation S.A.	Romania	524,792
8	Vueling Airlines	Spain	448,835
9	Danish Air Transport A/S	Denmark	207,598
10	Blue Panorama Airlines Spa	Italy	182,379
11	Neos Spa	Italy	98,597
12	Alitalia Cityliner Spa	Italy	46,327
13	Alba Star, S.A.	Spain	34,118
14	Bulgaria Air	Bulgaria	21,873
15	Air Horizont	Malta	20,707
16	Air Dolomiti Spa	Italy	19,877
17	Bulgarian Air Charter	Bulgaria	3,400
18	Aero4M, D.O.O.	Slovenia	2,394
19	Tayaran Jet	Bulgaria	2,269
20	JETSTAR AIRWAYS PTY, LTD	Australia	2,256

### International traffic

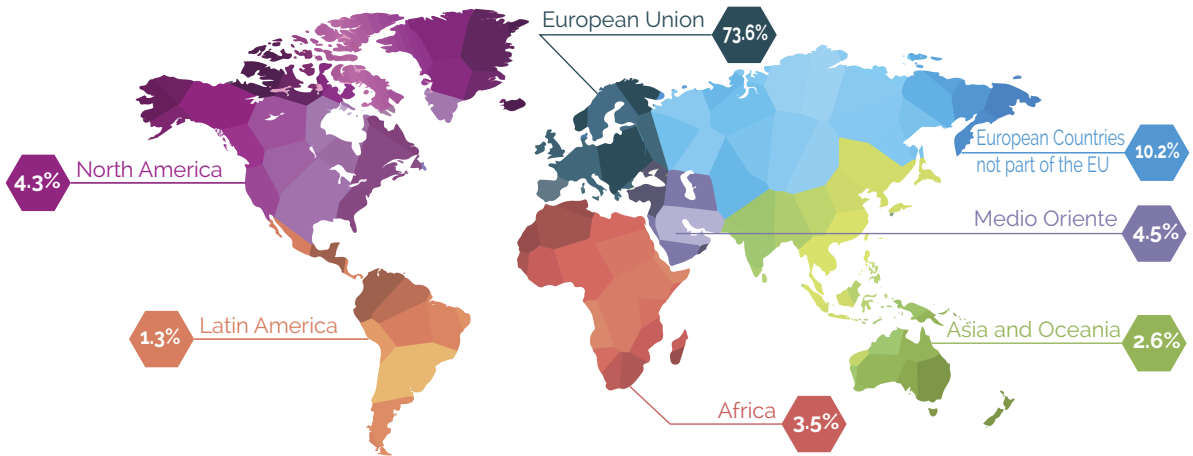
	AIR CARRIER BUSINESS NAME	AIR CARRIER COUNTRY OF ORIGIN	Passengers carried (arrivals + departures)
1	Ryanair	Ireland	29,231,007
2	Alitalia Societa Aerea Italiana Spa	Italy	9,891,008
3	EasyJet Europe Airline Gmbh	Austria	8,966,308
4	Vueling Airlines	Spain	5,938,221
5	Easyjet UK Ltd	United Kingdom	5,715,926
6	Wizz Air Hungary Ltd	Hungary	5,144,968
7	Deutsche Lufthansa AG	Germany	4,287,247
8	British Airways	United Kingdom	3,516,277
9	Air France	France	3,077,671
10	Eurowings Gmbh	Germany	2,664,186
11	KLM Royal Dutch Airlines	Netherlands	1,994,073
12	Emirates	United Arab Emirates	1,912,055
13	Turk Hava Yollari (Turkish Airlines Co.)	Turkey	1,689,288
14	Air Dolomiti Spa	Italy	1,610,357
15	Iberia - Lineas Aereas De Espana, S.A. Operadora	Spain	1,609,357
16	Neos Spa	Italy	1,484,801
17	Transportes Aereos Portugueses. E.P.	Portugal	1,284,525
18	Aeroflot - Russian Airlines	Russia	1,279,864
19	Blue Panorama Airlines Spa	Italy	1,210,641
20	Swiss International Air Lines Ltd	Switzerland	1,147,705



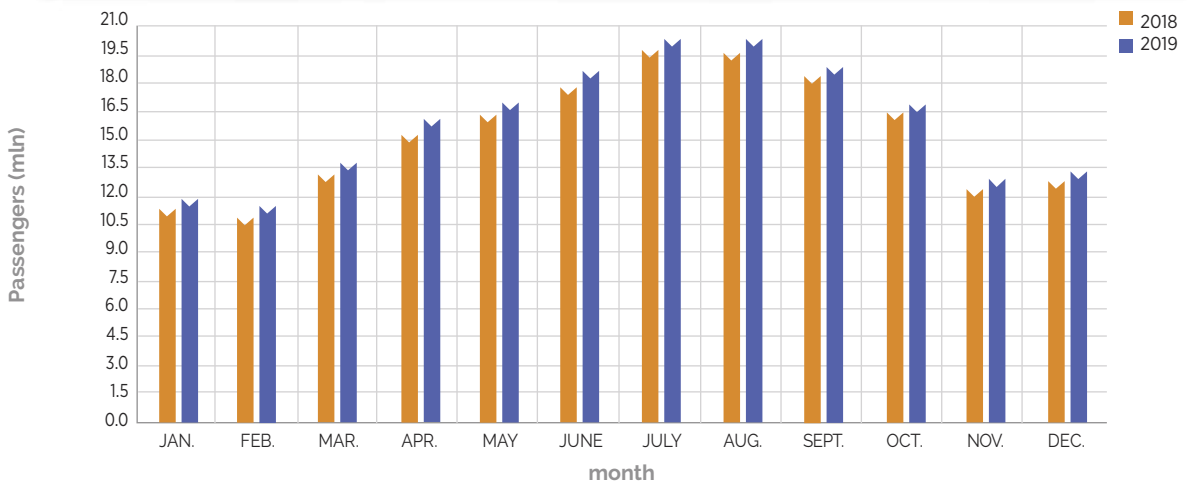
Primary air carrier in each Italian major airport based on the number of passengers carried in 2019 - Scheduled and non-scheduled flights

AIRPORT	AIR CARRIER BUSINESS NAME	AIR CARRIER COUNTRY OF ORIGIN
1 ALBENGA	<i>no scheduled and charter traffic</i>	-
2 ALGHERO	Alitalia Societa Aerea Italiana Spa	Italy
3 ANCONA	Ryanair	Ireland
4 AOSTA	<i>no scheduled and charter traffic</i>	-
5 BARI	Ryanair	Ireland
6 BERGAMO	Ryanair	Ireland
7 BOLOGNA	Ryanair	Ireland
8 BOLZANO	Luxair - Societe Luxembourgeoise De Navigation Aerienne S.A.	Luxembourg
9 BRESCIA	Neos Spa	Italy
10 BRINDISI	Ryanair	Ireland
11 CAGLIARI	Ryanair	Ireland
12 CATANIA	Ryanair	Ireland
13 COMISO	Ryanair	Ireland
14 CROTONE	Ryanair	Ireland
15 CUNEO	Ryanair	Ireland
16 FIRENZE	Vueling Airlines	Spain
17 FOGGIA	<i>no scheduled and charter traffic</i>	-
18 FORLÌ	<i>no scheduled and charter traffic</i>	-
19 GENOVA	Volotea, S.L.	Spain
20 GROSSETO	Maleth Aero AOC Ltd	Malta
21 LAMEZIA TERME	Ryanair	Ireland
22 LAMPEDUSA	Danish Air Transport A/S	Denmark
23 MARINA DI CAMPO	Zimex Aviation Ltd	Switzerland
24 MILANO LINATE	Alitalia Societa Aerea Italiana Spa	Italy
25 MILANO MALPENSA	EasyJet Europe Airline Gmbh	Austria
26 NAPOLI	EasyJet Europe Airline Gmbh	Austria
27 OLBIA	Air Italy Spa	Italy
28 PALERMO	Ryanair	Ireland
29 PANTELLERIA	Danish Air Transport A/S	Denmark
30 PARMA	Ryanair	Ireland
31 PERUGIA	Ryanair	Ireland
32 PESCARA	Ryanair	Ireland
33 PISA	Ryanair	Ireland
34 REGGIO CALABRIA	Alitalia Societa Aerea Italiana Spa	Italy
35 RIMINI	Ural Airlines	Russia
36 ROMA CIAMPINO	Ryanair	Ireland
37 ROMA FIUMICINO	Alitalia Societa Aerea Italiana Spa	Italy
38 SALERNO	<i>unknown carrier</i>	<i>unknown nation</i>
39 TARANTO	Smartwings, A.S.	Czech Republic
40 TORINO	Ryanair	Ireland
41 TRAPANI	Ryanair	Ireland
42 TREVISO	Ryanair	Ireland
43 TRIESTE	Ryanair	Ireland
44 VENEZIA	EasyJet Europe Airline Gmbh	Austria
45 VERONA	Volotea, S.L.	Spain

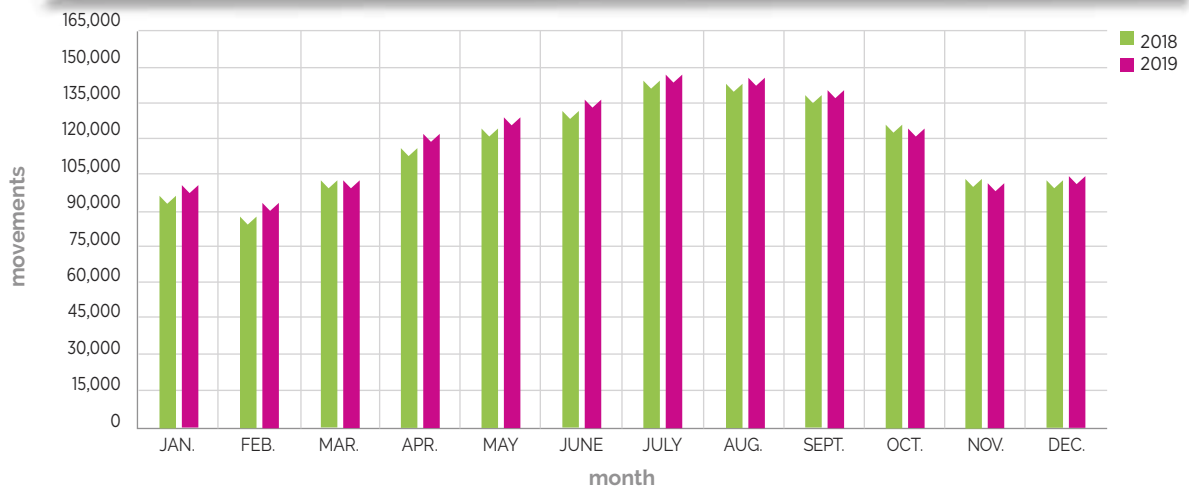
## Passenger traffic distribution by continent of origin/destination



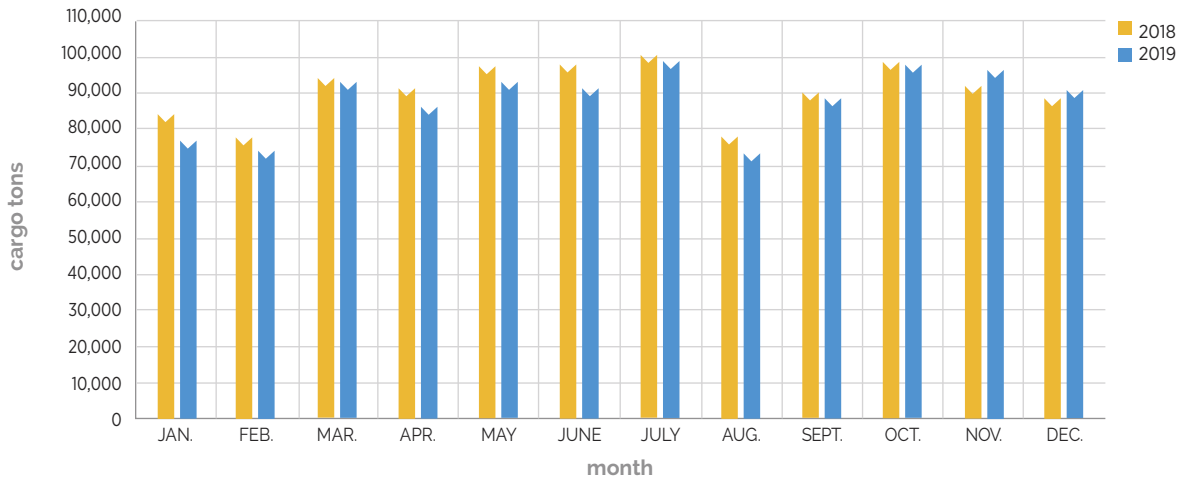
## Scheduled and non-scheduled commercial traffic Passengers – monthly comparison 2018/2019



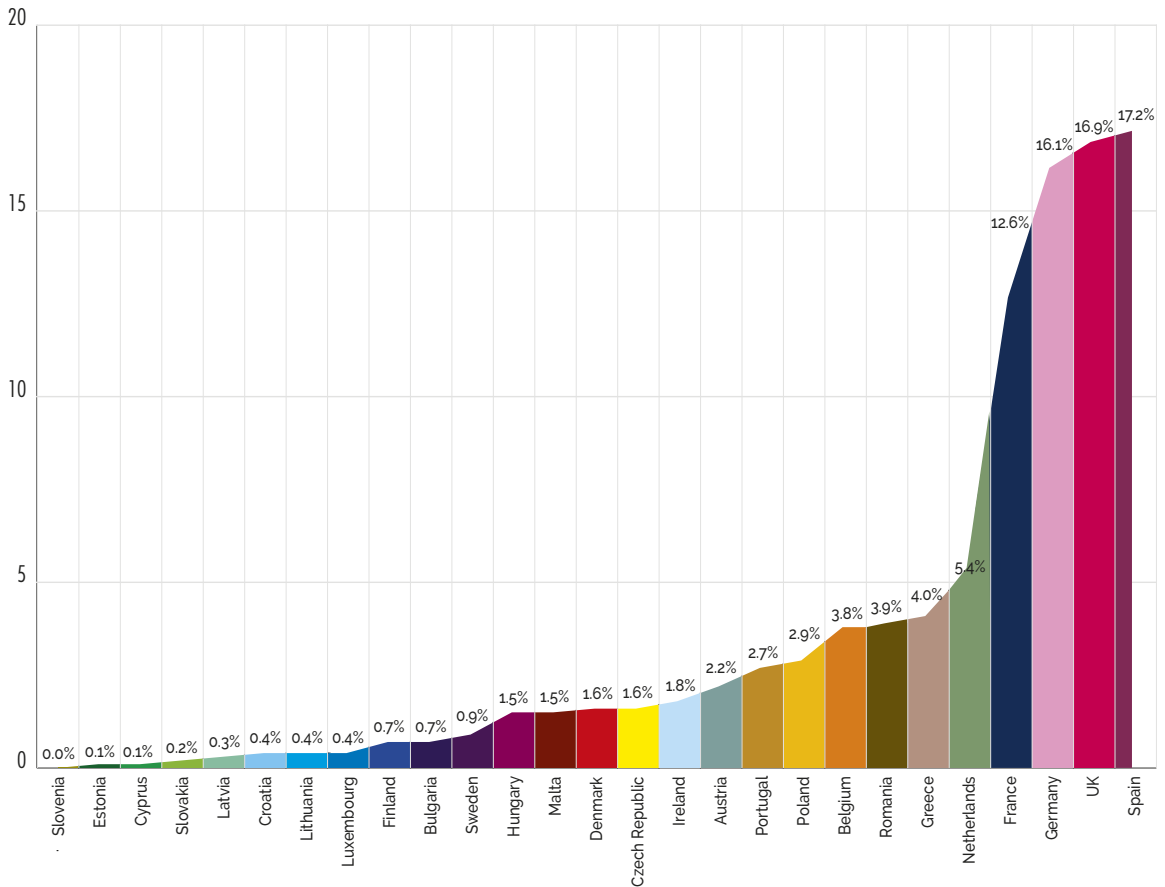
## Scheduled and non-scheduled commercial traffic Movements - monthly comparison 2018/2019



Scheduled and non-scheduled commercial traffic  
Cargo (tons) - monthly comparison 2018/2019



2019 Passenger traffic distribution by Origin/Destination - EU Countries



## TRAFFIC DATA LEGEND

**Cargo:** all the goods and mail loaded or unloaded from an aircraft. The express parcels and the diplomatic pouches are included. The passengers' baggage, the goods and the mail in direct transit are excluded. In the traffic data, cargo is stated in tonnes.

**Movement:** take-off or landing operation of an aircraft that takes place in an airport. According to the airport traffic survey, the arrival and departure of the same aircraft are counted as two movements. The movements related to air transports of heads of State and government and to cancelled flights are not included.

**Passenger:** any individual who makes an air travel, excluding air crew and airborne staff on duty. Infant passengers are included.

**Direct transit passenger:** passenger who, after a short stop, continues their journey on the same aircraft on a flight having the same flight number as the flight on which they arrive. In the airport traffic detection, the direct transit passengers are counted once (at arrival or departure). Passengers who continue their journey on an aircraft bearing different flight number are indirect transit passengers. They are counted twice: once upon arrival and once on departure.

**Commercial air services:** a flight or a series of flights dedicated to passengers' public transport and/or goods and mail for consideration or rental service. The services can be scheduled or not scheduled.

**General aviation air services:** services different from the commercial air services. Among the others they include private flights, training, positioning and test flights, flights for parachuting operations and aerial work services. These include the services in which the aircraft is used to carry out specialised performances such as aerial photography flights, advertising flights, air ambulance, agriculture/substances dropping, etc.

**Scheduled commercial air service:** commercial air service operated in accordance to a published timetable or on a regular basis such as to constitute a recognisable systematic series.

**Non-scheduled commercial air service:** commercial air service different from a scheduled air service. It included charter and air taxi services.

**Non-scheduled air service:** flight operated to transport passengers or goods under a rental agreement with one or more contracting parties for the use of the aircraft full capacity.

**Non-commercial or general aviation air transport:** transport other than a commercial air transport, essentially including the activities of aero-clubs, flying schools and small private planes, and services of aerial work, aerial photography and survey, advertising, substances dropping, transport of external loads, etc.

**International air transport:** air transport carried out through connections with airports located outside the national boundaries.

**Non-EU international air transport:** air transport of passengers, goods and mail carried out by an air carrier from/to an airport located on the national territory to/from an airport located in the territory of a non-EU Country.

**EU international air transport:** air transport of passengers, goods and mail carried out by an air carrier from/to an airport located on the national territory to/from an airport located in the territory of an EU Country.

**National or domestic air transport:** air transport of passengers, goods and mail carried out by an air carrier between Italian airports.

1

THE INSTITUTION

2

SAFETY

3

SECURITY

4

AIRPORTS

5

ECONOMIC REGULATION

6

AIRSPACE REGULATION

7

ENVIRONMENT

8

INTERNATIONAL ACTIVITY



# 1

## THE INSTITUTION

Sheet 1.1

**31**

**Role and organisation**

Sheet 1.2

**32**

**Human resources**

Sheet 1.3

**36**

**Financial resources**

Sheet 1.4

**37**

**Stakeholders**

Sheet 1.5

**38**

**Performance Plan**

Sheet 1.6

**41**

**Prevention of corruption  
and transparency**

Sheet 1.7

**42**

**Technological innovation**

Sheet 1.8

**47**

**Legal activity**

Sheet 1.9

**48**

**Communication and information**

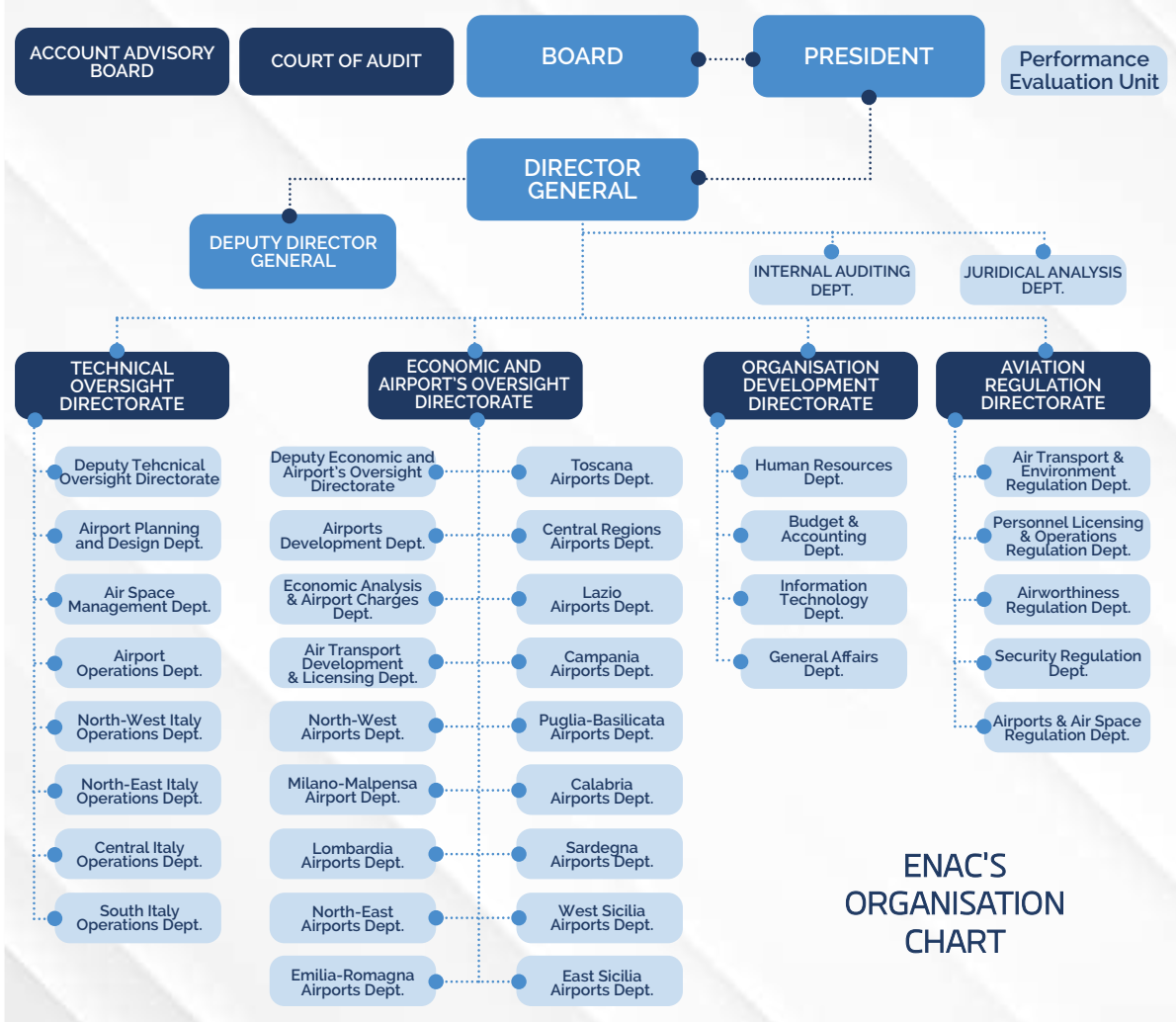
# ROLE AND ORGANISATION

ENAC is the Italian single Authority in technical regulation, certification, oversight and control of civil aviation with powers conferred by the Italian Navigation Code. Its primary objectives are set forth in the statutory mandate and highlighted in its Mission:

**“ENAC, the Italian Civil Aviation Authority, in carrying out its functions of safety regulation, certification, surveillance and oversight in the civil aviation field, supports the development of the civil aviation by ensuring the Country, in particular consumers and industry, the safety of the aviation activities, the protection of the rights, the quality of services and fair competition within an environmentally friendly approach”.**

ENAC has established a strong connection and collaboration with a number of international bodies in which it holds a leadership position: ICAO (International Civil

Aviation Organization), the United Nations specialised agency charged with the task of defining common regulatory and technical civil aviation standards within its member Countries; as a member of the ICAO Council, Italy provides its contribution in the following areas: Technology and development policies; European Union; ECAC (European Civil Aviation Conference), an intergovernmental organization for convergence and cooperation in the field of air transport at pan-European level; EASA (European Aviation Safety Agency), an EU agency responsible for defining common levels of safety and environmental protection in civil aviation within the EU member Countries; Eurocontrol, an organization that plans and coordinates the implementation of a harmonised European air traffic management system.



ENAC'S ORGANISATION CHART

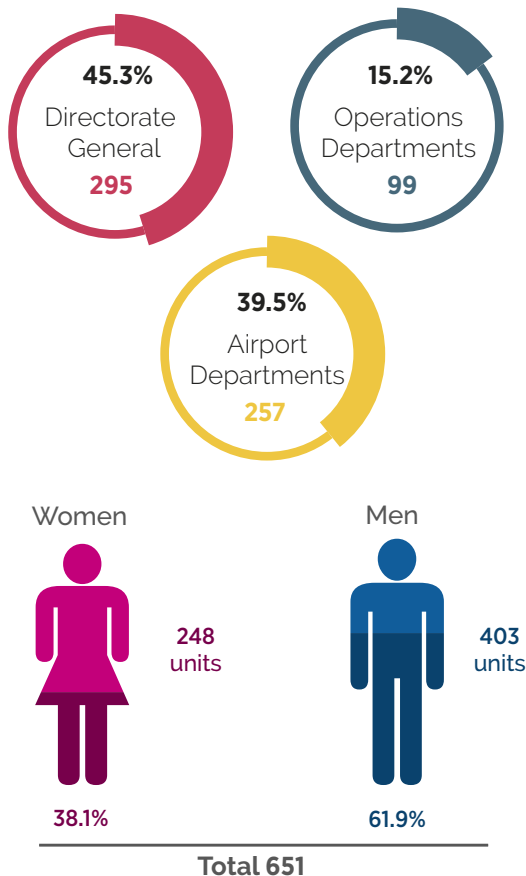


# HUMAN RESOURCES

In carrying out its institutional mandate, ENAC can count on a highly specialised staff. As at 31 December 2019, ENAC counted 651 members employed in four separate areas of activity.

ENAC staff serving at 31 December 2019		
AREAS OF ACTIVITY	UNITS	%
Executives	37	5.7
Professionals (124 graduates and 19 high school graduates)	143	22.0
Operational (14 flight inspectors, 5 communication/air traffic inspectors and 179 airport inspectors)	198	30.4
Technical and Economic-Administrative	273	41.9
<b>TOTAL</b>	<b>651</b>	<b>100</b>

Distribution in the territory **Total 651**



Throughout 2019, ENAC concluded three calls for applications, pre-emptively authorised in the 2018 Budget Law (L. 205/2017 amendment 576), in addition to the existing capacity of recruitment and within the limits of personnel plan, in order to guarantee the compliance with the safety standards established by the national regulation. The completed calls for applications regarded the recruitment of:

- 61 airport inspectors
- 25 professional engineers
- 6 flight inspectors

mainly to assign to the branches located in the national territory, for a total number of 92 additional staff members. After the conclusion of the Commissions work, the three rankings have been established and, consequently, all the winners have been summoned in order to choose the location and, at a later time, to sign the contract.

The entry into service of the new staff members will be gradually completed within the first semester of 2020.

## Internal staff training

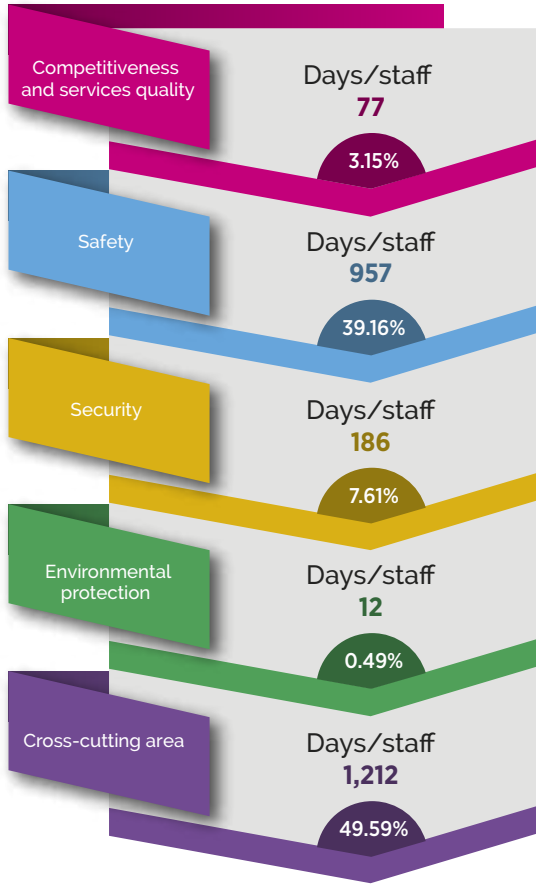
The training activities that took place in 2019 have been realised on the basis of a planning that took into consideration the needs identified at the end 2018 and the other ones showed during the year.

The activity to draw up the next Three-year training Plan has continued through the elaboration of the Courses Catalogue aimed at developing the staff skills, defined on the basis of the institutional activities carried out. The identified courses will characterise the Training Development Paths for every ENAC Strategic Areas (Safety, Security, Competitiveness and services quality, Environmental protection, Cross-cutting area).

Throughout 2019, the ENAC staff took part in 270 internal training courses both in house (planned and held by internal experts) or external (catalogue). The staff attended some 2,444 days of training, with an average - calculated on the 1,061 participants - of 3.8 days of training per person. The majority of the training activities regarded the Strategic Cross-cutting Area that involves the entire staff of ENAC; this area includes all the mandatory courses on the topics of anticorruption and transparency, safety in the workplace and Internal document management System (GEDOC). With this regard, after the update of the GEDOC platform,

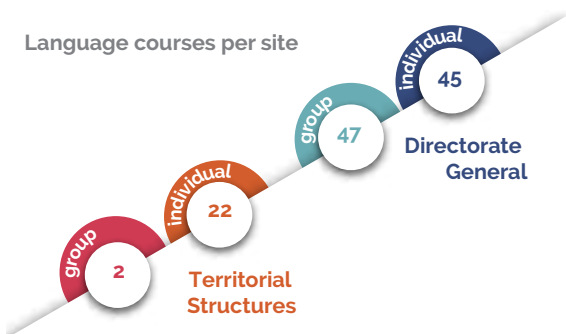
improved in both the interface and functionality, all the staff has been significantly trained in e-learning mode.

Training days/staff unit per Strategic Areas



The activity related to the development of the linguistic competence has been relevant; the courses (group and individual teaching) started in the second semester of 2018 and the majority of them ended in December 2019. The total amount of hours provided is 3,855 with an average per person of 33 hours.

Language courses per site



A training activity of considerable importance has been the one aimed at developing and maintaining the competences of the staff involved in the activities of the Safety strategic area, in coherence with the regulations of the air transport sector that establish the compulsoriness of it in order to achieve and maintain a valid qualification.

The airport inspection staff participated in training courses aimed at maintaining the qualifications of Ramp Inspection Operator (SAFA), Security and the members of the National Aviation Quality Control Team; for the latter, it has been organised the course Train the Trainer, established by the sectoral regulation and aimed at increasing the number of certified instructors on the territory.

In 2019, in order to meet the supervision operational needs of the ENAC structures at airports, training programmes took place to qualify new airport inspectors and to achieve additional specialisations in the specialties of the Bill of Rights and Quality of Airport Services, Security and Handling. The On the Job Training activities, preparatory to the qualification issuance, have all been started.

Courses participants per airport inspective specialties	
Inspection Specialty	Courses participants
Bill of Rights and Quality of Airport Services	10
Security	13
Handling	9
<b>Total</b>	<b>32</b>

Regarding the topic of Anticorruption, the in-house courses treated the specific training on the Transparent Administration Portal for the staff that operate on the platform: two-day training for 32 operators.

In 2019, the participation percentage to training activities of contractual categories of ENAC staff is distributed as follow:

Qualification	% of courses participation
Executives	8.8
Professionals	36.8
Officials	41.5
Collaborators	12.9

## Stakeholder Training

In 2019, the training activity for external subjects has continued, as for the "Alternanza Scuola Lavoro" project for

Lindbergh Institute of Milan which saw the participation of 12 students of the 3<sup>rd</sup> and 4<sup>th</sup> year.

Training activities for external subjects in 2019	Companies	Days	Participants
BUSINESS AVIATION SU CM/SMS/PBO Workshop ENAC	Several companies in the field of General Aviation	2	71
EASA Class 1 Aeromedical Examiner (AME) Certification process - Training Course ex EASA MED.D.015(d) and "MED Module of the EMPIC EAP® software for documenting aeromedical examinations in accordance with applicable EASA and ENAC Regulations procedures"	Etiihad Airways Medical Centre	2	3
ENAC Regulation "Licence of Operator of Flight Information Service"	AFIU (Aerodrome Flight Information Unit) Aosta, Trento, Reggio Emilia, Marina di Campo, Lucca, Biella	1	14
EMPIC® Mod MED for AME Class 2/LAPL/CC - 8 editions	Medical doctor for Aviation	1	74
Safety Assessment according to Regulation 2017/373 [EUROCONTROL]	ENAV	2	29
Instructors FISO/MET-AFIS - Update	Apt of Capannori, Apt Reggio Emilia, Alatoscana, AVDA, Soc. Apt. Cerrione, Trentino Trasporti	1	10
ERCS Training	CAAs Estonia, Bulgaria, Malta, Ciprus, Lithuania, Romania	1	24
Compliance monitoring and safety management system for Italian helicopters operators	Several companies in the field of Commercial Aviation	2	75
"Alternanza Scuola Lavoro" Project	Technical High School for transport and logistic Lindbergh Flying School of Milan	10	12
Advanced course Module MED EMPIC-EAP® for AME Examiners	Aeromedical Examiners	1	6
Workshop EASA Reg. (UE) 373/2017	ENAV	2	35
Workshop Occurrence Reporting and Safety	Skydiving school directors, Skydiving senior instructors	1	90

At last, all the flight inspectors (fixed-wing and rotary wing) have started the flight training to maintain/renew the owned licences that are necessary to execute both the institutional activities and the achievement of the SFI -

Synthetic Flight Instructor and TRI - Type Rating Instructor Certifications, in order to comply also with the agreements with EASA.

### #E-TEC ENAC TECHNOLOGY CONTEST

ENAC promotes the development and the innovation of the aviation sector with a careful eye not only on the society needs and environmental themes but also on the evolving technologies that are guiding the society and our sector towards something that can be described as the new industrial revolution. In particular it is about digital technologies, robotics, artificial intelligence, augmented and virtual reality, internet of things and, lastly, diffusion of 5G connectivity.

As part of the wider Operational Plan of Research, ENAC intends to establish a new strategical approach of the Aeronautical Authority towards the technological innovation oriented to external ideas, resources and competences, in particular from universities, research institutes and industry.

In this context, ENAC launched in the last semester of 2019 a contest of ideas with awarding prizes, called #E-TeC ENAC Technology Contest "Ideas between ground and sky: the new frontiers of technological innovation for the development of modern concepts of service", dedicated to the memory of Eng. Giuseppe Daniele Carrabba, former Central Director Aviation Regulation, promoter of the aeronautic culture and technological innovation, who died prematurely in November 2018.

The initiative intends to stimulate the growth of innovative realities of young talents in order to support them in the demanding early stages of development of design solutions of concrete interest and in their careers through tools useful to develop a business based on an open innovation approach. The Contest is divided into two phases. At the end of 2019 the first one finished with the selection and prizegiving of five design ideas submitted by groups of students/graduated from a Master Degree Course in disciplines related to Science, Technology, Engineering and Math, integrated by one or more scientific advisors of the involved universities.

In the second phase, five finalist groups will compete through the submission of a feasibility study and, upon successful completion, the foundation of a start-up, under the art. 25 c.2 of L.D. 179/2012 and subsequent amendments and additions.

ENAC, within the institutional mandate, promotes the development of the aeronautical culture by way of agreements with academic institutions regarding topics related to the civil aviation sector.

### MASTER'S PROGRAMME IN COLLABORATION WITH ENAC

#### Civil Aviation Management - 2<sup>nd</sup> cycle

In 2019, ENAC confirmed the collaboration agreement with the University of Rome Sapienza for the 2019-2020 edition of the master's Programme, which provides training on Italian and European Civil Aviation, with reference to studies in the field of civil aviation, intended as aerospace branch. The goal is to perform functions which are potentially usable within the different companies and organisations that operate in the field such as ENAC itself, airlines, maintenance operators, airports, ENAV, ANSV.

#### Planning, design, building and management of airport infrastructures - 2<sup>nd</sup> cycle

In 2019, ENAC confirmed the agreement with Padua University for the master's Programme "Planning, design, building and management of airport infrastructures".

The programme's purpose is to train experts that can cover highly qualified roles in enterprises, engineering companies working in the field, through a multidisciplinary approach.

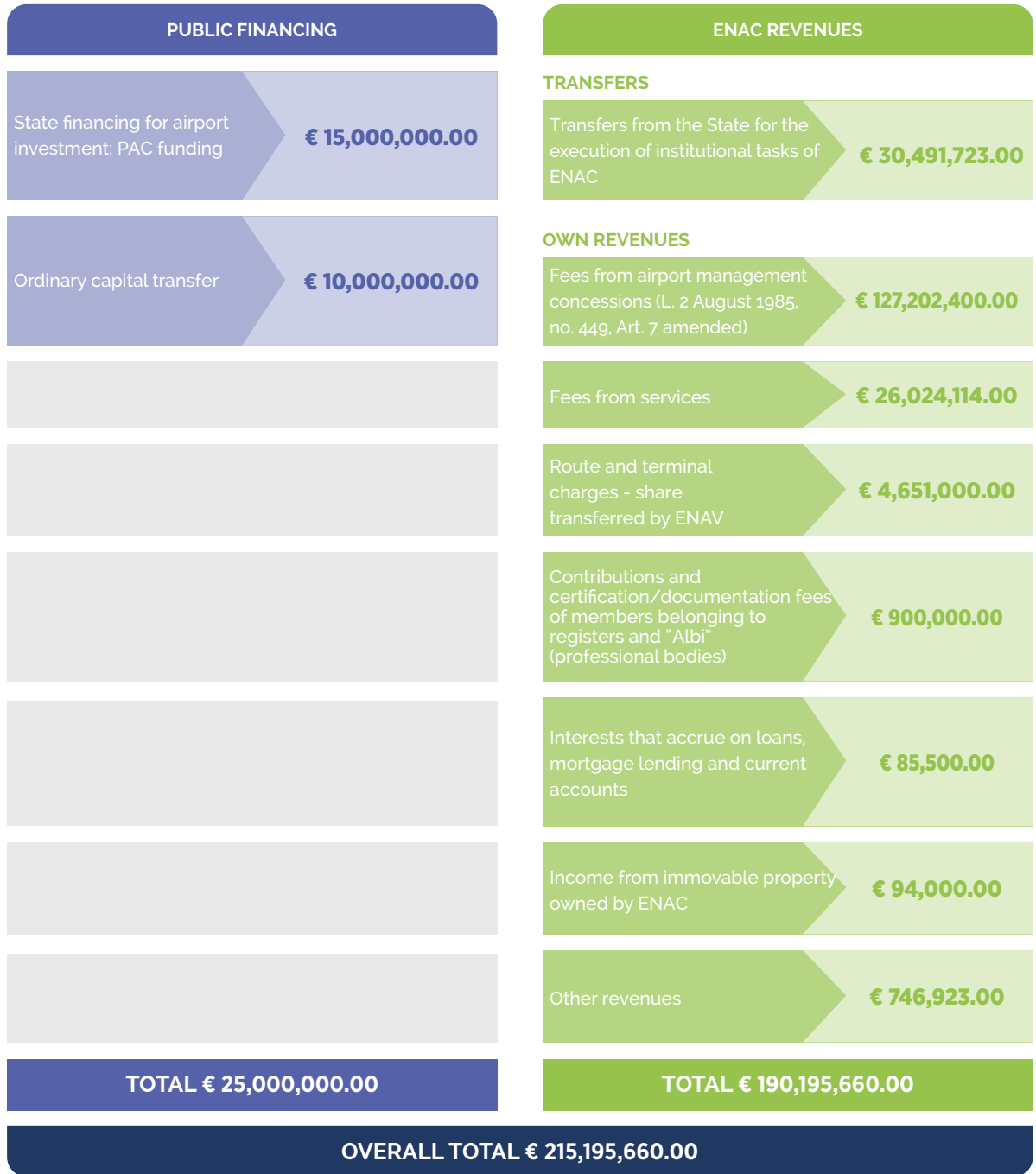
#### Design, Application, Regulation of UAV (Unmanned Aerial Vehicles) - 1<sup>st</sup> cycle

In 2019, ENAC continued the collaboration with Rome Tor Vergata University to activate a master's programme with the participation of sectorial companies and schools. The course is based on the expected increasing use of the Unmanned Aerial Vehicles, known as drones, in several application and research areas. The Master's Program purpose is to build a new class of professional able to design system of knowledge based on the Remotely Piloted Aircraft System, with a special focus on the operational aspects.

# FINANCIAL RESOURCES

The sources of funding of ENAC are mainly of two typologies: public financing and internal resources. These are used to

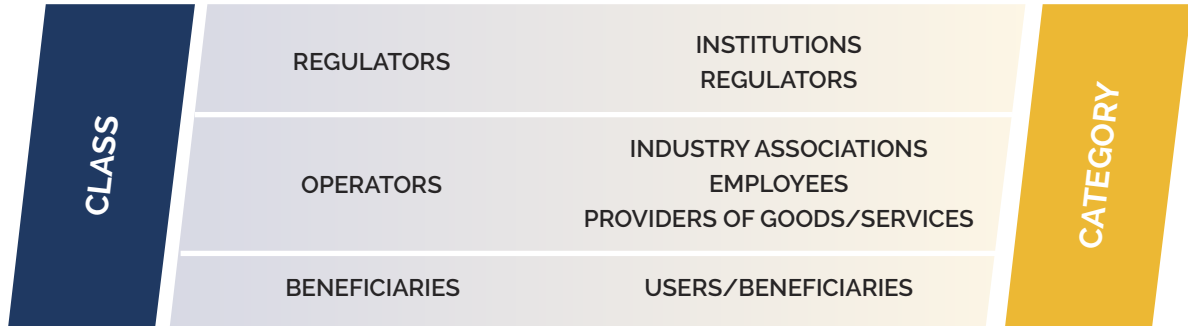
run its administration and, part of them, to implement the activities involved with ENAC institutional duties.



# STAKEHOLDERS

The stakeholders are all the subjects involved with the activities, services and results achieved by ENAC. The stakeholder portfolio is divided into 6 categories, grouped

in 3 homogeneous classes according to the type of interaction with ENAC.



ENAC identifies its key stakeholders (the most important ones, with a greater influence and interest in specific

activities) through the interest/influence matrix of the Copenhagen Charter.

<b>CLASS</b>	<b>CATEGORY</b>	<b>KEY STAKEHOLDERS</b>
<b>REGULATORS</b>	<b>INSTITUTIONS</b>	Italian Aero Club, Italian Air Force, Italian agency for state property management, Agency of Customs, Italian Safety Investigation Agency (ANSV), Judicial Authority, Regions and Local Authorities, Financial Police, Ministry of Foreign Affairs, Ministry of Environment, Defence Ministry, ANAC, Ministry of Infrastructure and Transport, Ministry of Economy and Finance, Interior Ministry, Health Ministry, National Police, Civil protection, Fire Fighters Body
	<b>REGULATORS</b>	ICAO, European Commission, EASA, ECAC, Eurocontrol, Civil Aviation Authorities of foreigner Countries
<b>OPERATORS</b>	<b>INDUSTRY ASSOCIATIONS</b>	Assaeroporti, Assaereo, Assoclearance, Assohandling, IBAR, Environmental Associations, Consumers' Associations, Professional associations
	<b>EMPLOYEES</b>	ENAC Employees, State Entities Employees, Employees of Air Navigation Services, Air carriers Employees, Airport Employees
	<b>SUPPLIERS OF GOODS / SERVICES</b>	ENAV, Airport Managing Body, Security Company, Air operator, Handling Services Provider, Training School Manufacturers, Maintainers, Drones Operators
<b>BENEFICIARIES</b>	<b>USERS/ BENEFICIARIES</b>	Regulated Agent, Private individuals, Passenger, Population in the airport surroundings, Sector Unions, Mass media

# PERFORMANCE PLAN

ENAC Performance Plan is the strategic planning and social reporting tool published in compliance with the provisions set forth by Legislative Decree no. 150/2009 and, through a greater transparency and visibility of policies and strategic actions, it helps stakeholders to better understand ENAC's role in governing the Italian civil aviation sector.

The Performance Plan is part of the so-called "Integrated Performance Cycle", which combines performance, standards of service, quality standards, transparency and integrity and a plan to prevent and contrast corruption.

Potential areas of action are defined via an analysis of the internal and external context and stakeholders needs: it

allows a better definition of the current operational framework and the future scenarios of the civil aviation sector.

ENAC's priorities are set considering its strategic areas (Safety, Security, Fair competitiveness and Quality of services, Environmental protection, cross-cutting area). The aim is to promote the safety and the quality of services in the aviation sector, encourage and manage the interaction with all civil aviation system stakeholders and promote the development of airport infrastructures, respecting the principles of legality, transparency and integrity which have always inspired the activity of ENAC.

### Mission and Strategic Areas

**"ENAC promotes the development of the Civil Aviation by guaranteeing the Country, in particular consumers and industry, the safety of the flights, the protection of the rights, the quality of services and fair competition with respect for the environment."**

<b>SAFETY</b>	Activities and actions aimed at developing the safety related to the people involved in aeronautic operations.
<b>SECURITY</b>	Activities and actions aimed at developing the security in terms of prevention and neutralisation of unlawful acts.
<b>FAIR COMPETITIVENESS &amp; SERVICES QUALITY</b>	Activities and actions aimed at realising condition that allow a great competitiveness of the operators in order to improve the economic efficiency of the national civil aviation / Activities and actions aimed at increasing the quality level of the air transport and airport services as well as at protecting the passenger rights.
<b>ENVIRONMENTAL PROTECTION</b>	Activities and actions aimed at making the air transport development compatible with the environmental protection.
<b>CROSS-CUTTING AREA</b>	Activities and actions aimed at the organisation, management and valorisation of the human, financial and instrumental resources, as well as the staff skills and the cross-cutting activities and actions with the four strategic areas.

The organisational performance is the totality of the administration expected results in its entirety or in its singularity. It allows to plan, measure and evaluate how the organization, aware of its state of health, rationally employs the resources (efficiency) in order to deliver services which

are adequate to the customers' expectations (efficacy), with the ultimate aim of creating public value and improving the social and economic prosperity of users and stakeholders (impact).

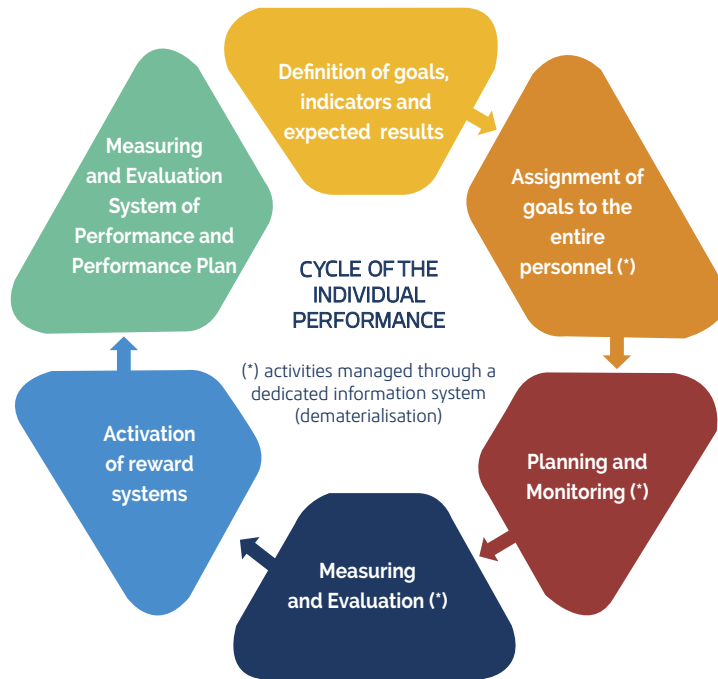
SPECIFIC OBJECTIVES 2019-2021	STRATEGIC AREA	KPI	STAKEHOLDERS
Accordance of the State Safety Programme and the Safety Plan with the provisions of the Reg. EU no. 1139/2018	SAFETY	Implementation of organisational measures aimed at optimising the resources use ensuring the current level of surveillance	Aeronautical organisations
		% of completion of the actions planned in the ENAC Safety Plan	European Commission EASA ICAO
		Ranking CMA EASA Continuous monitoring approach	European Commission EASA ICAO
Definition of a regulatory framework for the commercial suborbital operations	SAFETY	Regulatory provisions and spaceport	Airport managing bodies Air Operators Italian Space Agency Local Communities
Reinforcement the effectiveness of security controls of the infrastructures, of the airports and air navigation services, in line with the EU standards and programmes.	SECURITY	Inspection activity efficiency	Airport managing bodies Air carriers
Definition of a system to catalogue and monitor the players and the quality services of the air transport sector in synergy with the airports open to commercial traffic	FAIR COMPETITIVENESS AND QUALITY OF SERVICES	Implementation state of the cargo PNA	Airport managing bodies Cargo operators
		% of monitored investments on strategic airports	Airport managing bodies
		Performance monitoring and operational capability of national operators and those based in Italy, for commercial passenger flights	Air carriers Airport managing bodies Passengers
		Framework to regulate the intervention on handling services in the context of the plurality of the current operators	Handlers Airport managing bodies
Reinforcement of the measures of passenger rights protection	FAIR COMPETITIVENESS AND QUALITY OF SERVICES	Verification and improvement of the passenger's complaints management by the airline companies	Passengers Air carriers
		Identification of the minimal services that must be included in the travel document	Passengers Air carriers European Commission
Facilitate and promote the research in the air transport and aeronautic fields	SAFETY, SECURITY, FAIR COMPETITIVENESS AND QUALITY OF SERVICES, ENVIRONMENTAL PROTECTION, CROSS-CUTTING AREA	State of implementation of the Research Plan 2018-2022	Research Institutes Universities
Improvement of the efficiency and efficacy of the processes and services of ENAC, as well as the quality of the corruption prevention measures	CROSS-CUTTING AREA	FTE (Full Time Equivalent) of the services accessible via web	ENAC Users
		Number of thematic areas identified by ENAC to be managed following risk management criteria	ENAC Employees
Professional valorisation of the internal resources and improvement of the productivity	CROSS-CUTTING AREA	Traceability of the requests	ENAC Employees



## Sheet 1.5 Performance plan

On the other hand, the individual performance evaluates the contribution provided by the individual for the achievement of the administration goals. According to the individual role, the contribution would be evaluated

considering the organisational performance results of the department of belonging, proportionally to the role and to the responsibilities.



In 2019, ENAC published the 2018 Performance Report that is a tool aimed at illustrating the organisational and individual results achieved in the previous year, compared with the single scheduled targets and resources achieved over the previous year, to citizens as well as internal and external stakeholders. The Performance Report of 2018 showed a substantial achievement of the scheduled targets, both in terms of organisational and individual performance.

## Performance tree

The performance tree is a conceptual diagram that shows the connections between mission, strategic areas, specific objectives and annual planning in order to define the individual objectives. It provides an articulated, complete, concise and integrated depiction of the administration performance.



## PREVENTION OF CORRUPTION AND TRANSPARENCY

The existing provisions for the prevention and repression of corruption and lawlessness in the public administration establishes the strategies of corruption prevention at two levels: the national level, through the adoption of the National Anti-Corruption Plan, edited by National Anti-Corruption Authority, and a decentralized system level under which each public administration defines and adopts a Three-Year Corruption Prevention Plan of its own. The 2016 National Anti-Corruption Plan merged the Three-Year Corruption Prevention Plan and the Three-Year Program on Transparency and Integrity.

ENAC Three-Year Corruption Prevention and transparency Plan is a three-Year plan that defines ENAC anti-corruption strategy, drawn up in accordance with the provisions set forth in the ENAC Performance Plan.

Considering the corruption and risk concepts, through the analysis of the general context and the results of the previous year monitoring plan, ENAC processes (institutional, support, management and control) are evaluated and assigned a risk rating based on output relevance for the user and the discretionary nature of

activities.

The processes that are identified as high-risk are then further divided according to the area and subarea of risk. The actual probability of the occurrence of corruption is assessed along with the economic, organizational and reputational risk (the so-called "concrete" risk). The event that could possibly lead to corruption is identified along with the common measures (mandatory and transversal) that are deemed suitable to contain the risk of its occurrence.

The objectives of transparency and prevention of corruption are tightly connected to the performance of the organization and individuals. These objectives are entrusted to Directors, professional staff or holder of non-management positions and they are measured and evaluated to assess the performance of the organization and individuals.

The Plan is updated annually and considers the results of the monitoring activity carried out by the Manager in charge of Prevention of Corruption and Transparency.

### TRANSPARENCY - SPECIFIC ACTIONS CARRIED OUT IN 2019

- Implementation of the section "Transparent Administration" webpage through the Transparent Administration Portal that provides a smooth, simple management of information and data required to fulfil the obligations of advertising, transparency and dissemination of information set forth by existing regulatory provisions.
- Implementation of bidirectional communication and information channels with citizens in ENAC website.
- Use of the ENAC social media channels: "EnacChannel" on YouTube, Twitter, Instagram and LinkedIn for a better and more effective divulgation of themes concerning transparency.
- Employees training on issues related to the prevention of corruption, legality, ethics and transparency.
- Organisation of the "Days of Transparency".

### SERVICE CHARTER

The Service Charter is an information tool aimed at providing users with information on a variety of provided services and on standards of quality that ENAC complies with.

As regard the activities of technical regulation, certification, authorisation, oversight and control provided by ENAC in the field of civil aviation in Italy, the services considered in the Charter are identified among the one with the highest impact on users. Through the publishing of the monitoring results, ENAC keeps promoting, with the goal of a greater transparency, the information on the compliance with the planned quality standards in comparison with the values recorded during the year of reference. The total amount of monitored services for which the planned values have been defined is currently 43 and they include the main areas of action of ENAC such as aircraft and aviation companies certification, pilot licences, issuance of the authorisation for remotely piloted aircraft system (RPAS) operators, management of passenger complaints as a consequence of airports or air carriers disruptions. For each one of these, some indicators related to quality dimensions and subdimension have been identified. The monitoring activity allows to keep the processes under control by observing the values detected for the production of every service/product output in the considered period, to compare it with the defined standard and to implement potential specific verification activities in order to analyse the variation of the factors that characterise the processes not in compliance with the quality standards and put in place potential corrective and preventive actions.

# TECHNOLOGICAL INNOVATION

## Services and innovation

The commitment of ENAC to rationalise the services and technological infrastructures for citizens and companies that operate in the field, in order to comply with the institutional stakeholders needs in a more efficient way, has continued over the 2019.

On the occasion of the initiative Contest #E-TeC ENAC Technology Contest "Ideas between ground and sky: the new frontiers of technological innovation for the development of

modern concepts of service" promoted by ENAC and dedicated to the memory of Eng. Giuseppe Daniele Carrabba, an innovative platform has been implemented. It allows the working groups leaders to submit the online application and the projects technical documentation for the following evaluation conducted by a Commission purposely constituted. The service is provided by the website [serviziweb.enac.gov.it](http://serviziweb.enac.gov.it) and it requires that the login is done through SPID (Public System of Digital Identity).



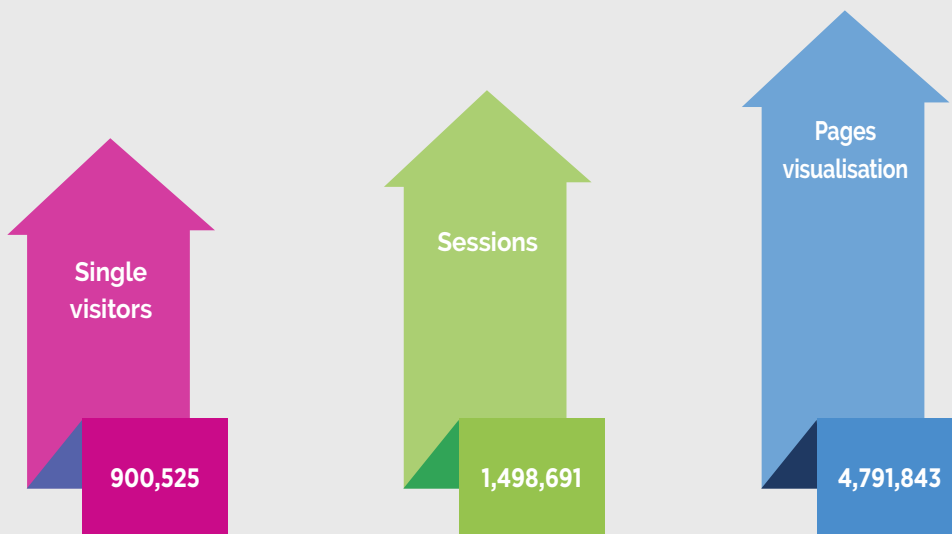
This initiative takes the guidelines of Public Administration included in the three-year plan ICT 2019-2021 by AgID - Agency for Italy Digitalisation since the SPID technology is one of the qualifying platforms for the so-called digital transformation and to facilitate the implementation of a homogeneous model of interaction for the services provided by the Public Administration for citizens and companies.

## Institutional website - [www.enac.gov.it](http://www.enac.gov.it)

The institutional website keeps increasing its appreciation and it is proved by the anonymous data collection executed through web analytics tools.

The elaboration of the statistics shows that in 2019 the institutional website reached 1,498,691 sessions, 900,500 single visitors, for an average of 3.2 explored pages per session.

Institutional website [www.enac.gov.it](http://www.enac.gov.it) - Year 2019



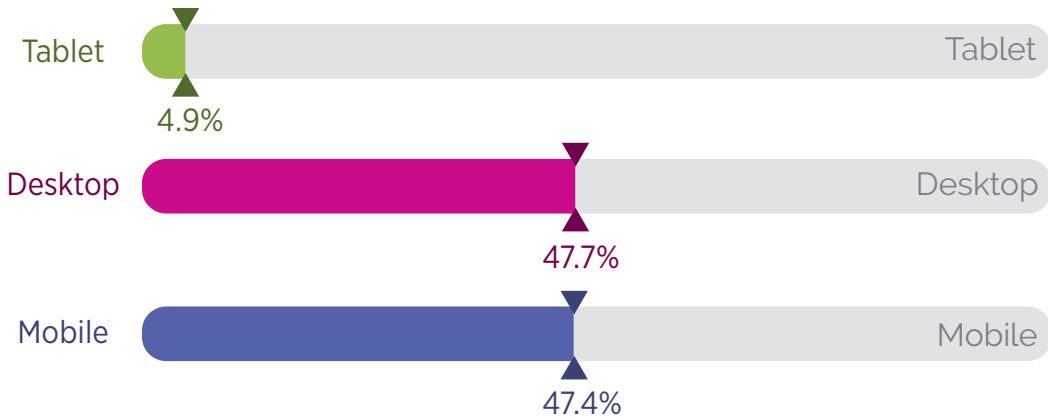
Additionally, it appears that the institutional website garnered interest from European Countries as well as USA,

China, Russia, Canada, United Arab Emirates, even if with lower volumes compared to the Italian traffic.

#### Country of origin of the website visitors www.enac.gov.it - Year 2019

COUNTRY	VISITORS	SESSIONS
Italy	796,693	1,350,634
USA	17,113	19,475
United Kingdom	11,837	17,703
Germany	8,568	11,572
France	7,352	9,718
Spain	7,016	9,329
Swiss	6,689	8,901
The Netherlands	3,923	4,915
Denmark	3,170	3,367
Belgium	2,393	3,302
Austria	1,805	2,414
Russia	1,683	2,212
Poland	1,505	2,089
Ireland	1,450	2,094
Albania	1,433	1,951
Greece	1,345	1,684
Japan	1,335	1,541
United Arab Emirates	1,333	2,351
Romania	1,319	1,801
Finland	1,280	1,429
Colombia	1,276	1,302
China	1,206	1,410
Canada	1,080	1,504
Portugal	1,066	1,473

Users per device typology  
 Institutional website www.enac.gov.it



**Investments**

In 2019, the investments of ENAC in the ICT field has been relevant and equal to € 6,029,105.00, with a roughly 10% increase compared to the previous year. A relevant part of them has been reserved for the innovation of system and technological infrastructures.



A significant part of the IT systems has been dedicated to the development of online services for users and to the implementation of the smart working system for the employees with the aim of:

- significantly reducing the effort needed for the management of the services provided for citizens and

companies through the use of IT;

- improving the quality and the efficacy of the services provided for citizens and companies;
- extending the number of ENAC employees that do smart working, by providing them with workstations that allow the remote access to their personal account and the execution of the activity regardless of the location and the used device.

**Efficiency**

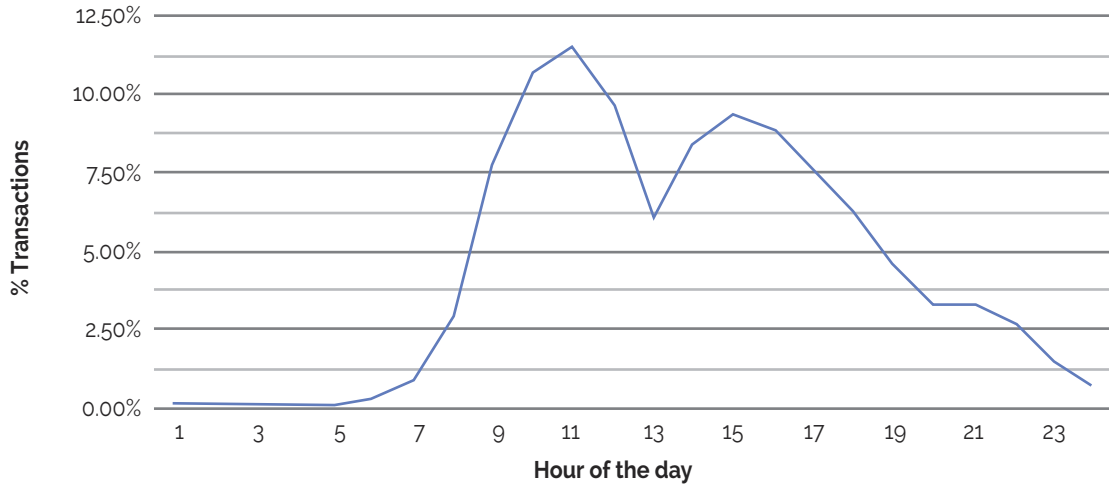
The progressive computerization of processes, exposed through web platforms, made it possible to achieve significant results compared to the planned goals. The online service of payment and invoicing registered 16,548 transactions in 2019; considering that this process makes it possible to pay and issue the invoice completely automatically, we can estimate an average saving of 1,182 FTE (Full Time Equivalent) of elaboration by the administrative operators. Additional processes with the indication of the related saving in terms of FTE generated in 2019, when fully operational, are summarised in the following table.

Online processes - Year 2019	Procedures completed	FTE saving
Online payment transaction produced	16,548	1,182
Examiners reporting on air crew	11,775	841
Communications of drones' pilots training centres	7,197	514
RPAS Declarations	4,413	315
Conversion of Glider Licences	945	68

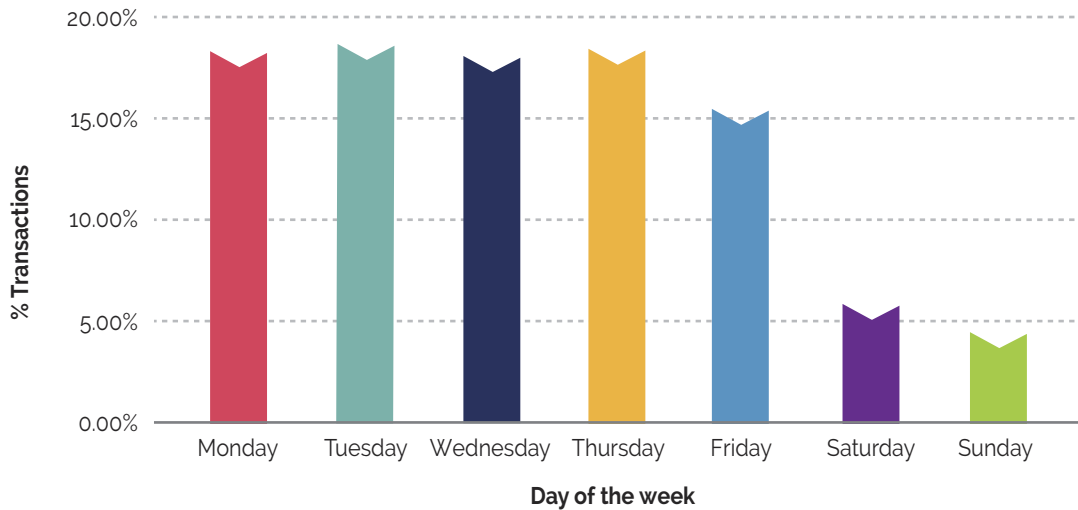
Through online services, ENAC offers the users the possibility to make use of the automated services with modalities that are innovative, quick, digital and outside the

usual office time. The following graph shows, for each hour of the day, the average percentage of recorded transactions compared to the total.

% of transactions vs hours of the day (year 2019)



% of transactions vs day of the week (year 2019)



The analysis of the data recorded in 2019 shows that the online systems allows the management of the roughly 32% of the operations outside the usual office time.

Also, the analysis of the transactions distribution compared to the days of the week shows that the 11.7% of them are executed during the weekend. On the basis of the positive

results achieved, new investments aimed at developing and evolving ENAC online services are planned also for 2020 and 2021, in particular using innovative technologies such as the SPID for the access to the systems and to submit the requests as well as the digital stamp to mark the issued certifications and documents.

## Sheet 1.7 Technological innovation

### Innovation

The evolution of the technology in the ITC field is clearly an enabling factor to make the renewal of ENAC processes possible. So, in 2019 several platforms of the ICT Infrastructure have been renovated; among them there are those to enable the smart working system and to update the network infrastructure and the servers of the ENAC structures on the national territory.

For many years now, ENAC has had its own computer system for smart working. Our data shows how the tendency to adopt a new approach to agile working increases the responsiveness to new challenges of the Public Administration connected, above all, to new services for the citizens. Therefore, the new systems for the smart working management have been reinforced with modern equipment that allow, through new tools, to improve the security of smart working workstations, their management and to multiply the number of smart workers without overloading the Data

Processing Centre infrastructure.

Additionally, the enhancement of the connection network and domain servers made possible for ENAC to have a simplified administration of the workstations in the territorial structures.

The simplified administration of the Active Directory domain services allows a more accurate management of the services provided to ENAC employees, improving the security level and resilience through automatized distribution and restoration of the previous server state.

It is important to highlight how, in the current emergency situation caused by the Covid-19 diffusion, the enhancement of the IT systems dedicated to smart working management allowed ENAC to ensure the continuation of the activities without any interruption, protecting, at the same time, the health of the employees. In fact, in the emergency phase, ENAC provided 95% of the employees with the possibility to work remotely.

## LEGAL ACTIVITY

The legal activity includes consultation, legal opinions, judicial and extrajudicial contentious in the fields under the ENAC competence and in those shared by Public Administration.

In 2019, with regard to the theme of passengers' rights, ENAC produced a successful defence in several Italian Tribunal and it obtained favourable rulings over 145 ordinances that ENAC issued against one air carrier for failure to assist passengers after the cancellation of several flights due to the ash caused by the eruption of the Icelandic volcano Eyjafjöll.

ENAC has also been involved in drafting set opinions in favour of internal departments and the "Avvocatura Generale dello Stato", called to represent the Italian State before the European Court of Justice for an ever higher number of preliminary rulings submitted by the courts of other Member States, particularly regarding the interpretation of the provisions of Reg. (EC) no. 261/2004 that calls for an enhanced protection of passengers involved in the disruption of air transport.

With regard to the relationships with the managing bodies and handler services providers, the controversy is still ongoing. It has been promoted by some handlers and it is about the suspension of the process of certification or extension of the certification, in accordance with the Legislative Decree 13 January 1999 no. 18, implementation of the directive no. 96/67/EC connected to the handler services free access in the EU airports, and with the ENAC Regulation "Certification of handler services providers", pending the handlers access limitation procedure initiated on the request of the airport managing body for safety and

security needs pursuant to the aforementioned regulations. It is also matter of judgement the regulation of subcontract as modified in the edition 5, amendment 1 of the ENAC Regulation "Certification of handler services providers" as security for the services quality and to avoid distortion of the competition, social dumping phenomena and serious level of criticality of the airport operation safety and for the passengers and staff, by introducing the technical suitability for the non-certified operators as handler providers that want to carry out some handling operations in the limits described in the Regulation itself, based on the certified supplier entrustment.

Regarding the airport management and concessions, the controversy about the definition of the concession fee of the assets of the civil aviation State property, assigned as gratuitous use to ENAC (ex art. 693 Italian Air Navigation Code), already evolved in the last years, in 2019 was focused on the commercial activities implemented by profit associations, also thanks to the technical certifications issued by ENAC, in competition with other economic operators. The Administrative Court recognised the legitimacy of the ENAC provisions such as the notices to entrust state concessions that, in this particular context, equalised the associations to the above-mentioned economic operators.

Still pending the judgements about the fuel royalties, pursuant to art. 11 of the Legislative Decree 30 September 2005, converted into law on 2 December 2005 no. 248, which focuses on the actual connection with the cost, as confirmed by ENAC's investigation.



# COMMUNICATION AND INFORMATION

In alignment with the modernisation of the Public Administration, ENAC, always closer to the citizens, assigns an important role to the communication and information functions.

## Relations with users

The remarkable commitment related to this activity continued over 2019: the customer services, inspired by the principles of listening, care, access, transparency and communication, is constantly ensured by ENAC through resources and tool dedicated to the execution of the specific activities aimed at optimising the relationship between ENAC and the various audiences, also through the management of the requests on the status of acts and provisions under the Law no. 241/1990 and subsequent amendments and additions, as well as the right on the

simple and generalised Civic Access (Legislative Decree no. 33/2013).

## Events

To promote and develop the civil aviation culture, ENAC organizes, mostly in its Headquarters in Rome, institutional events on industry issues aimed at both Italian and international stakeholders.

In comparison with the previous year, during 2019, ENAC organised a considerable higher number of institutional events (+37%), mostly hosted in its Headquarters in Rome and promoted by ENAC itself or external subjects that operate in the field of air transport, with a national/international target and context. ENAC organized some 90 events, including seminars, workshops and conferences for a total number of 142 days.



## Toll-Free Number



The Toll-Free Number 800 898 121, reachable from Italy, is one of the channels through which ENAC responds directly to users' inquiries on air transport. The toll-free number also provides information on passengers' rights in case of poor services provided in Italian flights and airports, on the EU Safety List, and on the procedure involved with security checks. The staff devoted to this service, internal to ENAC and coordinated centrally, is

endowed with the professional skills and knowledge required to address the very complex inquiries pertaining to civil aviation. In 2019, ENAC's toll free number received some 4,000 calls.

## Institutional website - [www.enac.gov.it](http://www.enac.gov.it)

After the launch of the new institutional website that took place in September 2018, during 2019 the web platform has been implemented from the editorial point of view by

creating new sections and with developmental technical interventions. The users' feedbacks have been fundamental in order to operate a contents remodulation based on the users' needs with the goal of facilitate the identification of topics of interested always more.

With over 10,000 contents updated in 2019, the ENAC website is one of the principal service tools for a prompt and direct information to the users.

## Press releases

In 2019 ENAC issued 91 press releases. ENAC press releases provide timely information to the media, and consequently to all the citizens, operators and stakeholders on the more important activities related to its institutional mandate and its management, in compliance with the regulation of reference on the activity of information of public administration.

The press releases provide an immediate response on ENAC major activities, initiatives undertaken, regulation adopted, current legislation, technical information related to incidents and disservices, international activities, service communications to users regarding relevant aspects for public opinion, management of crisis information, system evolution, new publications, events organised by ENAC and where it participates with its management and, more in general, on the consequences that potential changes of the sector may determine for the passengers that use the airplane.

The press releases, in addition to being disseminated to the media, are published in real time on ENAC website, where press releases from 2001 onwards can be consulted.

The processing and dissemination of press releases is a prominent part of ENAC's activity. It includes the management of relations with the press, the garrison of information relevant to ENAC, organizing interviews, conferences, meetings and press events and preparing material for journalists, press review publication and management, web and audio-video on the events related to civil aviation for all the ENAC employees that can consult on the Intranet, participation to all the communication campaigns and events for the care of information and journalistic divulgation aspects.

## Acts of Parliamentary Inspection

In 2019, a total of 50 formal answers and 5 updates were provided to the acts of parliamentary inspection. The

subjects treated involved primarily the air transport and airports sectors with a particular care of environment related topics.

## Patronage

ENAC supports, without any financial aid, cultural, scientific, social, educational and sports initiatives aimed at promoting the aeronautical culture. In 2019, ENAC managed the procedure of granting several patronages that registered a 45% increase compared to last year. In total 32 patronages have been granted.

## Initiatives and institutional communication campaigns

Over 2019, ENAC promoted several initiatives and institutional communication campaigns aimed at attracting the interest of the citizens/users regarding themes of interest in the field of air transport.

In addition to campaigns on passenger rights in the various Italian airports, conducted with other relevant stakeholders, in 2019 ENAC supported:

- **"Autism, travelling through the airport"**, the implementation of the campaign aimed at the familiarisation with the airport environments of autistic people that, after its launch in 2015 in the airport of Bari, has been extended in the main Italian airports, has continued over the year.
- **Safe Rides and Where we are in the world**, offering its collaboration to the Crisis Unit of Foreigner Affairs Ministry.
- **Festival of the music**, promoting musical events in airports by ensuring its cooperation to the Ministry of Culture.
- **#salvALI**, to support the Flights Emergency Fund, by which the Flying Angels Foundation ensure the prompt air transport to seriously ill children that cannot be nursed in their Country and to the doctors who leave for surgical missions in the developing Countries.
- **ICAO75**, in the occasion of the 75<sup>th</sup> Anniversary of the constitution of ICAO, educational initiatives have been set in place to celebrate the event as an important historical moment for the development of the connectivity in air transport at global level.
- **Lauretano Jubilee (8<sup>th</sup> of December 2019 – 10<sup>th</sup> of December 2020)**, carrying out coordination activity in the organisation of the activities of the Lauretano Jubilee,

## Sheet 1.9 Communication and information

granted by the Holy Father Pope Francis, in occasion of the centenary of the proclamation of Madonna of Loreto as Patron of the aeronauts, in relation with the journey of the statue depicting the Madonna of Loreto in 20 national civil airports. ENAC, Assaeroporti and Alitalia, in collaboration with Aero Club d'Italia are among the institutions and the subjects involved in the reception initiatives in occasion of the arrival and departure of the statue of the Pilgrim Madonna.

### Social channels

In order to establish new modalities of interaction and participation, ENAC has implemented its social networks not only to provide information and communications in a more direct and efficient way, but also to reinforce the trust relationship, by listening and monitoring the satisfaction levels of the citizens/users.

In 2019, ENAC decided to create its official accounts in several social platforms, such as:



**Twitter: @EnacGov** used as tool of distribution of information on ENAC activities and the most interesting themes of the sector;



**Instagram: @enacgov** to share images and videos on ENAC activities;



**LinkedIn: ENAC - Ente Nazionale per l'Aviazione Civile** to develop and disseminate information and contents related to ENAC professional activities.



Over the year the implementation of the show schedule of EnacChannel on YouTube has continued. It is active

since 2012 to convey direct and effective information to citizens such as to help them better understand ENAC's activities and the functioning of a sensitive sector such as air transport. In 2019, some 33 videos have been published on a variety of topics: institutional, current affairs, in depth studies, interviews with ENAC top management. The channel has also provided links to 42 relevant radio and television press reviews.

Additionally, in 2019, EnacChannel hosted live streaming of events, meetings, workshops organised by ENAC.

### RAI Isoradio



Through an afternoon broadcast with RAI-Isoradio (FM 103.3), ENAC, assisted by relevant airport managing bodies, provides news and information bulletins on airport operations and traffic forecasts. In 2019, 250 news bulletins were broadcasted.

### Library

ENAC's library includes a total of 10,000 documents related to the Italian and foreign civil aviation sector literature and acts as a reference hub for students and scholars. Its search engine, that can be accessed both on premise and on-line, includes books in its catalogue or in other catalogues of the OPAC network.

## ENAC CRISIS ROOM

ENAC Crisis Room or Crisis Management Team (CMT) reports directly to the Director General and it is entrusted with the task of managing crisis situations in coordination with other competent public bodies, handling the operational aspects in case of serious events involving the air transport. The CMT also supports ENAC structures in providing clear and coherent information to the media, citizens and passengers, supporting also other institutional players involved in emergency management, in full coordination with ENAC's Airport Depts. located throughout the Italian territory.

Main activities of ENAC CMT in 2019 regarded:

- 40 training sessions, 35 of which in airports and 5 complex ones (BOREA 19 - CAMPI FLEGREI 19 - VOLCEX 19 - VOLCITA 19 - FCO.GEN.5A)
- 22 emergencies
- 106 aeronautical events

CELEBRATIONS FOR THE 75 YEARS OF ICAO AND THE CONVENTION ON INTERNATIONAL CIVIL AVIATION



In 2019, the civil aviation celebrated the 75<sup>th</sup> anniversary of the constitution of ICAO (International Civil Aviation Organization) and of the signature of the Convention on International Civil Aviation (Convention of Chicago).

The Convention of Chicago, signed in 1944, is one of the milestones of the modern civil aviation since it includes the fundamental principles of the civil aviation and it establishes the International Civil Aviation Organization (ICAO), specialised ONU agency made up of 193 Member States, in charge of the coordination and regulation of the international air transport by issuing shared ruled and guidelines necessary to standardise the sector to the benefit of the air navigation safety.

To remind this important historic moment, in 2019 the Organisation requested all the Member States and their Civil Aviation Authorities to put in place focused disseminating actions.

In this context, Italy joined the celebrations put in place everywhere in the world through an initiative, born from the collaboration between ENAC and ENAV, that established the installation of three maxi cloths on the control tower of Rome Fiumicino airport, in order to spread the celebratory logo of the 75<sup>th</sup> anniversary of ICAO for the period between September and December 2019.

The panels, located on the sides of the tower shaft which is an ideal visual point of attention, have been visible to millions of passengers, crews and sector workers, from both the runways and the terminal area of the Leonardo da Vinci Airport, the main Italian airport considering the traffic volume.





# SAFETY

Scheda 2.1 **53** Flight safety

Scheda 2.2 **59** Certification activities

Scheda 2.3 **68** Organisations oversight

Scheda 2.4 **83** Personnel certifications

Scheda 2.5 **88** Inspection audits by international bodies



# FLIGHT SAFETY

**S**afety involves a coherent set of activities and actions aimed at protecting flight safety such as to protect the persons and goods involved in any aeronautical activity. This is one of the key features of the Italian civil aviation governance system.

## State Safety Programme (SSP)

To ensure that actions of the Countries are carried out to the highest possible level of civil aviation safety, the ICAO Annex 19 requires contracting Countries to develop a national programme called State Safety Program (SSP). In Italy, the SSP (National Civil Aviation Safety Program) has come to the fourth edition and is governed by a High-Level Coordination Committee chaired by the Director General of ENAC, under delegation of the Minister for Infrastructure and Transport as Executive Accountable. The committee meets regularly and plays an important role in guiding and addressing any safety issues. The Committee is comprised of top executives from the ANSV, Italian Safety Investigation Agency, the Ministry of Infrastructure and Transport, the Italian Air Force, the Italian Air Navigation Service Provider (ENAV) and Aero Club d'Italia.

The State Safety Programme, whose issuance is required to Member States through the Reg. (EU) no. 2018/1139, is the manifesto of the Italian State that describes the set of policies, activities and safety goals in order to reach and maintain an acceptable safety level, to be realised through a continuous improvement of the institutional activities of

regulation, certification and oversight. In accordance with the ICAO Annex 19 indications, the determination of the acceptable Civil Aviation Safety level presupposes that the level has been determined, shared and supported by the State that must use it, as planned by ICAO standards, to check the performances of the whole Civil Aviation System. Establishing the acceptable safety level and a plan to reach it, require the integration of the current complied-based safety management with a performance-based/risk-based approach.

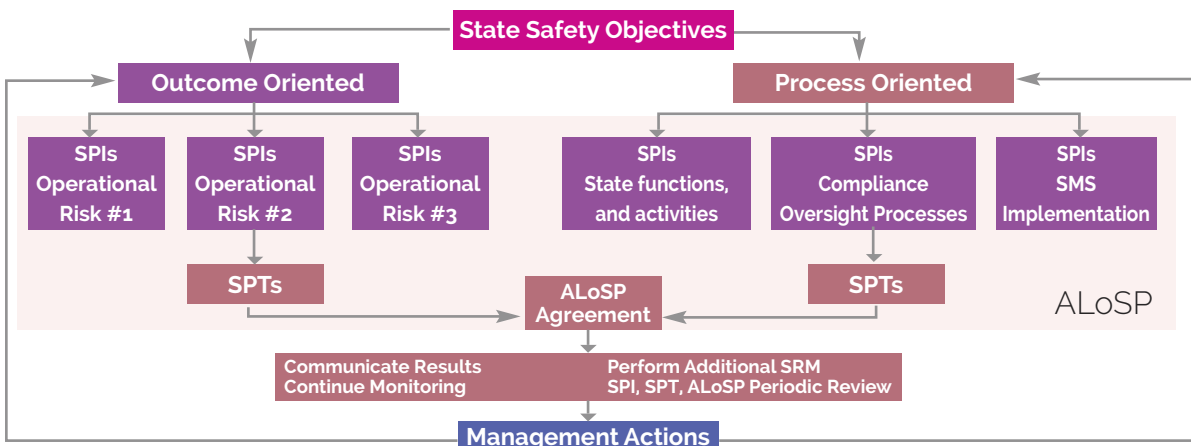
## Safety Performance Indicators (SPI)

The State Safety Programme requires that the Italian State defines the indicators to measure the current safety level in the civil aviation sector, as demanded by the Annex 19 and by the Doc. ICAO no. 9859 (Safety Management Manual). These indicators are called Safety Performance Indicators (SPI) and allow to verify the achievement and maintenance of an acceptable level of safety performance. In June 2019, in order to integrate and complete the SSP development, the so-called Safety Performance Indicators, which are intended to identify an acceptable level of safety performance in Italy, have been published.

The key elements that define the acceptable level of safety performance are the following:

- Safety Performance Indicators (SPI): measure of the Safety performance;
- Safety Performance Targets (SPT): reference value for the SPI;
- Acceptable Level of Safety Performance (ALoSP): acceptable level of safety performance.

ICAO Scheme (rif. Doc. 9859 Ed. 4)



## Scheda 2.1 Flight safety

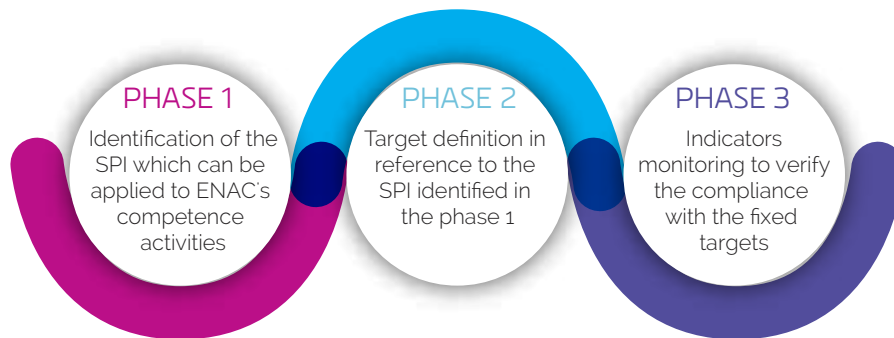
The safety performances needs to be constantly monitored in order to:

- identify the safety critical areas in the national civil aviation system;
- identify the alert conditions which can indicate the presence of critical areas;
- obtain a constant improvement of the safety performances;
- determine whether modifications or additions to the

indicators and/or alerts are needed.

Considering that it is a complex process which requires a gradual development of the several elements that makes it up, ENAC has decided to start with the identification of its own indicators that will be the base for the indicators developed at the national level in the SSP context.

The process developed by ENAC is divided into three phases.



The phase 2 has started in 2019 with the publication, in January 2020, of the first Safety Report that includes the safety data analysis of the four-year period 2015-2018 and that should lead, at a later time, to the identification of the targets (SPT) to be applied to the chosen indicators.

The cycle will end with the monitoring phase which is

aimed at verifying whether the fixed targets have been achieved and whether it is needed to decide corrective actions in order to bring the indicators values back to the fixed targets. These corrective actions will be included in the ENAC Safety Plan.

### SAFETY REPORT

The ENAC Safety Report is the result of the statistical analysis of the safety data available in the eE-MOR (electronic ENAC Mandatory Occurrence Report) system, used by ENAC for collecting the mandatory reports on the aeronautic events (accidents and incidents) happened in the four-year period 2015-2018 with reference to Safety Performance Indicators established within State Safety Programme.

This analysis has the following purposes:

- verify the SPI trends in the four-year period 2015-2018 in order to verify the Safety Performance Target (SPT), if possible;
- verify whether the SPI chosen by ENAC are realistic and significative and, if need be, obtain indications on how to adapt or modify them;
- provide an evaluation tool to verify the efficacy of the actions included in the 2018-2022 Safety Plan.

In addition, in 2020, ENAC intends to integrate in the analysis also the 2019 data in order to have a more complete picture and identify the SPT to measure during the year with a higher precision.

## ENAC Safety Plan

The Safety Plan, implemented by ENAC within the SSP for the aspects of its competence, describes ENAC activities in the topic of safety to orientate the regulatory, certification, oversight and promotion activities, towards the

achievement of coordinated and shared goals. In particular, the Safety Plan includes both the safety actions conferred by the European Plan for Aviation Safety (EPAS) to the EASA State Members and the safety actions identified by ENAC based on its certification, oversight and control

activity. In this respect, it has to be pointed out that at national level, the emerging issues affecting the civil aviation development in Italy, such as Remotely Piloted Aircraft, remotely controlled airport traffic or suborbital flights, have a particular importance.

Through the publication of the Safety Plan, ENAC sets the following objectives:

- implementation of the strategical decisions of the State Safety Programme;
- implementation of the safety actions attributed to the State Members by EASA;
- implementation of the safety actions at national level;
- implementation of the actions to mitigate the identified risks.

The Safety Plan is not a static document, but it evolves based on the EASA indications, through the EPAS periodical update and through the analysis of the data and information collected at national level. At the head of the Safety Plan, there is the ENAC Safety Board, which meets regularly to monitor the progress of the plan and to make any changes or updates.

In 2019, ENAC carried out the state of completion monitoring of the actions included in the 2018-2022 Safety Plan edition and, contextually, it has begun the analysis of what required by EASA in the 2020-2024 EPAS edition, in order to update its Safety Plan also on the basis of the new requirements included in the Reg. (EU) no. 2018/1139 which establishes that the EU Member States are required to issue the so-called Safety Plan for Aviation Safety (SPAS).

## Safety recommendations

The ANSV is the Agency in charge of investigating accidents and serious incidents in the civil aviation sector in Italy. In accordance with the Reg. (EU) no. 996/2010, at the end of the investigations, the Agency may issue safety recommendations on the basis of the findings in order to prevent other similar events or reduce the consequences. These recommendations may also be addressed to the competent aeronautic authorities, such as ENAC, for possible measures aimed at safeguarding and improving the flight safety.

If recognised, these recommendations lead to the definition of corrective measures.

The position taken by ENAC on each recommendation is

published on the ENAC website in the Follow-up Action on Occurrence Report (FACTOR) model. It contains the data that identifies the event with a short description and the measures taken to offset the event along with their implementation status.

In 2019, 6 FACTOR models have been issued to answer as many ANSV recommendations and a detailed review activity of all the ENAC activities has started, in order to provide a prompt response to the safety recommendations that ENAC receives.

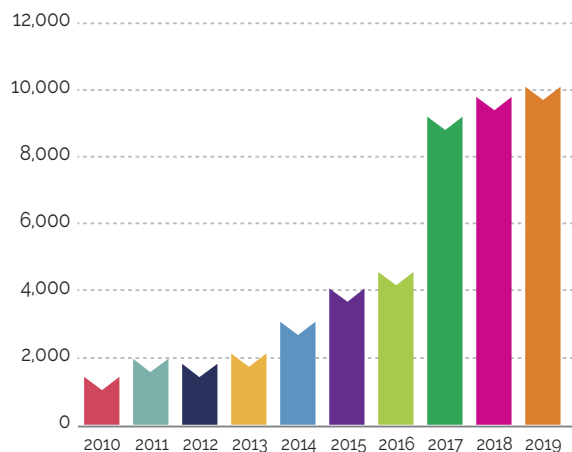
## Reporting and analysis of aeronautical events

The collection of the mandatory reports of aeronautical events (accidents and serious incidents), is carried out by ENAC through the eE-MOR (electronic ENAC - Mandatory Occurrence Reporting) system, which complies with Reg. (EU) no. 376/2014. The eE-MOR system is based on the Eccairs 5 software of the European Commission and it allows the information input directly by operators using a web interface (called Webdas) and they are seamlessly transferred to the national database managed by ENAC.

For the first year in 2019, the eE-MOR system worked at full capacity collecting the reports coming from almost all the obliged subjects and, additionally, it provided the necessary data for the Safety Performance Indicators analysis, allowing the elaboration of the 2015-2018 Safety Report.

It is worth mentioning that the reports have increased of 4% over 2019 if compared to 2018, reaching a total of 10,094.

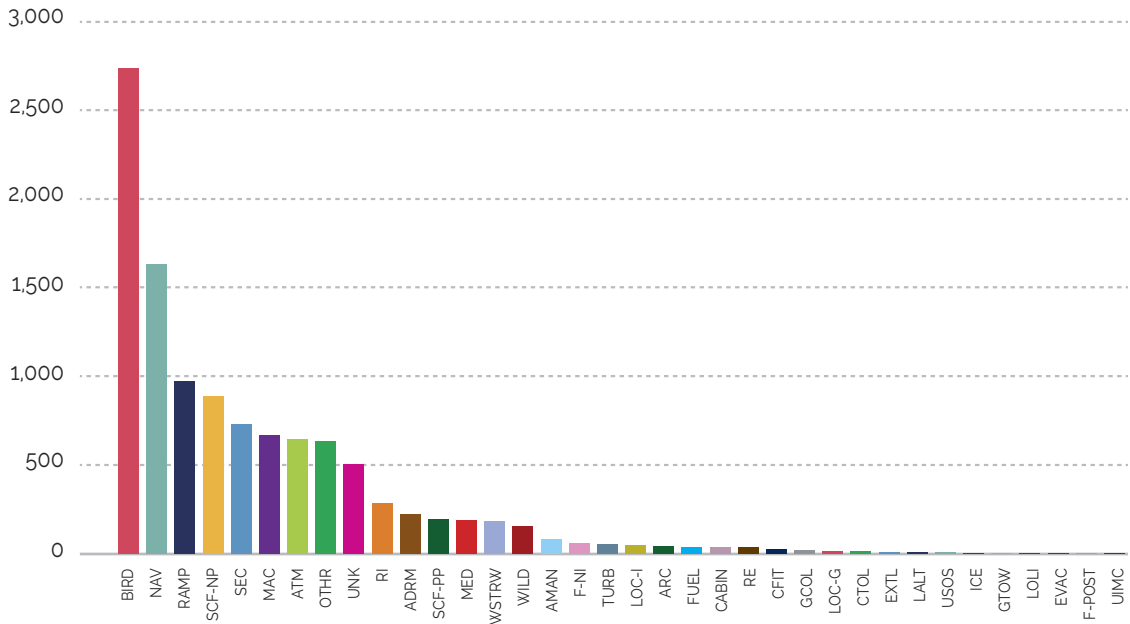
## Trend of the reports





Scheda 2.1 Flight safety

Events 2019 – ADREP categories



<b>BIRD:</b> Birdstrike	2,737
<b>NAV:</b> Navigation errors	1,631
<b>RAMP:</b> Ground handling	975
<b>SCF-NP:</b> System/component failure or malfunction [non-powerplant]	889
<b>SEC:</b> Security related	730
<b>MAC:</b> Mid Air Collision	666
<b>ATM:</b> ATM/CNS	643
<b>OTHR:</b> Other	635
<b>UNK:</b> Unknown or undetermined	505
<b>RI:</b> Runway Incursion	283
<b>ADRM:</b> Aerodrome Runway incursion - vehicle, aircraft or person	220
<b>SCF-PP:</b> Powerplant failure or malfunction	196
<b>MED:</b> Medical	187
<b>WSTRW:</b> Windshear or thunderstorm	184
<b>WILD:</b> Collision Wildlife	157
<b>AMAN:</b> Abrupt maneuver	81
<b>F-NI:</b> Fire/smoke (non-impact)	57
<b>TURB:</b> Turbulence encounter	53
<b>LOC-I:</b> Loss of control - inflight	48
<b>ARC:</b> Abnormal runway contact	45
<b>FUEL:</b> Fuel related	36
<b>CABIN:</b> Cabin safety events	35
<b>RE:</b> Runway Excursion	34
<b>CFIT:</b> Controlled flight into or toward terrain	28
<b>GCOL:</b> Ground Collision	18
<b>LOC-G:</b> Loss of control - ground	14
<b>CTOL:</b> Collision with obstacle(s) during take-off and landing	12
<b>EXTL:</b> External load related occurrences	10
<b>LALT:</b> Low altitude operations	8
<b>USOS:</b> Undershoot/overshoot	6
<b>ICE:</b> Icing	5
<b>GTOW:</b> Glider towing related events	4
<b>LOLI:</b> Loss of lifting conditions en route	1
<b>EVAC:</b> Evacuation	1
<b>F-POST:</b> Fire/smoke (post-impact)	1
<b>UIMC:</b> Unintended flight in IMC	1

## INVESTIGATIONS ON PARACHUTE ACCIDENTS

ENAC, on the basis of its institutional mandate, conducts investigations on parachute accidents and serious incidents in order to prevent similar events, without attributing responsibilities.

The investigation on parachute accidents follows the principles defined in the ICAO Annex 13 and methods of inquiry described in the Doc. 9756 ICAO and Doc. 9962 ICAO.

The aim of the investigation is to discover the dynamic, the causes and the causal factors that determined the accident, in order to add elements to improve the safety of the civil aviation system.

Three investigations have been opened to discover the causes of three accidents happened during 2019.

A report system for the parachute sector designed and realised by ENAC, with the aim to collect reports about parachute serious incidents and accidents, became active. The mentioned system, besides improving the Risk Analysis, is a tool for a culture change, driven by the Just Culture also in the skydive world.

In order to promote the reporting use, spread the Safety culture and the principles of the Just Culture, in November 2019 ENAC organised, with the collaboration of the Italian Parachutists Association and the Parachutists Instructors Association, a workshop that all the representatives of the Italian parachute schools have participated in.

Lastly, ENAC regulated the reporting on parachute accidents and incidents with the Advisory Circular ENAC GEN-07.

## Wildlife strike

**Wildlife strike is the violent impact between an aircraft and one or more birds or other species of wildlife, with consequences for both the aviation safety and the economic costs caused by the event.**

The professionals who deal with wildlife strike (authorities within the airport, biologists, security staff, pilots, engineers and lawyers) are organised in international and national bodies, such as the World Birdstrike Association or the birdstrike/wildlife committees at national level.

The Birdstrike Committee Italy (BSCI) operates since 1987 to ensure the safety of airports and face the wildlife strike problem. It was recognised in 1993 as Technical Commission of the Ministry of Transportation and reorganised in 2001 in the context of ENAC. Currently the BSCI databank stores all the wildlife strike events happened in the Italian airports from 2002. A study of the data has established that 81.70% of reported civil aviation impacts take place onsite or near airports, especially during take-off or landing.

This is due, among other reasons, that the airports are an ideal habitat for many different bird species, including gulls, starlings and various birds of prey: all species that are particularly dangerous for the safety of air navigation.

From 2002, in the 3.1% of the events have been recorded damages to the aircraft, in the 9.3% there has been a multiple strike, in the 3.3% there has been an engine

ingestion and in the 2.7% there have been considerable effects on the flight (delays, aborted take-off, precautional landing and/or flight cancellation).

The worst affected species are swift (32%), kestrel (17%) and seagull (15%). The pigeon weighs for the 6% and the hares for the 5%.

The 2019 data owned by ENAC are still temporary and subjected to changes since they have not been compared yet with the data collected by the airport managing bodies, which are responsible for the wildlife risk control and whose risk management area concerns the strikes below 300 feet.

It is noted that the increase in the number of wildlife strike events started in 2017 it is not due to a real intensification of the phenomenon but to the integration of the data reported by the airport managing bodies with the ones recorded in the eE-MOR database, in order to obtain an information that is always more accurate and realistic.

Taking in consideration the above-mentioned, a general analysis of the aggregated partial data for 2019 shows that in the last 17 years the number of reported impacts is constantly increasing. This testifies the growing attention paid to this phenomenon that brought to light the real number of the wild strike phenomenon in Italy. At the same time, it has been noted a descending trend of the total reports in the last three years: evidently the always higher attention paid to bird attraction sources in the airport surroundings and the always more accurate deterrence strategies aimed at reducing or at least keeping under control the presence of wildlife, are bearing fruit.

After the publication of the Information Note ENAC

## Scheda 2.1 Flight safety

NI/2017/011 that established the 12 objective performance indicators (regulation application, risk assessment, etc.) on the basis of which it is possible to evaluate the opportunity of a monitoring visit on a specific airport in order to optimise

and rationalise ENAC resources, the BSCI has prepared the ranking sheets for 2018 and 2019 and, over 2020, the first monitoring visits will be planned.

YEAR	Total Strikes	Strikes < 300 ft	Strikes > 300 ft	Strikes with damages	Multiple Strikes	Strikes with ingestion	Strikes with effects on the flight
2009	858	628	230	31	102	28	21
2010	942	733	209	25	124	23	24
2011	882	803	79	37	143	17	26
2012	1,048	960	88	46	121	37	30
2013	1,096	982	114	25	179	13	22
2014	1,084	961	123	26	121	8	12
2015	1,299	940	359	51	98	24	39
2016	1,313	998	315	52	91	36	37
2017	2,034	1,730	304	37	132	95	33
2018	1,770	1,484	286	53	102	121	46
2019*	1,814	1,473	341	62	108	96	68

\* Partial data to be verified in comparison with ones from the airport managing body.

### ENAC regulation on safety issued in 2019

- Regulation Air transportation of dangerous goods - Ed. 2 - 2 July 2019.
- Regulation Exercise of the sanctioning power for violation of the Regulation (EU) no. 2018/1139 and Regulation (EU) no. 255/2010 - Ed. 1 - 24 July 2019.
- Regulation Remotely Piloted Aerial Vehicles - Ed. 3 - 11 November 2019.
- Advisory Circular NAV-68D of 31 October 2019 - Part 66 - Conversion of the Certificates of Technical Suitability as Certifying Staff in Licence of Limited Aircraft Maintenance.
- Advisory Circular OPV-19A of 2 October 2019 - Air shows.
- Advisory Circular ATM-09 of 24 May 2019 - Remotely Piloted Aircraft (RPA) - Criteria for the use of airspace.
- Advisory Circular GEN-07 of 16 December 2019 - Reporting of parachute accidents/incidents.

## CERTIFICATION ACTIVITIES

### Certification of products

The certification activities of ENAC are aimed at establishing the compliance of aircraft, components, infrastructures and systems with the EU and EASA safety requirements. To date, EASA is responsible for the certification of aircraft, engines, propellers and components. The certification of the aircraft categories listed in Annex 2 to the Reg. (EC) no. 216/2008 (Basic Regulation) and its subsequent revisions (Reg. EC no. 1139/18) as well as the airport infrastructures are a national prerogative.

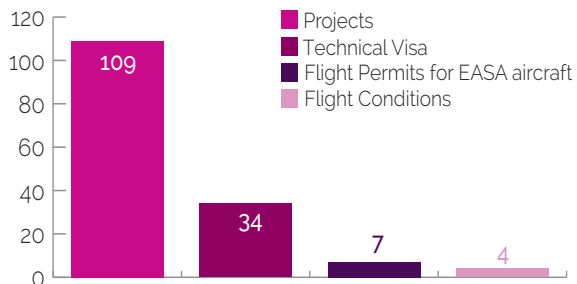
In 2019 ENAC carried out activities of its own competence and upon EASA delegation based on a Cooperation agreement between ENAC and the Agency in order to enhance the support of the National Authorities with recognised professional and technical skills to EASA in performing the assigned safety tasks.

### Activity under EASA remit

In 2019, ENAC has carried out certification and oversight activities on behalf of EASA in relation to 109 projects of different typologies.

In particular:

- 34 Technical Visa for the issuance of Modifications Approval Certificates;
- 4 Flight Conditions approval proposals for flight operations;
- 7 Flight Permits for EASA Aircraft.



In addition, ENAC has ensured the oversight of the continuing airworthiness management of products made in Italy for the following manufacturers:

- Leonardo SpA Elicotteri;
- General Avia;
- Leonardo SpA Velivoli;
- Piaggio Aero Industries;
- Tecnam, Vulcanair;
- Magnaghi, OmaSud;
- GT Propellers, DieseJet.

ENAC, on EASA behalf, has ensured the oversight of the continuing airworthiness management for the following aircraft:

- Piper PA-60/PA-31;
- PA-42, PA30, PA-39 & PA-40
- Commander 100, 112, 114 series, 200D, 500, 680, 690 & 700 series;
- Bellanca Champion 7, 8, 17-31 ATC, 14-13-3;
- Bell 204/205/210/214 e Erickson S-64F;
- seaplane Lake 250 & LA-42 series;
- Glider Calif A-21.

Within the partnership, ENAC, on EASA behalf, has ensured the oversight of the design organisation of products made in Italy such as:

- Leonardo Divisione Velivoli;
- Alitalia, Avionica;
- DieseJet;
- Jet Avionics;
- LEAT;
- Mecaer Northern Avionics;
- OMA SUD;
- Piaggio Aero Industries;
- Piaggio Aviation;
- Vulcanair.

Additionally, ENAC assigned professional resources for specific projects to EASA for the issuance of DOA (Design Organisation Approval) to some new Italian design companies: Giannuzzi, Superjet e Interiors CS. The activity carried out by the ENAC technical departments, deriving from the contractual provisions with the Agency, are of primary importance in the

## Scheda 2.2 Certification activities

ENAC's policy of supporting the safety growth and development of the national industry. In fact, the technical capacity retention of ENAC is a fundamental element to keep making its contribution in term of resources for certifying and overseeing the national companies, in order to allow the national system to take advantage of the presence in international contexts of a National Authority which is competent, innovative and guarantor for a fair development.

The activity carried out by ENAC, based on the partnership agreement that covers the certification and oversight on organisations of non-European Countries on EASA behalf, has increased over 2019, doubling the number of the organisations overseen by ENAC if compared to 2018.

The involved organisation carry out activity of:

- maintenance (Part 145);
- production (Part 21 Subpart G);
- technical training for Certifying Staff (Part 147).

In particular the oversight activity for the continued validity of the approvals has been carried out on the following foreigner maintenance organisations:

- Asia Technical Aviation Services Ltd.
- ST Aerospace Technologies Co. Ltd.
- Tulpar Interiors Group LLC
- Tulpar Technologies LLC
- Beijing Cronda Aviation Technology Co. Ltd.
- China Air Lines
- Challenge Airport Ltd.
- PJSC UEC-Saturn
- WUHU SHUANGYI AERO-TECH Co. Ltd.

In 2019, activities have been executed in order to:

- issue the following new approvals regarding maintenance organisations in accordance with Part

145 and training organisations for Certifying Staff in accordance with Part 147:

- Celestica Malaysia SDN. BHD
- RUAG Aviation Malaysia SDN
- BHD
- Esterline Service China LTD
- GKN Engine Systems Component Repair SDN. BHD
- TATA SIA Airlines Limited - TSAL
- College of Aviation Technology
- certify and oversight the following manufacturing organisations:
  - Havelsan Hava Elektronik Sanayi
  - Aspilsan Askeri Pil Sanayi A.S.
  - Tusas Aerospace Industries
  - Selex Communication.

ENAC, through certification programs directly managed by EASA over 2019, has:

- provided professionals to the Agency in particular for the Leonardo AW 169 and AW189 helicopters, Sukhoi Civil Aircraft Superjet 100, helicopter Bell 429, Piaggio P180 Avanti II;
- ensured the oversight of the continuing airworthiness management for the aircraft Sukhoi Civil Aircraft Superjet 100, P180 Avanti II;
- participated in the activities of the MRB Process (Maintenance Review Board) for the aircraft ATR 42/72;
- provided assistance for the validation of Italian products by Third Countries;
- validated 36 EASA qualifications of devices for ground training of Air Crew (flight simulators).

In 2019, the value of the Service Contract with EASA for the managed activities amounts to some € 700,000.

## MOST SIGNIFICANT CERTIFICATION ACTIVITIES IN 2019

### Aircraft:

ENAC has been involved in the approval processes of major modification and continuing airworthiness management of the following aircraft made in Italy: helicopters Leonardo A109 and AW139, Tecnam aircraft models P2006T, P2002 and P92, Vulcanair aircraft P68 and V1 and Piaggio P180.

In particular among the most relevant activities regarding the helicopter AW139, which in 2019 achieved the prestigious milestone of 1,000 units produced, the following deserve a mention: increase of the operational altitude to 11,000ft at the maximum weight of 6,800 kg, approval of the configuration for PBN operations and, above all, the task related to the EASA certification of the new model of AW139 assigned to a team of ENAC. The new version, temporarily called AW139 MKII, will be equipped with a set of modifications in order to improve the flight performances and significantly decrease the fuel consumption.

On completion of an in-depth technical investigation, in 2019, it has been authorised to carry out a set of experimental flight test in Italy for the aircraft Tiltrotor AW609, designed and manufactured by the subsidiary of Leonardo in the USA AgustaWestland Philadelphia Corporation (AWPC).

The flight activity for which the FAA had issued a Special Airworthiness Certificate has been aimed at monitoring and registering the loads on the main structural components of the Tiltrotor.

Moreover, ENAC carried out certification activity through its specialists in the EASA teams on the helicopters AW 609, AW139, AW189, AW169 and EH 101.

With regard to the aircraft manufactured abroad, ENAC has been involved in the approval process of major modifications to the type certificate and major fixings on the aircraft Sukhoi Superjet 100, Boeing MD 80, ATR Avions De Transport Region ATR 42/72.

With regard to the Continuing Airworthiness, ENAC prepared, on EASA behalf, several Airworthiness Directives for the helicopters AW139 and A109 in order to require the necessary corrective actions to restore the safety conditions of the operations potentially compromised after serious incidents occurred in service.

Ultimately, ENAC provided support and consultation for the preparation of the updates required by the Ministry of Infrastructure and Transport on the activities connected to the modification of the MCAS of the aircraft B-737 MAX, necessary after the tragic accidents occurred. This support included the meetings with both the EASA specialists that are following the modifications approval process and the representatives of Boeing.

### Permits to fly Annex I Basic Regulation 1139/2018

Over 2019, it has been completed the activity aimed at issuing a permit to fly for research and development regarding a new single-engine aircraft entirely manufactured with composite by CFM Air from Turin and weighting 700kg.

The activity started 2 years ago, involved ENAC Specialists for the branches Flight, Structures, Engines and Electro-Avionics and ended with a full certification of the aircraft in accordance with the regulation CS-VLA. The compliance with the requirements has been verified by the ENAC specialists also by requiring specific tests.

The experience gained with this permit to fly will be used by CFM for this aircraft certification request to be submitted to EASA and for which the company has already requested ENAC support and assistance.

### Assistance activity on the validation of the certification by foreign aviation Authorities

ENAC provided assistance for the validation of national products in Third Countries, in particular:

- validation in China of the Tecnam aircraft P92JS e P2006T;
- validation in Peru of the Tecnam aircraft P2006T;
- validation in USA, Canada, China and other foreign Countries of major modifications regarding the helicopters AW139, AW109/119 by Leonardo SpA;
- validation for Canada of major modifications for the regional turboprop aircraft ATR 42/72.

### Engines

The EASA certification activity of the Engine CMD 22 by Costruzioni Motori Diesel SpA (CMD) was concluded in 2019. ENAC has been heavily involved in the process by providing the specialists to EASA.

### Propellers

The supervision of the continuing airworthiness management of the products GT Propellers by Tonini has continued over 2019.

**Remotely Piloted Aircraft Systems (RPAS)**

In 2019 the sector of the Remotely Piloted Aircraft Systems registered a strong growth and it involved:

- 2,697 assessments of RPAS Operators declarations for non-critical specialised operations;
- 824 issuances of authorisation for critical specialised operations (evaluated 891);
- 15 RPAS Permits to fly with operating mass over 25 kg;
- 14 authorisation letters for Research and Development;
- Several consultations in the drones sector;

- Participation to the works of the ICAO, EASA and JARUS Groups.

**Consultation, research and promotion of the aviation sector**

- Participation in Research Programmes and different contexts such as new composite materials, nano-structured, volcanic emissions and alternative fuels;
- Support to FOCA (Federal Office of Civil Aviation-CH) for helicopters certification;

## Activities under ENAC remit

## 2019 Main activities of certification and authorisation

Approval of projects and variations regarding infrastructures, visual aids systems and airport radio aids (new and existing projects)	284
Supervisory visits on the airport construction of works, machineries, visual aids systems and airport radio aids	173
Issuance of aircraft dry-lease authorisations	84
Issuance of aircraft wet-lease authorisations	39
Issuance of aircraft export certificates	145
Issuance of certificates of airworthiness (EASA and Annex II)	74
Issuance of radio station testing attestations	319
Issuance of Permit to fly for Remotely Piloted Aircraft Systems (RPAS) >25 kg	15
Issuance of aircraft Permit to fly	148
Authorisation/exemption/approval dangerous goods (Doc. ICAO 9284)	54
Flyover and stopover authorisation to aircraft in possession of airworthiness certification not issued by ICAO	114
Authorisation to install permanent obstacles for air navigation	95
Authorisation to install temporary obstacles for air navigation	791
Measures to approve and monitor the implementation of airports plan of use	11
Obstacles evaluation requests	1,113
Approval of projects and ongoing modifications	24

## National Aeronautical Registry and Construction Registry

ENAC keeps track of all civil aircraft registered in Italy

### Scheda 2.2 Certification activities

to which the Civil Code attributes the status of registered mobile property. This is done through the National Aeronautical Registry/Construction Registry.

National Aeronautical Registry and Construction Registry Activities		2018	2019
Registration in the Registry of Construction		148	329
Reserves of Registration Marks		97	104
Registrations		78	72
Transcriptions of Ownership Certificate		333	286
Transcriptions of Finance/Operating Lease		349	176
Deregistration		77	84
Surveys/Certifications		1,627	1,378

## Agreements/Memorandum of Understanding with foreign authorities

In 2019, at the end of the dialogue and after a joined audit that took place in April on an exam session carried out by an organisation, holder of an authorisation as Part 147 issued the Swiss civil aviation agency (FOCA) on the Italian territory (without non-compliances), the negotiation phase for the signing of a Memorandum of Understanding (MoU) has been completed. The MoU establishes the reciprocal commitment to provide support, upon request, about the surveillance activities on the training and the exams carried out in the State for which the other Authorities is the Competent Authority, by organisations approved as Part 147 by one of the two Authorities. This MoU is one of the firsts signed in the sector of the Part 147. The proactive approach adopted by ENAC in the management of the above-mentioned situations and the decision to sign this typology of agreements has been verbally appreciated also by EASA.

## Emerging technologies

### Remotely Piloted Aircraft (RPA)

The recent researches aimed at the market have highlighted that in the next ten year the diffusion of digital technologies and technological innovation will radically change the sector and its satellite activities in the most emerging Countries.

The evolving technologies, in particular robotics and Artificial Intelligence (AI), are guiding the most traditional jobs towards automation.

The air transportation industrial world and the more complex Aviation system are opening to these new scenarios: we need to become aware of it and enhance the development of Institutions, Authority and the involved subjects so that they will be a fly-wheel and not a brake in this epoch of change.

The diffusion of the models of smart city, smart economy and even smart governance, where the word "smart" includes the concepts of better quality of life and lower environmental impact due to the intelligent use of technological innovations, are ready



## Scheda 2.2 Certification activities

to revolutionise the transportation sector through the introduction, for example, of autonomous vehicles, artificial intelligence, Internet of Things and Remotely Piloted Aircraft (RPA), commonly called drones.

The RPA are one of the key elements of this industrial revolution because they are intended to enter our daily use more and more, in the most various urban and industrial sectors. Thanks to the increasing awareness of companies, public opinion and different institutional subjects, their use in several fields of applications and commercial sectors will improve the daily work and will make it sustainable.

Their potentiality is to operate in dangerous scenarios, to the benefit of human health, and to carry out particular low cost environmentally friendly operations of public interests and in the interests of big companies.

To date, only in Italy there are some 8,000 specialised operators and 12,000 RPA weighting less than 25kg (recreational models excluded). They already operate in the so-called standard scenarios, regulated by ENAC (activities of commercial use, video recording, remote sensing, photogrammetry, maintenance operations, inspections and the census of industrial infrastructures, powerlines, photovoltaic systems, electrical substations, mobile network systems, detection of electromagnetic field for communications, evaluation of radio signal coverage, land monitoring and transportation of perishable biological material).

### Evolution of the sector

The RPA is constantly evolving and the requests of the sector industry and stakeholders, which ENAC is required to respond, are to use the drones in ever more challenging operations with a higher added value, such as the use in:

- Beyond Visual Line of Sight (BVLOS) scenarios, where the pilot will manage the flight from a remote location, beyond their visual line of sight;
- Automatic and autonomous flight scenarios that do not require the pilot intervention since the new technologies such as 5G to complement the GPS (Global Position System) will be ever more used;

the new connection will be a real revolution not only in the communications field but also in the ones of technology, Artificial Intelligence, Machine Learning and Block chain;

- Usage scenarios such as "base aeree (BS)", Access Points (AP) or relay to support the terrestrial wireless communications from the sky in situations where there is congestion or absence of signal coverage.

The challenge for the Civil Aviation Authorities and the Air Navigation Services Providers is to ensure the safe integration of drones in the airspace next to the piloted aircraft.

### Italian response to the U-Space concept

Thanks to the synergy between ENAC and ENAV, an agreement has been signed in 2016 with the aim of defining the enabling factors to make the coexistence between the traditional air traffic and needs of the new traffic type possible, by allowing the use of RPA for an increasing number of services and ensuring the maintenance of adequate level of safety and security.

The fundamental objectives of the Agreement regard:

- a) the identification of the operational concepts (CONOPS) for BVLOS operations;
- b) the identification of the elements needed to integrate RPA in the airspace;
- c) the implementation and management of a recording and identification system of the remotely piloted aircraft in compliance with the requirements included in the ENAC Regulation;
- d) the beginning of the preparatory activities to provide the Unmanned Traffic Management (UTM) services;
- e) the insurance of the coordination activities aimed the registration, identification and traffic management of the Unmanned Aerial Vehicles (UAV).

The programme involved primary Italian companies that operate also in the field of provision of public utility and industrial partners services, such as Leonardo, Telespazio and IDS-Ingegneria Dei Sistemi, as well as primary stakeholders of the sector of energy, telecommunications, mobile phone and transportations.

### **BVLOS (Beyond Visual Line of Sight) experience**

The ENAC-ENAV initiative on BLVOS drones operations is one of the first at international level and it generated a great interest in the stakeholders. It aims at achieving a range of benefits related to affordability, organisational efficiency and flexibility of use that, all together, contribute to the enhancement of the organisational performances and represent focal points of the experimentation.

The activities have rotated around the use of drones in low-altitude operations such as infrastructures monitoring and maintenance, environmental monitoring, monitoring of areas hit by natural or social events, territory control (borders and coastlines), search and rescue, agriculture, research and development, logistics and delivery, aero photogrammetry and production shoots.

The experimentations that have taken place during the last two years in different location on the Italian territory, on extended areas and different reference scenarios, involved several key stakeholders and included a range of flights operated at increasing distance. The progressive approach is fundamental for the development of a regulatory framework aimed at the integration of the UAV in the national airspace to guarantee safety, security, cybersecurity and privacy.

### **D-Flight implementation**

Another fundamental aspect of the Agreement is the identification of the elements to integrate the UAV in the national airspace. With this regard, an national platform, called D-Flight, has been designed by ENAV SpA with the participation of important industrial partners (e.g. Leonardo and Telespazio) in order to provide the Unmanned Aircraft System Traffic Management (UTM) services and their issuance in accordance with a technological roadmap that anticipates the U-space European programme and the application of the European regulation in order to fly in complete safety and in compliance with the regulations in force.

The D-flight portal, at full capacity, enables the following services:

- identification, management;

- registration of operators and following issuance of QR-Code related to the operator and drone;
- visualisation of the operator's fleet;
- e-identification through an App;
- publication of the maps (at national, road, hybrid and satellite level) in accordance with the ENAC Advisory Circular ATM-09;
- general information.

In the future, the D-flight platform will support the possibility of monitoring the flight of each drone and provide the law enforcement with real-time information on the operator who is operating a drone in a specific moment and place.

**E** **ENAC activity in 2019**  
The ENAC objectives for 2019 have been the following:

- revise the national regulation to guide the sector towards the new European regulations and regulate the BVLOS operations in accordance to the reference scenarios already validated;
- extend the experimentation campaign to BVLOS operations in more complex scenarios such as cities and airports, begin experimentations of automatic and autonomous flight, starting from the sites which are object of specific agreements with ENAC, as the test-bed of the Taranto-Grottaglie airport and the DORALAB of Turin, and then extend them to the entire national territory;
- evaluate the BVLOS simultaneous operations of group of drones managed by a single pilot;
- launch the services of the D-flight platform.

### **Regulatory aspects**

From the regulatory point of view, the 2019 has represented a turning point. In fact, in the month of June the European Commission published in the Italian Official Journal the Delegated Regulation (EU) no. 2019/945 that established the rules on placing on the market of RPAS and the related Implementing Regulation (EU) no. 2019/947 that defines the rules applicable to RPAS operations, pilots and operators. These regulations will entry into force on January 1,

## Scheda 2.2 Certification activities

2021. The European Regulation aim at integrating in a safe way all the remotely piloted aircraft, small drones included, in the European airspace through shared safety rules inspired to the principles of proportionality, centrality of the operations, risk and performance based, progressiveness and simplicity. In order to facilitate the transition, ENAC has elaborated a regulatory modification to anticipate at Italian level some requirements deriving from the European Regulations (EU) 2019/945 and 2019/947. In this regulatory review, besides removing the

distinction between professional and recreational use of RPAS, the D-flight portal has been identified as technological infrastructure for the supply of the services of registration, identification and publication of the information on the geographic areas applicable to RPA.

D-flight is also considered to be the access point of the RPA operators to submit the registration and, in case of critical operations in standard scenarios, to deliver the declaration to ENAC.

### PERMANENT TECHNICAL FORUM ON ROTOR WING

Besides the activities of certification and continuing airworthiness carried out on EASA behalf on the main helicopter models designed in Italy, ENAC has started in 2019 an important initiative of safety, called Forum Ala Rotante Italiana (FARI) – Italian Rotor Wing Forum – aimed at developing proposals and projects to increase the safety of helicopter operations in Italy by sharing experiences and competences in the field of design, manufacture, maintenance and operation of helicopters.

Furthermore, FARI represents ENAC intent of being the natural place where all the information related to the new regulatory initiatives developed by EASA with impact on helicopters operations will be disseminated and shared. At the same time, it will allow the national industry and the operators to contribute in and affect the decisional processes of the Agency by elaborating advices and dedicated proposal through ENAC.

The first meeting of the Forum took place on December 19, 2019 and 18 representatives of some of the major Italian helicopters Operators participated in it together with Leonardo Helicopters and Airbus Helicopters.

Lastly, it is worth noting how, over 2019, the ENAC international activity in the helicopters field, and especially in the EASA context, has been strengthened by participating in the EASA Rotorcraft Committee, advisory body consisting of the main helicopter operators and European manufacturer, and by the appointment, at the end of 2019, of two members in the EASA "NAA Rotorcraft Expert", the advisory group of the experts of the European Civil Aviation Authorities in the helicopter field.

### SUBORBITAL FLIGHTS

The activity on the commercial suborbital transportation begins with the Memorandum of Cooperation in the Development of Commercial Space Transportation, signed by ENAC and FAA in 2014 and renewed in 2016 with the participation of the Italian Space Agency.

Noting the preliminary work carried out by ENAC since 2014, on July 10, 2017 the Ministry of Infrastructure and Transportation published the Act of Address on the sustainable development of the sector of commercial suborbital flights that identifies ENAC as the implementing subject. ENAC is in charge of elaborating, within its regulatory autonomy and the Space Economy framework, a project that defines in a three-year period the regulatory framework on the implementation of the commercial suborbital transportation operations in Italy and the adequate safety level for both the third parties on the ground and the occupants, in line with the state of art and the technological development of the sector.

Following the Act of Address, ENAC formally established a task force aimed at the project development through the coordination of the work group with the sector key stakeholders in order to elaborate the regulations.

The draft of the Regulation on construction and management of spaceports has been finalised in 2019 and published on ENAC website in the first months of 2020 in consultation for the stakeholders. Moreover, the work scheme for the

preparation of the Regulation on flight operations of suborbital vehicles has been defined.

The operation centric approach is aimed at ensuring an adequate level of protection of the third parties on the ground and in the air as well as for the people on-board, as permitted by the state of art and the characteristics introduced by the emerging new technologies.

The ongoing work at European level under the impulse of the EU Commission consists of:

- (i) the preparation of the ConOps HAO (specification document for high altitude operations) under the Eurocontrol coordination and in collaboration with the States and the sector industries, on the basis which EASA will be able to develop the preparatory work related to the regulatory aspects;
- (ii) the beginning of a preparatory work for the definition of the HAO regulatory framework, under EASA coordination. It will be harmonised at European level and it will take into consideration both the ConOps HAO and the experiences and evolving regulatory approaches in the European States, such as Italy and UK with regard to the suborbital flight and the access to space.

Italy actively participates in this activity through ENAC, ENAV and CIRA (Italian Aerospace Research Centre).

All what has been mentioned above respects the High-Level Principles based on the concepts of the performance-based regulation of the risk-based proportionality.

With regard to the coordination between the EU Member States on the topic of commercial suborbital transportation and access to space, the European Group on Suborbital Flight Regulation (EGSFR) is active from 2016 and it consists of the Aviation Authorities, the Space Agencies and other government agencies bonded by ongoing regulatory activities on suborbital flight or in which they are interested, with the aim of discussing the common problems and produce potential informative material as well as guidelines to support the regulatory development; Italy held the presidency in 2019 through ENAC.

# ORGANISATIONS OVERSIGHT

In accordance with national and international standards, the oversight activities are carried out by ENAC based on a National Oversight Program through two main types of inspections:

- Audits, formal programmed and unplanned inspections conducted on organisations, infrastructures, staff, equipment, documentation, procedures, processes and

products, to verify compliance with certification requirements and monitor technical and/or operational processes.

- Inspections, so-called "deep cut" inspections on a particular topic or activity, both on land and in flight, programmed and unplanned, possibly even unannounced.

Approved organisations as of 31/12	2017	2018	2019	With PBO applied in 2019
<b>ADR</b> Airports open to commercial traffic	43	43	41	yes
<b>ANSP</b> Air Navigation Service Provider	7	7	10	yes
<b>POA</b> Production Organisation Approval (Part 21 Subpart F) - Production Organisations without certification privilege	4	4	5	no
<b>POA</b> Production Organisation Approval (Part 21 Subpart G) - Production Organisations with certification privilege	52	54	55	yes
<b>AMO</b> Approved Maintenance Organisation (Part 145) - Maintenance Organisations of aircraft classified as "Large aircraft" or used for Commercial Air Transport and/or their components	128	133	129	yes
<b>AMTO</b> Approved Maintenance Training Organisation (Part 147) - Training Organisations for technical personnel operating in maintenance organisations	14	15	15	yes
<b>AMO</b> Approved Maintenance Organisation (PART M Subpart F) - Maintenance Organisations of aircraft except those classified as "Large aircraft" or used for Commercial Air Transport and/or components	37	37	34	yes
<b>CAMO</b> Continuing Airworthiness Management Organisation (Part M Subpart G) - Organisations for the management of aircraft airworthiness	123	116	113	yes
<b>COA</b> Wing-Fixed/ Helicopter Air Operator Certificate - Air operators performing public transport for passengers/cargo	57	59	59	yes
<b>COLA</b> Non-EASA Aerial Work Operator Certificate	23	6	3	no
<b>COAN</b> Aerial Fire Operator Certificate	-	30	26	no
<b>NCC</b> Non-Commercial Complex Declaration - Private Operators flying complex aircraft which conduct non-commercial activities	-	18	19	no
<b>SPO</b> Non-critical operations Aerial Work Operator Certificate - operators performing aerial work, such as crop spraying, aerial displays, aerial surveys, radio measurements, etc.	69	52	49	no
<b>SPO</b> Critical operations Aerial Work Operator Certificate - operators performing aerial work critical operations	30	34	26	no

Approved organisations as of 31/12	2017	2018	2019	With PBO applied in 2019
<b>AeMC</b> Aero Medical Centres - Aero Medical Centres for the issuance of psychophysical medical certificate for flight crew and air traffic controllers	3	3	3	no
<b>OR</b> Registered Organisations - Organisations that provide training for private pilots	63	54	9	no
<b>ATO</b> Approved Training Organisation - Organisations that provide the training of air crews	78	81	77	yes
<b>Laboratories</b> - Organisations conducting tests/ examinations on aircraft, engines, propellers, parts, systems or aerospace materials	6	6	4	no
<b>DTO</b> Declared Training Organization - Organisations that provide the training to achieve the pilot licence for light aircraft, after a declaration to ENAC	-	5	43	no
<b>CA RPA</b> – Training centres for RPA pilots	-	65	34	no
<b>FSTD</b> Flight Simulator Training Devices – Training devices for pilots	40	46	47	no
<b>FSTD</b> Flight Simulator Training Devices - Training devices for pilots on EASA behalf	-	-	35	no
<b>SPA</b> – Commercial Operator with Specific Approvals	-	5	11	no

## National Oversight Programme of Certified Organisations

The oversight activity, assigned to the National Authority by the international legislation, is one of the tools that allow the safety monitoring in the Civil Aviation. ENAC organised its oversight activity specialising the oversight programme for each certified organisation. The logic under it is to characterise the organisations classifying them based on their complexity and performance. The purpose of this logic, whose implementation has started in 2016, is to focus the surveillance activity on the areas whose certification deserves more attention (complexity or performance of the certification itself), by optimising the surveillance teams' resources.

The first two-year period of Performance Based Oversight (PBO) implementation ended in 2018 for the majority of the certifications of the aviation sector; the first year of

implementation has ended for the remaining ones, airports included.

The final data evaluation compared to the expected data will allow, in 2019, the calculation correction of the manpower related to the different processes and the optimisation of the inspections number by privileging the indicators that showed a higher level of criticality.

Moreover, the first year of use of the computer tool is complete. Based on the Google Drive platform, it allowed to automate the elaboration, approval and archiving of the surveillance plan of all the certified organisations. This permitted to concretely finish the first phase of data collection, much faster and systematic compared to the past, to start the evaluations to level out, at national level, the surveillance planning and quantification criteria and to analyse the data in order to achieve a better use of the available resources.

## Main oversight activities carried out in 2019 in terms of number of Audits performed (on site/desktop)

<b>Aerodromes</b> (Reg. EU no. 139/2014 and Reg. ENAC)	156
<b>AMO F</b> – Approved Maintenance Organisation as Part M Chapter F	47
<b>CAMO</b> – Continuing airworthiness management Organisation as Part M Chapter G (Commercial Transportation Sector)	351
<b>CAMO</b> - Continuing airworthiness management Organisation (Non-Commercial Transportation Sector)	200
<b>AOC</b> - Air Operator's Certificate	576
<b>CVRP</b> – Parachute Folding Verification Centre	7
<b>ATO</b> - Aircraft Training Organisations	352
<b>COLA</b> – Non-EASA Aerial Work Operator Certificate (not converted in SPO and COAN)	8
<b>SPO HR</b> – High Risk Specialised Operations Organisations	77
<b>SPO DEC</b> - Specialised Operations Organisations	32
<b>COAN</b> - Organisations for non-commercial specialised operations not included in the regulation (EU) 965/2012 (es. Fire prevention)	10
<b>ATM/ANS (ANSF)</b> – Air Navigation Services Providers	80
<b>Laboratories for Technological Tests</b>	5
<b>DTO</b> – Declared Training Organizations (Pilots training)	54
<b>AMO Part 145</b> - Approved Maintenance Organisation as Part 145	444
<b>AMTO Part 147</b> - Approved Maintenance Training Organisations Organisation as Part 147	31
<b>POA F</b> - Production Organisation Approval as Part 21 Chapter F	5
<b>POA G</b> – Production Organisation Approval as Part 21 Chapter G	148
<b>APR</b> – Training centres for drones' pilots	10
<b>FSTD</b> - Flight Simulation Training Devices Qualified by ENAC	94
<b>FAA</b> - Maintenance Organisation as FAR Part 145 on the Italian territory	35
<b>TCCA</b> - Maintenance Organisation as CAR 573 on the Italian territory	19
<b>ATCO</b>	15
Ramp Inspections	793
SANA Inspections	48
ACAM Inspections	144

Airport inspections in 2019	
Flight Safety	1,772
Aerodrome Safety	377
Handling	1,650
Security	1,875
Security (National Aviation Security Quality Control Team)	40
Handling (National Aviation Handling Quality Control Team)	14
Charter of Rights and Quality of Services	1,066
Quality of services (monitorings)	2,986
Started sanctions for violations of the (EC) Reg. no. 261/2004	163 (reports)

### QUALITY ASSURANCE AUDIT

The Quality Assurance Audit is an instrument in support of the policies, controls and monitoring carried out by ENAC whose results provide the information, based on the identification of risks and opportunities, on which ENAC can take action to improve the performances and implement the Monitoring and Ongoing Improvement System.

The Quality Assurance Audit consists in controlling the streams of the activities and the related documentation through the interviews conducted by the auditors, using ad-hoc check lists, to the personnel in charge of the specific activities with the objective of assessing the compliance of the execution modalities with the requirements included in the rules, standards, Manuals and operational and organisational procedures.

The Quality Assurance Audit is a tool to:

- ensure the systematic control of the management system functioning;
- verify the system requirements efficacy, suitability and compliance, as required;
- offer ENAC the opportunity to improve its Management System;
- evaluate the overall quality performances and support the enhancement of the ENAC processes and activities as well as the services provided to the users.

The audit choice is defined on the basis of objective elements referable to:

- findings emerged during the ICAO/European Commission/EASA standardisations visits;
- ICAO/European Commission/EASA standardisations visits programme;
- comments received by ENAC from Institutional Bodies;
- new processes or working methods;
- users' needs;
- priorities declared by the Directorate General;
- processes that require improvement actions;
- improvement of the quality management system;
- specific or contingent needs (organisational and procedural changes);
- opportunity to check the standardisation adequacy;
- follow-up on previous Quality audits;
- critical processes as identified by the Risk Management System;
- results of the performances review.

The activity of Quality Assurance Audit, further developed in 2019, has started with the goal of evaluating ENAC certification, surveillance and oversight compliance with the current legislation and identifying possible system anomalies and opportunities for improvement.



## Sheet 2.3 Organisations oversight

### Air Navigation Services Providers (ANSP) oversight

The oversight activities of the Air Navigation Services Providers is conducted by ENAC as described in the Italian Air Navigation Code and in the Implementation Rules issued by EU.

As for the certified organisations in the other fields of the aviation sector, the oversight activities are carried out on the basis of a "National Oversight Programme" through audits and inspections conducted by ENAC on the organisations that operate in the sector of the Air Navigation Services, in particular:

- Air navigation services providers: Air traffic service-ATS, Flight Information-FIS, Air Traffic Flow Management-AFTN, Aeronautic meteorology-MET, Aeronautic information-AIS, Communication, Navigation, Surveillance-CNS;
- Training of the staff involved in the air navigation services: Air Traffic Controller, Meteorologists (Observers and Forecaster), Flight Information Service Operators, Technical Services Staff (CNS);
- Organisations in charge of planning the instrument flight procedures.

The 2019 oversight programme for the air navigation services providers has been elaborated following the

principles of the Performance Based Oversight (PBO), by planning the oversight activity based on the safety complexity and performances of the certified organisations that are provided with a management system (MS). Following the EU regulations that are regularly evolving, the certified organisations implement accurate operational and surveillance processes regarding both safety and security, structured and officialised in a specific safety management document: the Safety Management System (SMS). The correct processes elaboration and their conformity to the regulations is verified by ENAC by on-site and documentary inspections.

The 2019 has been the year of preparation to the complete transition to the new normative paradigm made up of the Implementing Regulation (EU) no. 2017/373 that included the Airspace management in the EASA regulatory structure, as other aviation domains such as the airports, the licences and the airworthiness.

In 2019, ENAC issued a new certificate regarding the Communication service supply in the CNS (Communication, Navigation, Surveillance) domain of the Air Navigation Services, to the Company "Telespazio SpA". In the field on the Air Navigation Services, ENAC approves the following organisation types:

TYPE OF APPROVAL	NUMBER OF ORGANISATIONS
Air Navigation Service Provider (ANSP)	8 (included in PBO)
Flight Procedure Design Organisation (FPDO)	3
ATS Training Organisation (TO)	2

### Main oversight activities in 2019

Audit on the air navigation services providers	26
Audit on the staff training organisations (ATCO, FISO)	10
Audit on the organisations of flight procedure planning	2
Review of Risk Assessment documents concerning the ATM functional system modifications	12
Examined Declaration of Verification (DoV) concerning the commissioning of systems and/or air navigation procedures	18

2019 Oversight activity findings				
Type of Organisation	Number of Audit	Level 1 Findings	Level 2 Findings	Level 3 Findings
		Major non-conformity with the certification requirements, immediate adoption of measures to ensure safety	Non-conformity with the certification requirements to be recovered through actions and timeframe arranged with ENAC	ENAC observations to improve the standards and to point out areas to be monitored
<b>ANSP</b>	26	0	83	70
<b>TO</b>	10	0	20	5
<b>FPDO</b>	2	0	1	7

The most relevant ANSP is ENAV SpA, which manages almost the entirety of the general commercial air traffic and about the 80% of the traffic in the ending areas. The 20% left is managed by the Italian Air Force which signed a Technical agreement with ENAC in order to regulate the surveillance activity. The agreement, respecting the European regulations and the Italian Air Navigation Code, establishes an indirect supervision to provide the navigation services, through a yearly report about the facts of the activity and the services quality; a direct supervision involves the training organisation and the training centres. For this reason, the Italian Air Force operate in a certificate derogation state as ENAC certified authority for training. ENAV SpA received four different certifications: three about services supply, flight procedures and airspace design (in compliance with the Law no. 242/1980 and the Reg. EC 2150/2005) and one as training organisation.

Beside the two main services suppliers, other 6 certified AFIS operates on minor airports, 3 training schools Flight Information Service Operators (FISO) and 3 organisations in charge of the flight procedures creation. In this context, the flight procedures elaboration as consequence of the new European regulation 139/2014 about airports management, has relevance.

It is worth noticing that the Italian regulatory framework, which assigns to ENAC the airspace management and to the service providers the designing of the flight procedures, anticipates the framework that will be introduced in the Single European Sky (SES) management by the new Basic Regulation.

In 2019, at conclusion of frequencies codification migration to 8.33 kHz, ENAC, in the role of Italian interface for the EU Commission, continued to oversee all the ground operators and managed the requests for exemption for the State

aircraft and for the fixed stations not involved in the transit. The ENAC's activity in air navigation services field, beside ensuring a high and uniform level of safety through audits and inspections, is aimed at ensuring the integration and the interoperability of the national traffic managing systems in the European Air Traffic Management Network-EATMN. In this perspective, ENAC conducts an active supervision in order to ensure a coherent and coordinated introduction of the new technologies in the air traffic management, in accordance with European program SESAR, technological pillar of the regulatory project Single European Sky, whose complete implementation is planned for 2035.

This activity is implemented through three main processes:

- application monitoring of the regulations related to the EATMN network;
- analyse of the Technical Dossier and Declaration of Verification (DoV) related to the EATMN network systems launch;
- risk assessment monitoring which are related to each modification introduced in the air traffic management system.

In 2019 there has been the implementation of the new Basic Regulation (BR) (Regulation EU no. 2018/1139), that replaced the 2008 Regulation EC no. 216/2008, and integrated more and more the different parts of the aviation world (flight operators, airports, air navigation services), by continuing the harmonisation process of safety management. It started in 2015 in the sector of Air Navigation Services with the regulation on the grant of Air Traffic Controller licences and it has been reaffirmed in 2017 with the European regulation that revised the application criteria of the common requirements of the Air Navigation Services Providers, whose complete implementation took place on January 2, 2020 by introducing verification

## Sheet 2.3 Organisations oversight

procedures that are similar to the ones already in use in other aviation domains.

### Programme ACAM (Aircraft Continuing Airworthiness Monitoring)

ENAC, in accordance with the Annex II of the Reg. (EU) no. 1321/2014, carries out a programme of random control on the national fleet airworthiness state (ACAM Programme),

conducted by three different kinds of inspection (In-depth, Ramp, in Flight), in which an aircraft physical check has always carried out, even if it is not needed to make all three kinds of verification at the same time. The verifications are grouped in the Key Risk Elements-KRE, defined by the applicable legislation, in order to simplify the non-compliance control strategy elaboration, also categorised under KRE.

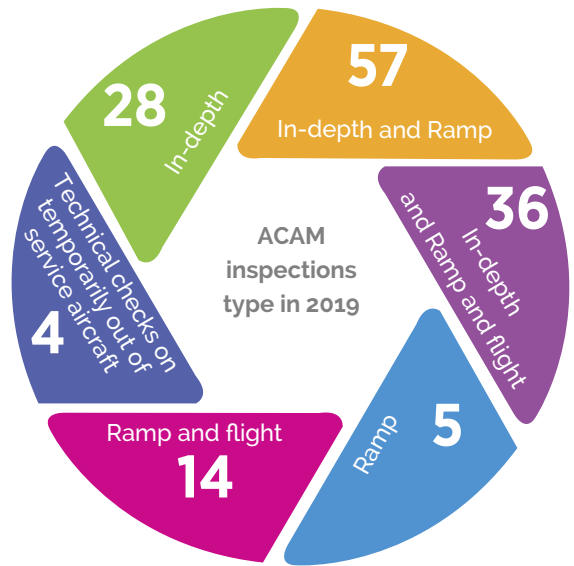
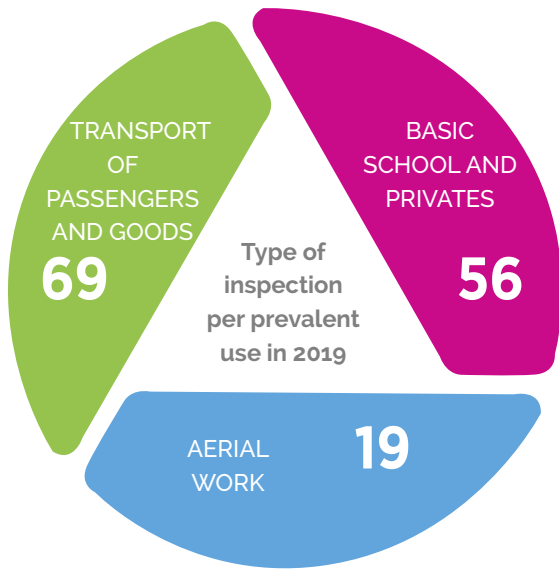
	2017	2018	2019
Number of inspections	139	131	144
Number of findings	90	102	86
Incidence findings/inspections	0.647	0.779	0.597

Detected findings per risk element					
KRE	Description	Examined	Findings 2017	Findings 2018	Findings 2019
A.1	Type project and its modifications	93	5	1	0
A.2	Airworthiness limitations	51	9	8	8
A.3	Airworthiness Directives	54	3	5	1
B.1	Aircraft documents	56	5	6	7
B.2	Flight manual	51	7	0	6
B.3	Mass and balancing	32	4	5	3
B.4	Labelling and tags	49	17	12	7
B.5	Operational requirements	45	3	5	2
B.6	Flaws management	43	6	10	5
C.1	Maintenance programme	53	13	30	24
C.2	Components control	49	4	8	5
C.3	Restorations	40	1	1	1
C.4	Registrations	54	13	11	17
<b>TOTAL</b>		<b>666</b>	<b>90</b>	<b>102</b>	<b>86</b>

In 2019 14 inspections on aircraft used by Italian operators but registered abroad have been performed, slightly less than the year before caused, among the others, by the decrease of the leased fleet. The same sampling approach has been maintained and the inspections have been carried out on all kinds of aircraft, in proportion to fleet size.

Moreover, in the scenario of a constant interaction with

foreigner air carriers, it is essential to discuss with the Civil Aviation Authorities of the Countries included in EASA. For the first time, it has been experimented the "mandate" for carrying out the ACAM inspections on aircraft registered in Italy and operating abroad, such as in the case of two aircraft operating in Greece and Romania. In this case, the inspections have been carried out by Greek and Romanian inspectors under ENAC guidance.



### Oversight on foreign operators

The oversight activity on foreign operators has been started in 2004 by ENAC through the ramp inspection programme. The new business models adopted by some air carriers have multiplied the records of cross-borders operations that now include also aviation activities out of the commercial air transportation.

The oversight model exclusively based on the competent Authority on the territory where the company management is located, is not fully suitable to face the challenges of an increasingly more internationalised aeronautic world which is able to take advantage from the possibilities offered by

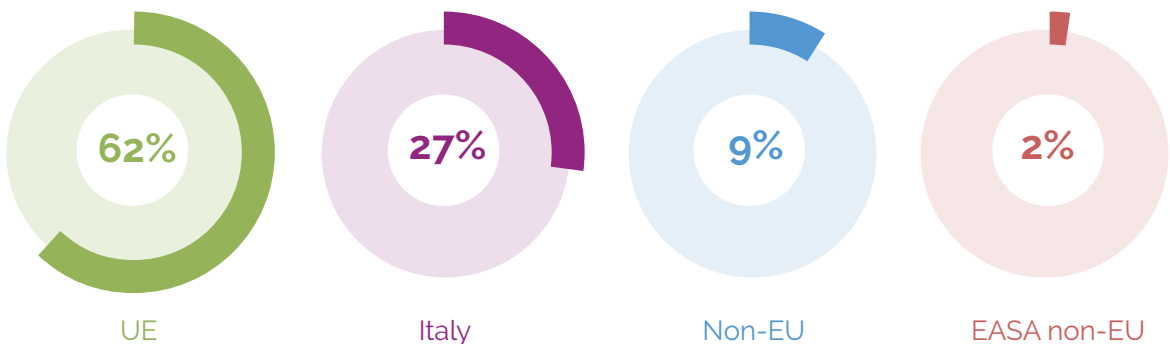
fiscal systems substantially different even if all included within the European Union.

In fact, the aviation internal market opening measures have not been followed by the homogenisation of the labour cost and the taxation system; additionally, the uncertainty over Brexit has multiplied the migration of companies within EU, in many cases taking the theatre of operations away from where the surveillance takes place.

In this scenario, the Italian market of commercial air transportation is ever more dominated by European companies that operate the majority of their flights from the Italian airports.

### 2019 TRAFFIC IN ITALY

Distribution of IFR landings on Italian airports per air carrier nationality



## Sheet 2.3 Organisations oversight

Compared to the last year, there has been a 3% recover of the market share of the non-EU air carriers; this may be due to the unavailability of the Boeing 737 MAX. Actually, many European air carriers had planned a progressive replacement of their Boeing 737-800 with the MAX, but the well-known accidents and the ban of the new aircraft obliged them to make wet lease agreements with the

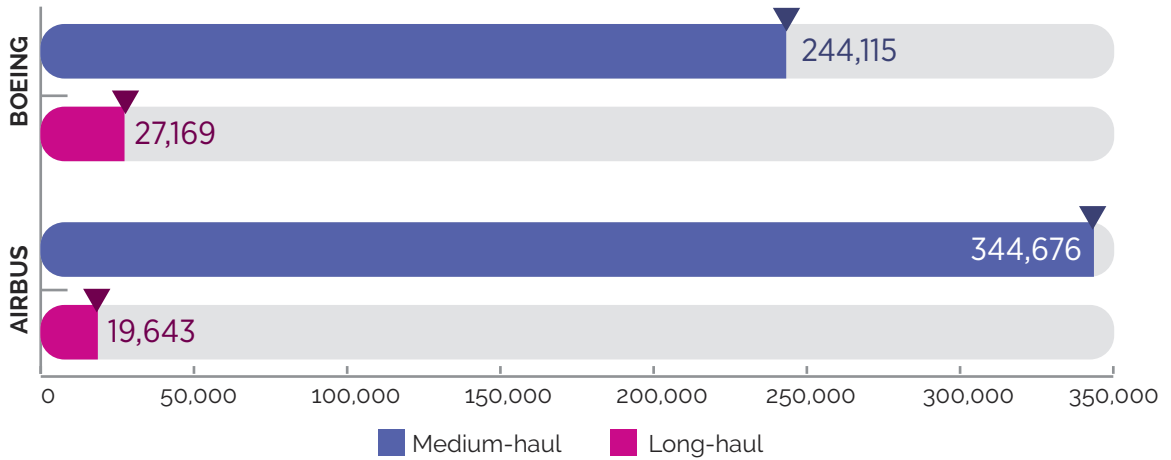
European Air Carriers not part of the EU.

The diagrams below show the use of aircraft of the most important manufacturers worldwide.

The crisis of Boeing and the placing on the market of the NEO Airbus models has favoured the European manufacturer for the medium-haul and Boeing on the long-haul.

### Landings 2019

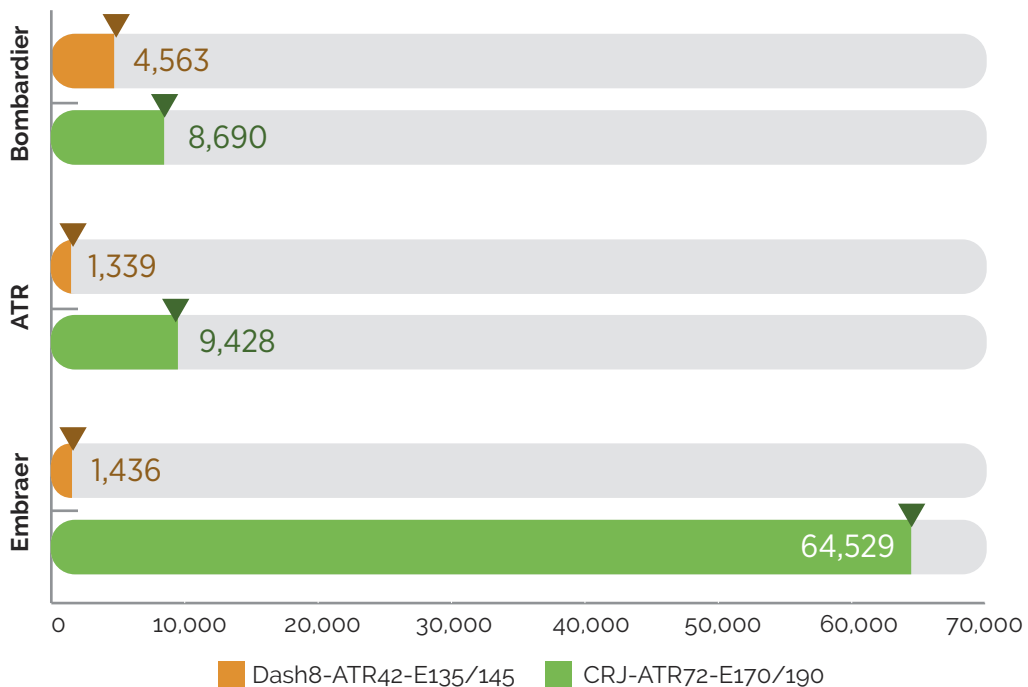
Comparison between the landings of models by Boeing and Airbus



With regard to regional jets, the most used by far are the Embraer aircraft, while the most frequent turboprop aircraft

on Italian airports is the Dash-8.

### Regional aircraft landings in 2019



The number of foreign commercial air carriers that in 2019 landed at least once in Italy is 582, 47 less compared to 2018 and 113 less compared to 2017.

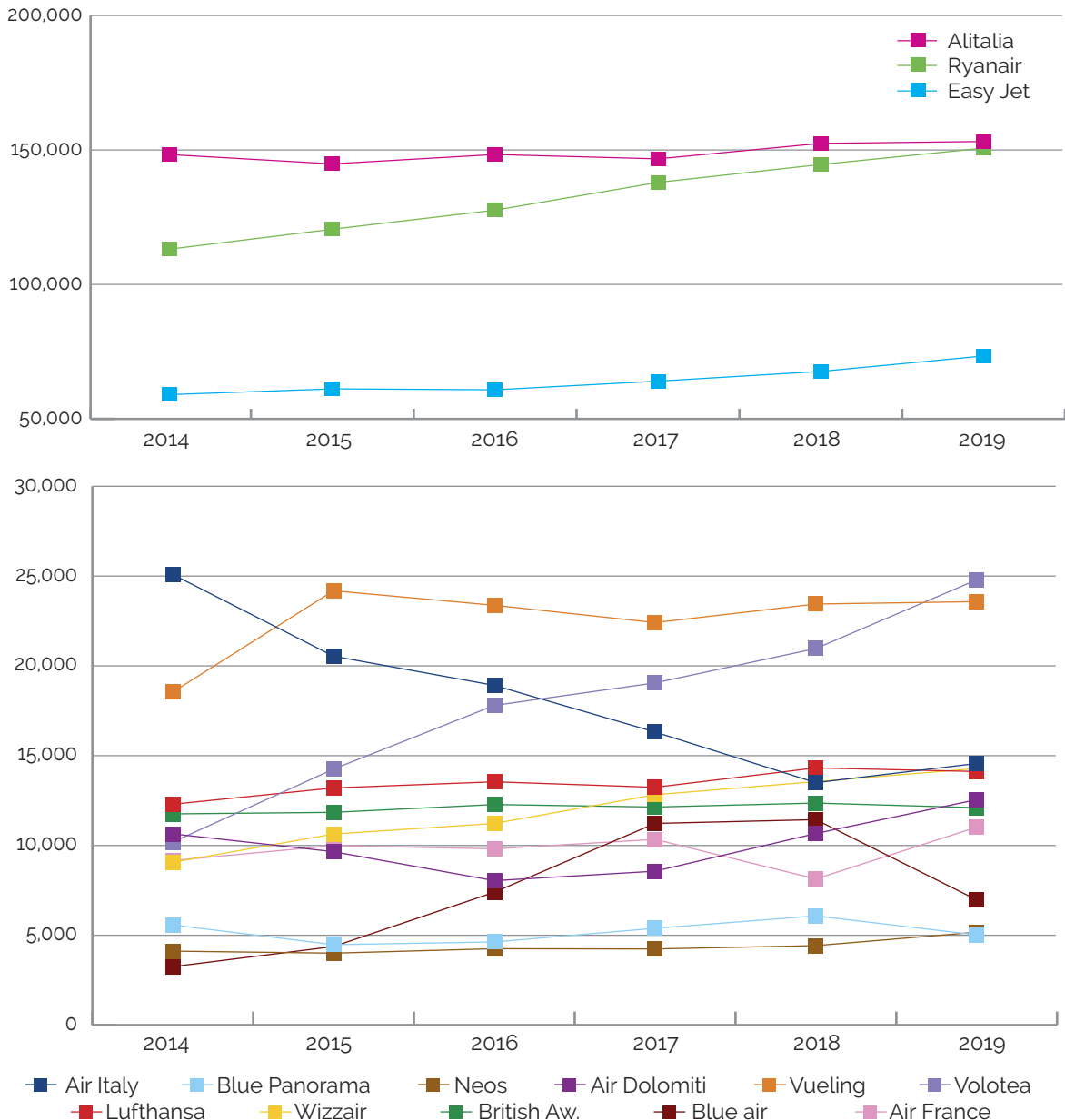
The decrease of this number is not due to the loss of interest of Italy as a touristic destination, however it can be related to the stabilisation of the air carriers, above in the European market; another evaluation to be done regards the possible decrease of business air carriers that, besides depending on a stabilisation process, may also be an indicator of sluggish economy.

The air carriers that have been inspected at least once are

370 and they represent the 64% of the total: a growing number if compared to the previous years. It should be added that only the 53% of the 582 air carriers performed at least 60 landings, which is considered to be the minimum number in order to plan at least one inspection over the year. To be noted that the percentage of air carriers with more than 60 landings has been 48% in 2018, in confirmation of the more fragmented market in the previous year.

The majority of the traffic has been generated by the air carriers included in the following graphs.

### Traffic trend of major air carriers



Landing in Italy as operative air carrier (Alitalia includes also the Alitalia Cityliner flights and Air Italy includes also the Meridiana flights).

## Sheet 2.3 Organisations oversight

The analysis of the last five-year trend shows that the most active air carriers on the Italian market have all increased their traffic volumes, in particular Ryanair, Easy Jet and Volotea. The presence of the European major air carriers and Vueling has been stable; the 2019 activity of Blue air has decreased, after some years of strong growth. In order to make a comparison, the data of the Italian major passenger transport operators is reported: the data regarding Alitalia includes flights operated by Alitalia Cityliner, while the curve of Air Italy takes into consideration the flights operated by Air Italy and Meridiana. Among the Italian air carriers, Air Italy shows a big drop partially due to the long transition period to become a single company after the merger between Meridiana and Air Italy, and partially due to the network revision following the addition of Qatar Airways as shareholder, which allowed an increase of the long-haul flights number. Furthermore, the activity of Blue Panorama has been weak and the trends of Neos and Air Dolomiti have been good, with the latter in sharp growth.

## Ramp Inspections

The art. 9 of the Basic Regulation (Reg. EC no. 216/2008) requires the compliance with the ICAO standards for the aircraft in transit on the European airports. The entry into force of the EU Reg. no. 965/2012 definitively implemented the above-mentioned article and now the complex activities related to a ramp inspection of an aircraft used by a Third Country operators is an institutional activity for any Civil Aviation Authority. Because of that, the "separated programme" status is concluded and the SAFA acronym does not appear anymore in the related regulation. It has been replaced by the more generic "Ramp Inspection", even if the previous expression has remained in the informal language. Today, if we mention SAFA inspections we refer to aircraft used by air carriers of non-EASA States, in contrast to SACA inspections that refer to all the other cases.

Over 2019, the number of the qualified ramp inspectors has been equal to 18 airport inspectors + 4 professionals.

Inspective activity in the last three-year period

	2017		2018		2019	
	UE	non-EU	EASA	non EASA	EASA	non EASA
Total Inspections	465	361	526	289	504	289
	56%	44%	65%	35%	64%	36%
	<b>826</b>		<b>815</b>		<b>793</b>	
Inspected Aircraft	439	339	496	277	478	271
	<b>778</b>		<b>773</b>		<b>749</b>	
Inspected operators	242	200	265	158	237	138
	55%	45%	63%	37%	63%	37%
	<b>442<sup>1</sup></b>		<b>423<sup>2</sup></b>		<b>375<sup>3</sup></b>	
Inspected Countries	<b>27</b>	<b>52</b>	<b>30</b>	<b>44</b>	<b>30</b>	<b>48</b>

<sup>1</sup> 374 commercial and 68 private; <sup>2</sup> 373 commercial and 50 private; <sup>3</sup> 370 commercial and 5 private.

After the significant change of the inspections planning system carried out by EASA that came into force in 2018, the activity regarding the EASA and non-EASA inspected air carriers has remained stable.

The 2019 planning activity initially assigned by EASA established some targets that were slightly higher compared to the previous year ones in terms of

inspections. The targets are elaborated on the basis of the risk analysis conducted on the operator and on the traffic data of the previous year: if the former does not change much from year to year, the latter may be subject to significant changes at National State level.

For this reason, EASA established a midyear update in July in order to better adapt the planning to the reality of the air

connections. Following the update, the initial mandatory targets become the acceptable range of inspections and some operators can move from the Layer 1 to the Layer 2. The outcomes of the inspective activity are included in the following table and compared to the midyear update planning.

Inspections			
Planned		Performed	
layer 1 inspections assigned	474-560	layer 1 performed	498
layer 2 assigned	184	layer 2 performed	295
<b>Total assigned</b>	<b>658-744</b>	<b>Total performed</b>	<b>793</b>

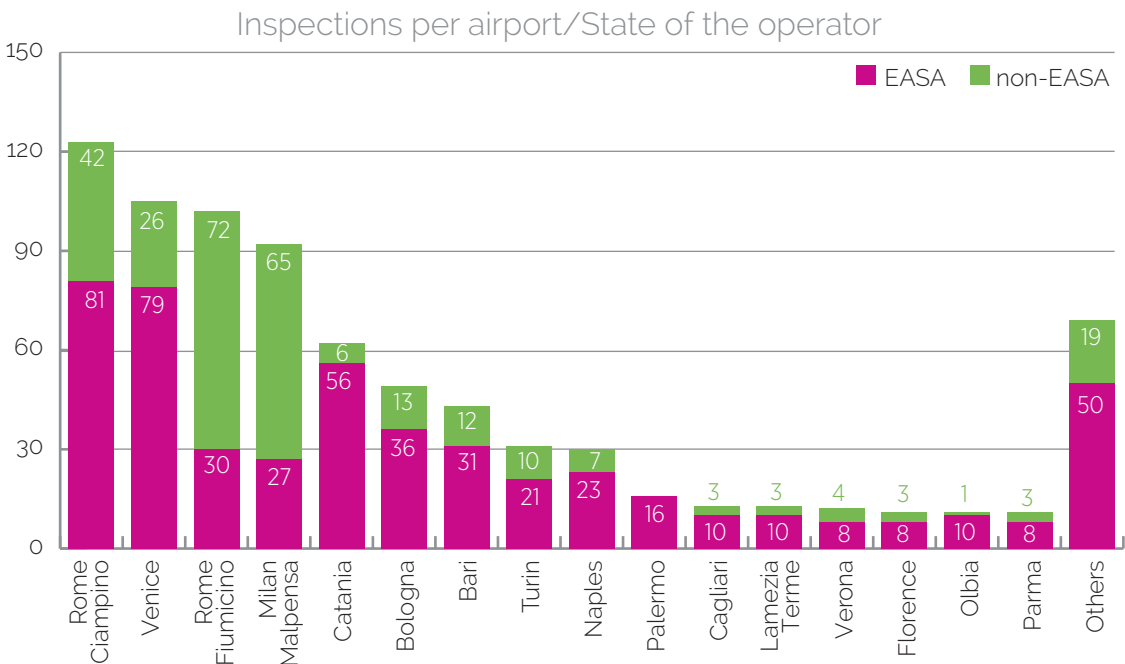
As shown by the data, ENAC carried out the inspections assigned by EASA and the 160% of the planned inspection for the less inspected air carriers, goal of the System Wide Coordination project. The Italian total contribution to the programme exceeded of 7% the expected value included in the planning.

The inspections outcomes highlighted a decrease of inspections with major findings and a consequent increase of those without findings (+6%) and with minor findings (+1.5%). This dynamic may be caused by the normal fluctuations from year to year, in a system of control which is now mature and can take significant innovations only in case of change of the inspection procedures.

	Findings in the last three-year period					
	2017		2018		2019	
No findings	457	55.30%	420	51.50%	456	57.50%
Cat.1 findings only	81	9.80%	107	13.10%	116	14.60%
At least a Cat. 2 finding and no Cat. 3 finding	143	17.30%	135	16.60%	121	15.30%
At least a Cat. 3 finding	145	17.60%	153	18.80%	100	12.60%
<b>Total inspections</b>	<b>826</b>	<b>100%</b>	<b>815</b>	<b>100%</b>	<b>793</b>	<b>100%</b>

The geographic coverage of the inspective activity is in line with the 2018 data with 33 airports covered. Air taxis and non-commercial air carriers with complex aircraft continued to receive major attention compared to the

previous years and this explains the motivation of the larger inspections number in Rome Ciampino if compared to airports with higher traffic as Rome Fiumicino and Milan Malpensa.





## Sheet 2.3 Organisations oversight

The most common findings among those with a higher impact on flight safety are those related to the access to emergency exits. In 2018 there was a high incidence also of the findings connected to the load in the luggage compartments but in 2019 this element had a lower effect. The findings about aircraft flaws monitoring, mistakes in the operational flight plan compilation remain stable. The cases of access doors latch poorly set is still among the first causes of Level 2 findings.

### Joint activity with other Authorities

In a scenario of regular interaction with foreign operators it is essential to confront with other Civil Aviation Authorities, not only European. These activities are carried out as follows:

- joint audit with Authorities in charge for foreign operators based in Italy;
- periodic reporting of the inconveniences happened in Italy;
- mixed teams ramp inspections with inspectors from other Countries;
- support activity to other Authorities.

In 2019, two joint audits have been conducted:

- with the Lithuanian Authority in Pantelleria and Lampedusa for the operating bases and for DAT air carrier maintenance, which have the public service

obligation concession from the islands to Palermo, Catania and Trapani;

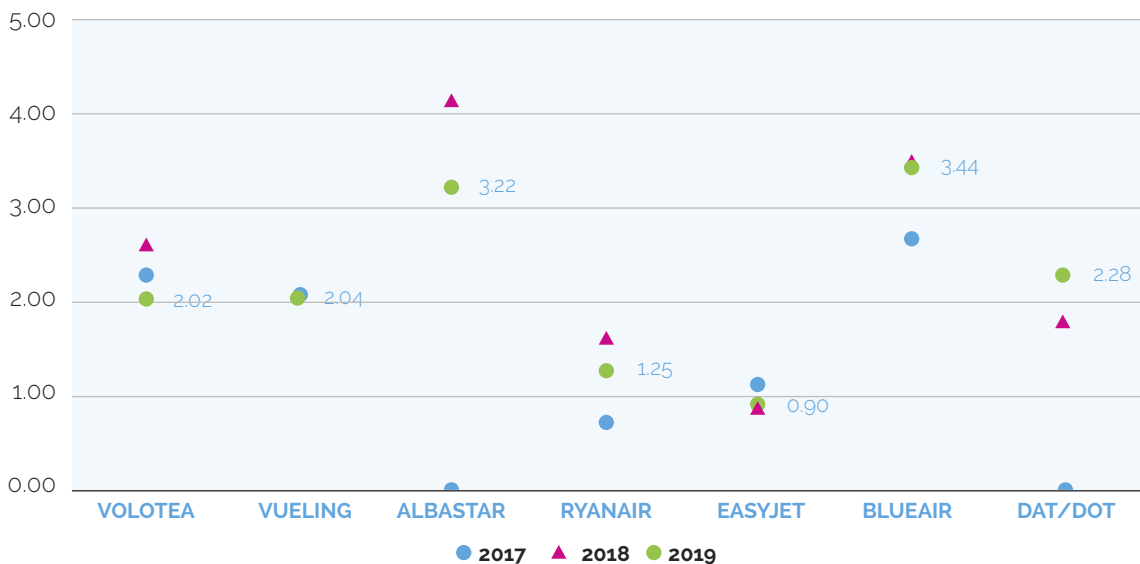
- with AESA Spain for the verification of the Volotea operating base in Venice.

In both cases ENAC has been allowed to actively participate in the audits, asking questions to the air carrier, in a climate of great cooperation with the competent Authority.

Additionally, a meeting with CAA-UK has been organised in Rome to discuss the air carriers oversight, in the scope of a British initiative on cooperative oversight aimed at sharing information obtained through the reports of the Italian air carriers on problems occurred during flight operations in the British airspace and vice versa.

The activity of analysis of the inconveniences reported to ENAC and started in 2017, starts to produce some data. All the inconveniences of the operators based in Italy or involved in public service obligation routes are analysed. In the following diagram, it is possible to notice the reported inconveniences difference between 2017 and 2019 for each monitored operator. Noteworthy is that only the inconveniences that may be attributed to the operators are considered. Weather events, laser ray, in flight and ground fauna impacts, medical events, ground handling events that can be attributed to the counterpart, under-separation following instructions from ATC, included ACAS, are not considered.

Incidence of events every 1,000 landings in Italy



During 2019, the incidence of the reports involving the major air carriers decreased and the opposite trend has been recorded with regard to minor air carriers that, however, have a lower data quantity and, therefore, they are statistically less significant.

The events reported to ENAC are those that have an impact on the flight operativity and these are mainly related to on board systems breakdown, to ATC instructions not correctly attended and to inconveniences about the aircraft ground handling.

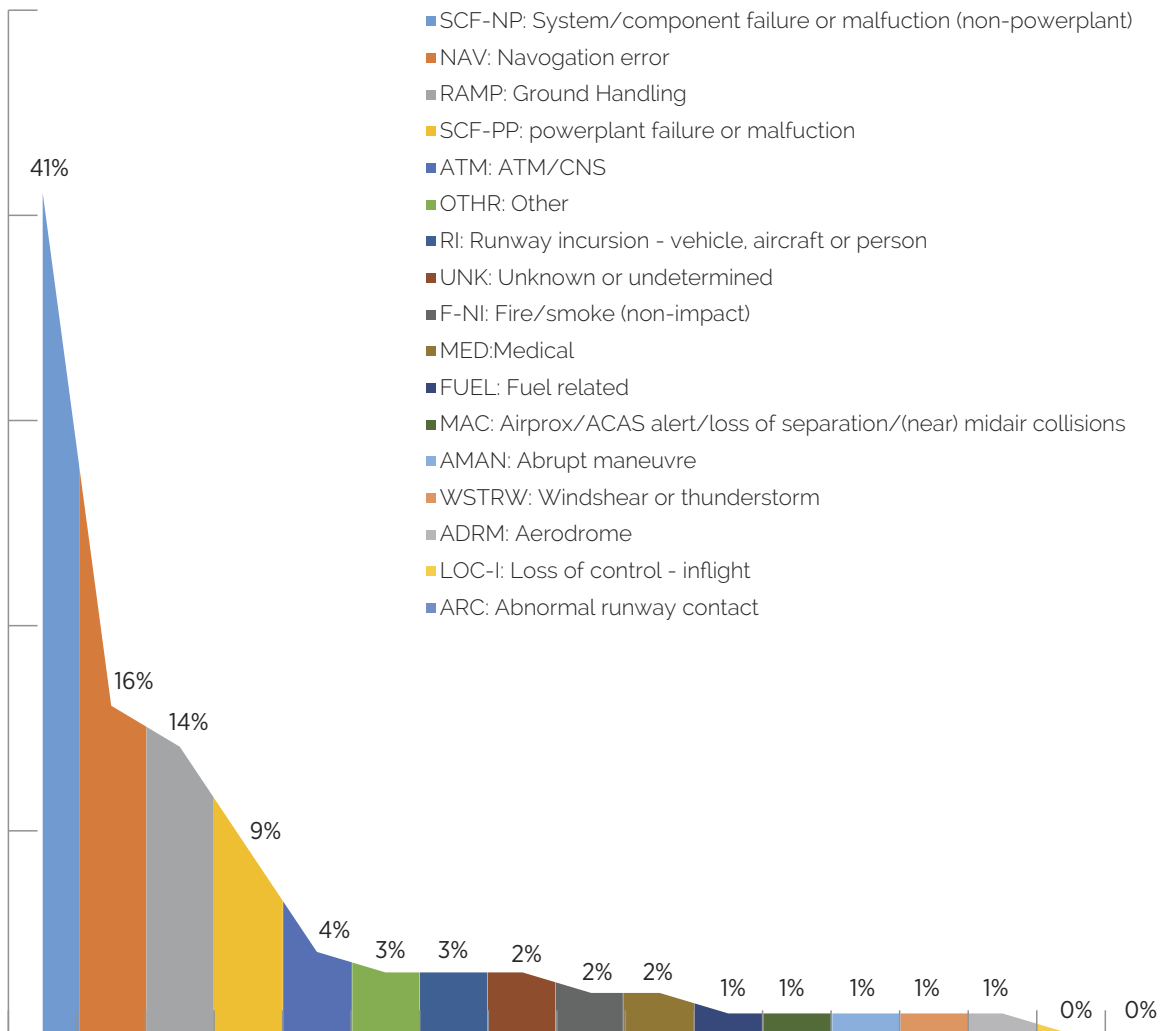
The following graph shows the events percentage breakdown, complete for all the monitored air carriers.

which represents a sort of a benchmark to evaluate the performances of every single air carrier.

The graph includes the 732 reports received in 2017 and 2018 regarding 7 air carriers (only 5 air carriers in 2017).

From the analysis of the 394 reports of 2019, it appears that 14% of those are incidents related to handling operations that, in the Italian airports, are carried out by national and multinational companies still ascribable to the system of the national handlers. The data is comparable to the one of the previous years, as it is the data of the two most frequent reports (failures not involving the engines and navigation mistakes). On the contrary, the failures related to engines have increased from 6% to 9%.

2019 Events classification - Global



### **Meetings with air carriers - Project for Air Carriers Operational Monitoring**

The meetings with the operators in 2019 have been aimed at planning and developing an innovative database for the air carriers performances monitoring in the implementation of their seasonal planning with a minimum level of disruptions. ENAC introduced the initiative to 7 Italian passengers air carriers and 5 foreigner passengers air carriers located in Italy during two meetings (November 2018 and March 2019), before starting the specific bilateral meetings between the ENAC team and each air carrier. Ryanair has been the only one that decided not to join the project. Over the year the ENAC team worked to define the database specifications, collect the data from each air carrier in order to study the output of their computer systems and set up the database. In December the database has been used to collect the data of the winter planning of all the air carriers participating in the project and to test the system in preparation for the 2020 summer season.

### **Coordination activities with the European Authorities for cross-border commercial SPO**

In 2019, the activity has continued with the evaluation of standard procedures and risk analysis of 8 new air carriers coming from Austria, Slovakia, Belgium, France and Spain. Furthermore, the yearly periods of activity of six air carriers, already approved in the previous years by Swiss, Poland and Germany, have been extended. The validity extension is a strategy used by ENAC to maintain the control over the update of the documentation in possession of ENAC and the effective activity carried out by the foreigner air carrier on the Italian territory in order to properly assess its risk profile.

### **Other activities of Cooperative Oversight**

ENAC is also committed to answer the requests coming from abroad concerning the aircraft registered in Italy. This

activity is realised through the analysis and memorisation of the ARC issued by foreign CAMO on Italian aircraft, the approval of the maintenance programmes or the direct emission of ARC upon recommendation.

In 2019, 4 Maintenance Programmes of light aircraft managed by the CAMO of Germany, Belgium and Greece have been approved. For two of them it been required ACAM inspections to the Authorities of Romania and Greece, since the aircraft were located in those Countries; the inspections have been carried out during the year and the outcomes have been promptly sent to ENAC, opening in this way an important precedent in the cooperation between EASA States in the scope of airworthiness.

### **Future evolutions**

The regulatory references for the foreign air carriers oversight are actually limited to the chapter ARO.RAMP of the Reg. (EU) no. 965/2012 and generic cooperation expectation between the European States for the efficient implementation of the principles included in the Basic Regulation 1139/2018 and its implementation rules. The enactment of an oversight system on foreign air carriers that is not limited to ramp inspections represents therefore an innovative and experimental activity.

ENAC is committed to find sustainable answers to the public opinion request, in a market that is strongly open to foreign entrepreneurial initiatives.

The ongoing process of collaboration with the Authorities of Ireland, Spain, United Kingdom, Romania and Lithuania shall continue and reach an even greater involvement of ENAC in the oversight activities.

In the contemporary vision of a decisional process connected with the availability of data that address the choices, a prompt data collection and analysis related to the operations that took place in Italy, cannot be ignored. These are the traditional data regarding accidents and incidents, but also the operations regularity that may impact on safety due to situations of considerable economic loss or psychological pressure in order to keep

# PERSONNEL CERTIFICATIONS

## Flight crew

The conversion and substitution process of flight personnel licences, certifications and authorizations continued in 2019 in accordance with the EU regulations and more specifically in application of Regulation (EU) no. 1178/2011 and subsequent amendments.

Over the year, 2,496 licences have been issued in total, with a 40% increase compared to the licences issued in 2018. The table shows the number of licences, divided by typology, aircraft category and reference regulations (Part FCL, JAR, National).

Licence	REG	Issued in 2019	In the database at 31 December 2019
ATPL (A)	EASA	133	4,484
	JAR	0	543
	NAZ	0	857
ATPL (H)	EASA	21	556
	JAR	0	51
	NAZ	0	59
CPL (A)	EASA	327	2,278
	JAR	0	483
	NAZ	0	970
MPL	EASA	18	60
CPL (H)	EASA	47	1,054
	JAR	0	85
	NAZ	0	780
PPL (A)	EASA	638	7,413
	JAR	0	1,685
	NAZ	0	3,643
PPL (H)	EASA	60	670
	JAR	0	271
	NAZ	0	515
SPL	EASA	944	1,251
BPL	EASA	52	82
LAPL	EASA	6	18
GL	NAZ	57	3,319
CCA	EASA	193	6,748
<b>Total</b>		<b>2,496</b>	<b>37,875</b>

### Legend

**ATPL:** Airline transport pilot licence;

**GL:** Glider pilot licence;

**A:** Aircraft;

**H:** Helicopter;

**CPL:** Commercial pilot licence;

**PPL:** Private pilot licence;

**CCA:** Cabin crew attestation;

**LAPL:** Light aircraft pilot licence;

**MPL:** multi-crew pilot licence;

**SPL:** sailplane pilot licence (on the basis of the Reg. EU no. 1178/2011, it replaces the previous **GL** national licence);

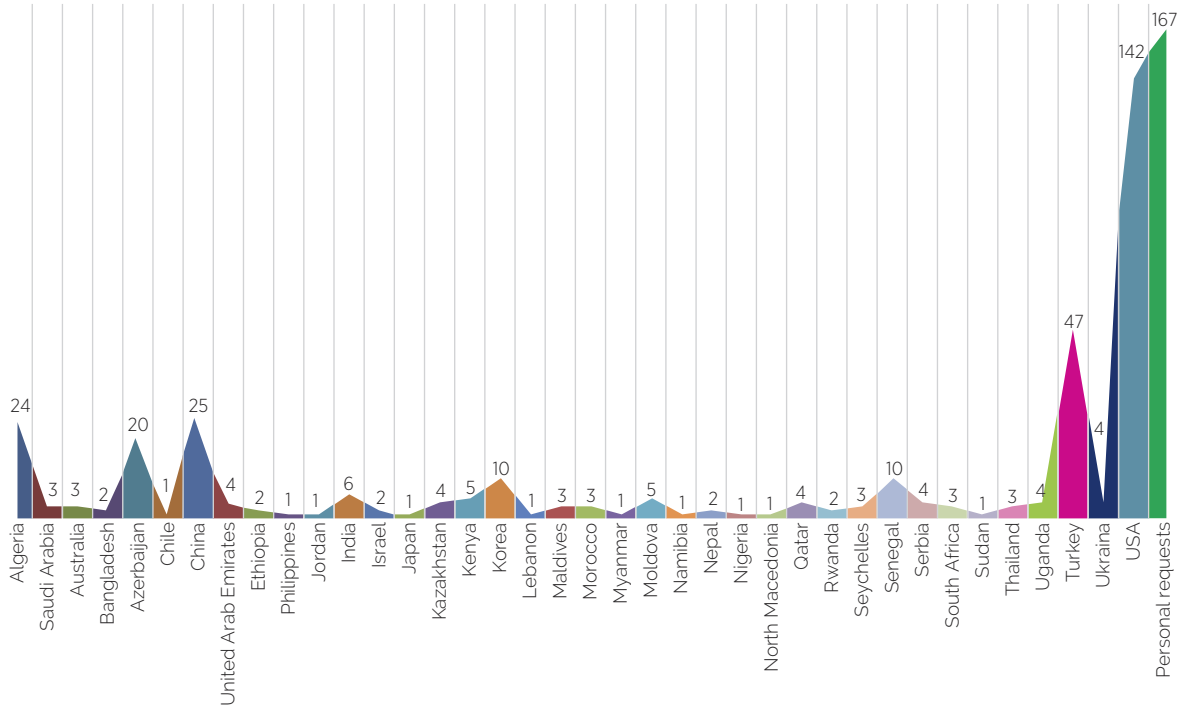
**BPL:** balloon pilot licence.

## Sheet 2.4 Personnel certifications

**Licence Verification**

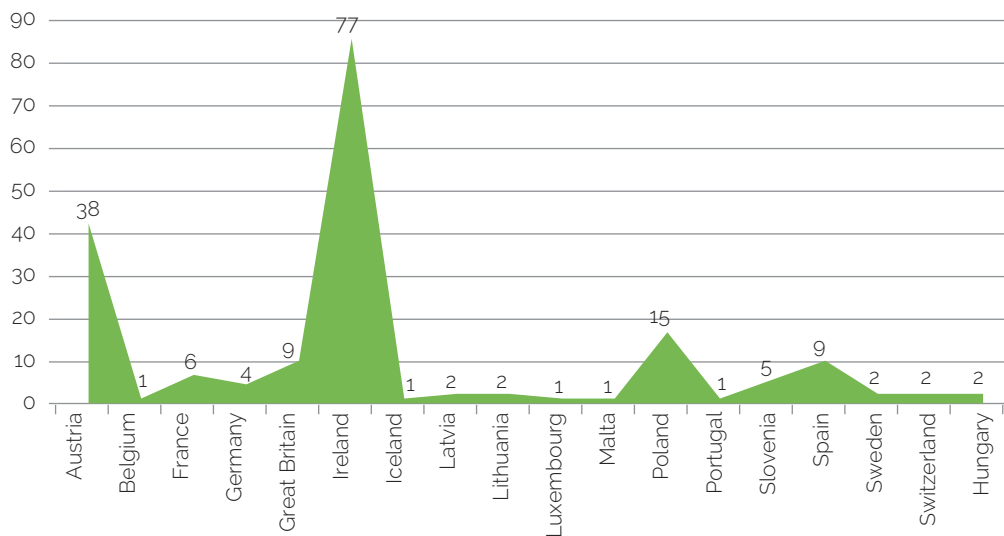
In the procedure of licence verification, 526 Authentication and Verification Certificates have been issued. These aeronautic titles, regarding pilots holding licences issued

by Italy and employed in non-EU air carriers, were verified following the requests coming from foreign Authorities. The data in the diagram below are expressed in relation to the percentage of the involved States.

**Licences verification activities upon Non-EASA Countries requests**

Additionally, in the context of the agreements with other EASA Aeronautical Authorities, 178 certificates to transfer the release Country of the aircraft and helicopters licences

have been released. In the following graph, the data are reported in relation to the percentage of the involved Countries.

**Attestation for the State transfer of the aeronautic licences in EASA context**

## STANDARDISATION FOR THE ISSUANCE OF THE CERTIFICATION TRE/SFE AND CRE; REFRESH SEMINAR FOR THE RENEWAL/RESTORE OF THE CERTIFICATION TRE/SFE AND CRE

In 2019, 64 training days have been delivered to update the instructors pilots and/or examiners.

Moreover, the following have been issued:

- 136 certification of ATPL/CPL/IR theory exams
- 600 examiners certifications
- 650 instructors licences (TRI/FI/CRI/SFI)
- 9 regulatory exemptions.

Over the year, in Rome's and Milan's ENAC offices, 17 theory exams sessions for licences ATPL/CPL and instrument licence for aircraft and helicopter took place, with a daily average participation of 50 candidates per session (5 test days each session), with peaks of 80 candidates in Rome's Headquarters, reaching an overall number of 250 average participations per session. Many of those were planned with exams in both morning and afternoon, increasing the number in fact.

In the territorial structures and with the support of the Directorate General and a Flight Inspector, 29 theory exam sessions to get not professional licences of aircraft, helicopter and glider took place, with an average participation of 30 people per session, with peaks of 120 people for instance in Milan Malpensa, reaching the overall of over 1,500 candidates per year.

The appropriate modifications to the examination system have been prepared so that the database would be implemented in accordance with the EASA ECQB6 modality at the beginning of 2020.

With a view to standardising and homogenising the management of the theoretical knowledge examinations, the study aimed at starting the computer-based procedure to achieve the non-professional pilot certifications for airplane, helicopter, glider and balloon has continued, taking into consideration that until today they were manually managed.

In the context of the replacement process of glider licence from the national to the EASA level, started in 2018, 944 licences have been issued in digital format. Moreover, the function of the online procedures website related to the initial issuance of the glider licences has been activated.

With the regard to the parachuting sector, under the Ministerial Decree 467/92, the ENAC Regulation "Issuance and renewal of Parachuting Licences", issued on 24/06/2013, modified by the Regulation "Parachuting Licences" ed. II of 26/10/2015, two examination sessions for the achievement of the certification of Parachuting Instructors have been carried out in Airports Depts. with the support or the Directorate General and the employment of a Flight Inspector in 2019.

In this context, 2 policy documents of Parachuting School have been issued and 7 have been renewed.

4 disciplinary proceedings have been started towards pilots due to violation of the rules on navigation safety and 2 sanctions have been imposed.

In implementation of the ENAC Regulation "Remotely piloted aerial vehicles", 16 certifications of RPA examiners have been issued.

### "Albi" and Register of Flight Personnel

The aircrews of national aircraft must be made up of people registered in the "Albi" or Register.

ENAC is in charge of the maintenance, management and update of the "Albi" and Register of Flight Personnel. It determines enrolment requirements according to Italian Air Navigation Code and ENAC Regulations on the matter.

The pursuance of professional activity for both Italian and foreign aircrews is allowed only after the registration that can be done subject to licences, certificates and authorisations ownership.

The flight crew includes three categories with relevant professional titles (art. 732 Italian Air Navigation Code): commander, pilot, test driver, instructor; flight technician, flight technician for testing; flight attendant. Some 12,000 members are registered in the "Albi" and Register.

The 2019 has been a positive year for the development of air transport. This tendency is reflected also in the data included in the following tab: in fact, over the year, the registrations of pilots and flight attendant have increased of 42.38% compared to the previous year.

ACTIVITY	2017	2018	2019
Enrolment in the Pilots List (Albo)	166	185	199
Enrolment of Flight Technicians	-	-	1
Enrolment of Flight Attendants	182	301	493
Enrolment extracts from the "Albi" and the Register	391	535	728
Appointments to aircraft and helicopter captains	100	93	117
Suspension of registration in the "Albi" and Registry for interruption of professional activity	127	91	75
Revocations of suspensions at the "Albi" and the Register for the resumption of professional activity	44	27	42
Deletion from the "Albi" and Register	314	1.432	70

### Technical maintenance personnel

The personnel authorised to issue the certificate of readmission to service (CRS) after maintenance on aircraft and helicopters must be qualified and in possession of the Aircraft Maintenance License - AML with a list of the related rating and limitations.

established a procedure to distribute ATCL licences to Air Traffic Controllers in service at Certified Service Providers via email through a dedicated Platform, in real time. This system, which is unique in Europe, is part of a broader project launched in 2012 that allows ENAC to stay on the cutting edge of the field, by replacing/updating ATC licenses in a very short time and at no additional cost.

#### 2019 ACTIVITIES

- 107 Aircraft Maintenance Licenses issued and 265 renewed.
- 63 National Certificate for Certifying Staff maintenance personnel released and 79 renewed.

### Air Traffic Controller and FIS Operator

In 2019, ENAC issued, modified, and updated licences for ATCL controllers, SATCL student controllers and flight information service operators (FIS). This activity involved the licences themselves and their use by ANSPs (Air Navigation Services Providers).

In 2019, ENAC issued:

- 36 ATCL releases,
- 14 releases for Student (SATCL);
- 61 FISO releases;
- 1,773 updates ATCL.

The ATCL and SATCL licences have been issued by ENAC in electronic form and with a digital signature. ENAC also

### Aero-medical certification

ENAC guarantees the oversight of the aero-medical functions through the Aeromedical Section (AMS), contributing to ensure the application and maintenance of the best safety standards, as recommended in the civil aviation sector.

The AMS is committed to the oversight function through:

- the execution of a continuous auditing activity;
- the control on the medical certifications issued to personnel holding an aviation licence issued by ENAC;
- the monitoring and sample testing of the medical reports and clinical documentation sent by the Italian and foreign Aero-medical Examiners.

In 2019, 45 direct inspections and documental audits have been carried out on doctors (Aeromedical Examiner - AME) and Aero-medical Centres (AeMC) certified by ENAC to execute medical check-ups and issue the medical reports 1/2/3/LAPL CLASS as well as the Cabin Crew Medical Reports. During 2019, the AME certified by ENAC amounts to 148 and the AeMC to 3.

**37** are the concluded appeal proceedings against the clinical judgement as of 31 December 2019.

If required, the AMS, in line with the rules and following the principles of proportionality and adequacy, decides on the execution of additional medical check-ups, in-flight medical tests for flight personnel and operational environment tests for Air Traffic Controllers and Flight Information Service Officers. At same time the AMS is in

charge of deciding on the certification suspension or application of the limitations to be implemented if required by an AME or an AeMC.

Aiming at an optimal oversight management, ENAC also implemented an intense training programme for the certified health bodies. 8 training sessions for 80 AME in order to extend as much as possible the use of the EMPIC-EAP® - Modulo MED - software to the involved target. It is shared platform in which all the aero-medical checks carried out by ENAC certified AME in Italy and abroad converge.

### TRAINING ACTIVITY

Also, in 2019, the updating and training activity for third parties has been a relevant task for the aero-medical section with 18 total days of training.

The mentioned section actively participated in the training modules of:

- the Basic Course in Aeronautic and Spatial Medicine organised by the "Istituto di Perfezionamento e Addestramento in Medicina Aeronautica e Spaziale dell'Aeronautica Militare (IPAMAS)";
- the Course in Aeronautic and Spatial Medicine organised by the Padua University;
- Advanced Training Course organised by the "Centro Studi Trasporto Aereo Sicurezza e Ambiente" on the topic "Human Factor and safety in complex organisations".

With regard to the regulatory activity, over the second semester of 2019 a regulatory revision programme involving the ENAC Advisory Circular MED-01 took place, following the revision of the Medical Regulation, updated in 2018. The text of the Advisory Circular has been updated to the new regulatory framework for the aspects regarding the

measures that need to be implemented by the air carriers to promote the access of flight personnel and air traffic controllers to the "Supporting Programmes", identified as risk mitigation measure of the events related to the decrease of the psychological well-being and mental health of the aviation personnel.

### SUPPORTING PROGRAMMES

The attention given to the flight crew's mental health protection has been partially finalised in the provisions of the Reg. (EU) no. 2018/1042 on the implementation of the supporting programmes. Through a constant dialogue with the stakeholders (public institutions, trade associations, social players, etc.), ENAC intended to make a good use of the experience of the organisations that have already experimented the supporting programmes.

With the publication of the Information Note ENAC NI-2020-02, it was intended to clarify the areas of application that affect different aviation domains, the principles behind the system and the more involved roles.

An analysis has been conducted on the new necessary competences as well as on the consequent training and specific activities for the different professionals. To that end, a fundamental step is the creation of the professional figure of Aviation Psychologist, thanks to a consultation channel with the Consiglio Nazionale dell'Ordine degli Psicologi - CNOP (National Council of the Italian Psychologists). This allowed the joint recognition of the specific role in compliance with the professional and curricular requirements needed to recognise the Aviation Psychologist (CNOP Deliberation of 22 November 2019).

The creation of the above-mentioned profile is an important contribution to flight safety, ensuring knowledge sharing and practise standardisation for the benefit of safety and the well-being of the civil aviation personnel.

This objective shall be supported by an appropriate training and a constant update of the involved professionals that are required to operate in the complex aviation field. For this reason, ENAC, in the role of process owner of this specific topic, has also started during the year training initiatives in the academic field.



## INSPECTION AUDITS BY INTERNATIONAL BODIES

ENAC ensures the actions aimed at implementing the required actions in order to deal with the ICAO and EASA standardisation visits and the continued validity of the EASA accreditations in the areas of competence.

### **EASA standardisation inspections and accreditation visits**

The purpose of these inspections is to monitor the application of common requirements and reporting results to the European Commission. The implementation procedures are contained in Reg. (EU) no. 628/2013. Currently the standardisation inspections are conducted by EASA in the following domains: airworthiness, aircrew licences, aviation medicine, flight operations (including the RAMP domain), management of air traffic/air navigation services, flight simulators, aerodromes and the SYS (Systemic Enablers for Safety Management) domain.

Over 2019, EASA conducted 4 standardisation inspections in the following domains: flight operations, air crew licences, aviation medicine, aerodromes. With regard to the domain of flight operations, the focused inspection, carried out in October, covered the rotor-wing sector which is the most critical one in the European programmes for both the Commercial Air Transport and the Specialised Operations areas, including the cross-border operations as well (2 helicopter operators have been inspected).

The positive inspection outcome confirmed the considerable commitment of ENAC aimed at reorganising the sector and it highlighted some improvement areas regarding the efficacy of the oversight activities. Besides the verification of the adequacy of the certification and oversight activities, the EASA team conducted verifications, with positive outcome, on the implementation of the corrective action Plan that followed the standardisation inspection of 2017. Among these, the public selection procedure for permanently hiring new flight inspectors for both the rotor-wing and fixed-wing is particularly important. The inspections on flight licences and aviation medicine have been conducted in tandem in November 2019 and have regarded the compliance with the pertinent requirements of the Basic Regulation (EU) no. 2018/1139 and Regulation (EU) no. 1178/2011. The inspection on flight licences domain was comprehensive because it aimed at verifying the compliance with all the applicable requirements, the inspection on aviation medicine domain was focused since it involved only the medical certification

of the air crews. During these inspections, in order to acquire additional elements on the efficacy and adequacy of the ENAC oversight system, some aviation training organisations (ATO) and aero-medical centres have been visited. The outcome of the 2 visits was positive and it highlighted a considerable improvement compared to previous inspections.

Moreover, during the flight licences domain inspection, EASA introduced for the first time in Italy a conversation on risk awareness which is the risk identification and management system at national level. Even though it was just a fact-finding meeting during this first phase of implementation, the outcome showed that ENAC has developed a good system of risk areas identification and mitigation actions management through the ENAC Safety Plan, taking as a reference the European Plan for Aviation Safety.

Lastly in December, it was conducted the first standardisation inspection in the aerodromes domain. The comprehensive inspection was aimed at evaluating the capacity of the competent Authority to exercise the oversight responsibilities regarding safety, through verifications on the compliance with the requirements included in the Basic Regulation (EU) no. 2018/1139, Regulation (EU) no. 139/2014 and the so-called SERA Regulation (EU) no. 923/2012.

The managing bodies of the airports of Rome Fiumicino and Naples have been visited during the inspection and the personnel of the National Fire Brigades and ENAV has been interviewed. At the end of the inspection, despite detecting some areas of improvements, the EASA team expressed appreciation for the efficacy and quality level of the ENAC management and oversight system, confirming the high professionalism and commitment of the staff and a good level of collaboration and coordination between the different ENAC departments.

In addition to the above-mentioned inspections, ENAC carried out follow-up activities aimed at closing the findings detected in previous inspections. In particular in December 2019, ENAC provided, within the deadline, the necessary evidences related to the completion of the Corrective Actions Plan agreed with EASA as outcome of the Standardisation inspection on the airworthiness domain received in September 2017 that involved ENAC and several aviation organisations in Lazio, Lombardia, Piemonte and Sardinia.

### **Inspection in the TCCA Sampling Inspection System (SIS) context in the EU Countries**

In February 2019, ENAC received the inspection of a team of the TCCA (Transport Canada Civil Aviation) aimed at verifying the adequacy of the certification and oversight activities carried out by ENAC on the Italian maintenance organisations, approved, under the European Regulation (EU) no. 1321/2014, Annex II (Part 145), to operate by TCCA

### Sheet 2.4 Inspection audits by international bodies

following the CAR 573 and in accordance with the procedures included in the bilateral agreement between EU and Canada.

The inspection involved the ENAC pertinent departments and two aviation organisations located in Lazio Region. The inspection outcome confirmed the high level of standard ensured by ENAC in carrying out the above-mentioned activities.

3

# SECURITY

Sheet 3.1

91

Security regulation



# SECURITY REGULATION

## SECURITY

The Security consists in the prevention activity for safeguarding the integrity of the civil aviation from potential and intentional acts of unlawful interference. The preventive protection is achieved through the combination of security measures with the deployment of human resources adequately trained and systems for the detections of prohibited articles and explosive substances.

In the international regulatory framework, the acts of unlawful interference are defined as all those actions that compromise the security of the civil aviation, such as:

- acts of violence against people on-board the aircraft, which may jeopardise their security during the flight;
- introduction into an aircraft of objects and substances that may destroy or cause serious damages and make the aircraft itself in no condition to fly or seriously jeopardise its flight safety;
- unlawful and intentional use of any mean, substance or weapon through which it is possible to:
  - a. commit violent acts against the people present in the airport, which may result in serious injuries;
  - b. destroy or seriously damage the airport infrastructures or aircraft or interfere with the execution of airport activities.

The activity aimed at harmonising the national legislation on security with the constantly changing European provisions has continued over 2019.

For this purpose, the review of the Italian National Programme for the Civil Aviation Security is underway. It needs to be updated to the recent provisions of the European Commission (Implementing Regulation (EU) of 23 January 2019, no. 103, of 14 March 2019, no. 413, of 25 September 2019, no. 1583) that modified the Basic Regulation (EU) no. 2015/1998 and the Decision of 23 January 2019, no. 132 that modifies the Decision C(2015)8005 of the Commission.

In particular, the significant change in the regulation related to the background check of the subjects that operate in the airport context, has made a discussion with the involved Administrations and the operators of the airport field necessary in order to examine the new regulation and identify a shared implementation procedure.

A study has also been started to introduce into the Italian commercial airports the use of Explosive Detection Dogs (EDD) for the screening of goods and mail. Actually, it has been noted that, in the cargo field, the EDD teams are able to carry out the goods screening faster than any other technological device, ensuring at the same time a high level of reliability as they are able to detect a wide variety of explosives, causing a low percentage of false alarms.

Following the favourable opinion expressed by the Interministerial Board for the Security of Air Transportation and Airports on the 26<sup>th</sup> of June 2019, the new text of the Italian National Programme for the Quality Control, Edition 4 - 26 June 2019, has been approved with the provision of the ENAC Director General of 4 July 2019, on completion of the review process started in 2018.

The Advisory Circular ENAC SEC-09 of 8 November 2016 that, in accordance with the EU regulation, disciplines the role of the Civil Aviation Security Validators, has been enforced through the appointment of a committee asked to select the professional figure of the security validator of the EU Civil Aviation for the macro-area B - in-flight supplies and the supplies for the airport coming from known service providers.

Over 2019, following the conclusion of the selection procedures, 18 validators have been selected. Taking into consideration the market needs which highlighted the shortage of the professional figures necessary to train security staff, in accordance with the Advisory Circular ENAC SEC-01A/2017 on certification of security trainers, it has been designed a commission in charge of evaluating the applications and carrying out the examinations. The Commission examined 12 applicants as security trainer during the year.

### Airports' Security Equipment

The provision of the ENAC Director General of 17 September 2019 established that, with the aim of simplification, the security equipment tested, favourably evaluated by the authorised test centres and published on the ECAC website (CEP NEWS <http://www.ecac-ceac.org/cep>), are approved for airport use in Italy without further formalities and therefore they are suitable to be used in the Italian airports for carrying out the required security checks.

The X-ray equipment are still required to pass the compliance checks of the Experts Committee included in the article 6 of the decree of the Ministry of Infrastructure

and Transport of 29 January 1999, no. 85 and subsequent amendments and additions.

On ENAC website are available the lists of the compliant security equipment that can be used for airports security checks. The equipment must comply with the requirements set forth in chapter 12 of Reg. (EU) 2015/1998 and Decision 2015/8005 and subsequent amendments and additions.

The lists include:

- X-ray equipment
- EDS, ETD, SSc, MDE, EDSCB equipment
- LEDES (Liquids, aerosols and gels) Safety devices

#### TYPE OF DEVICE

- EDS - Explosive Detection Systems
- ETD - Explosive Trace Detection device
- SSc - Security Scanner
- MDE - Metal Detection Equipment
- EDSCB - Explosive Detection Systems for Cabin Baggage
- LEDES - Liquid Explosive Detection Systems

### Notifications

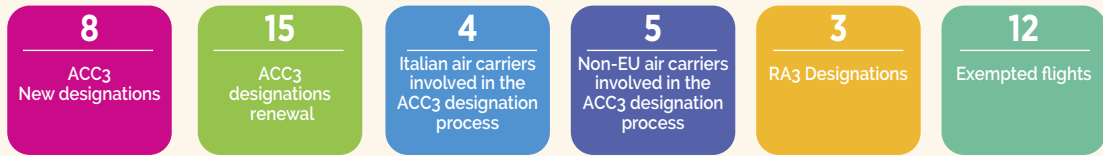
To ensure the continuous monitoring of security procedures and measures enforced in domestic airports and the timely implementation of compensatory measures in case of deficiencies, ENAC has set up a reporting system for security related issues. The passengers, airline operators, stakeholders involved in the air transport of passengers, mail and cargo, and ordinary citizens, can report, via e-mail, security issues encountered in domestic airports (in terms of prevention of acts of unlawful interference against civil aviation). Some reports are transmitted by the online form available in the Passengers section of ENAC website.

Each report is managed at central level, if possible, or by the competent Airport Dept. that informs the involved operators (airport managing body, air carrier, handler). The replies are forwarded to the subject that transmitted the report. All the reports are confidential.

The system prevision is aimed also at sensitising and spreading the culture of security among passengers and all the subjects that spend time in the airports, highlighting the necessity of collaboration by reporting all the suspect episodes.

**SECURITY PROCEDURES FOR FREIGHT AND MAIL SHIPPED TO EU FROM THIRD COUNTRIES (ACC3 AND RA3)**

**2019 Activity**



**ACC3** - Air cargo and mail carrier operating into the Union from a Third Country.  
**RA3** - Third Countries Regulated Agent.

The above-mentioned data are referred to the air carriers controlled by Italy, including some non-EU operators assigned to the Country under the Reg. (EC) no. 748/2009 and subsequent amendments and additions, besides the Italian national air carriers.

It should be noted that, the entire activity registered a sharp increase compared to 2018 due to the higher number of non-EU airports from which the air carriers controlled by Italy load goods to the European Union. With regard to the flights that have been exempted by the ACC3 obligations, both on the basis of the EU regulation and as a consequence of a risk analysis, the number of it has slightly decreased. This is also determined by the expansion of the ACC activity process in the entire Europe: the involved air carriers and the airports from where the flights arrive, have entered on a permanent basis in the "EU supply chain security" for ACC3/RA3/KC3.

**REGULATED AGENTS**

Certifications Issuance/Renewal	no. 52
Revocations	no. 10

**KNOWN CONSIGNORS**

Certifications Issuance/Renewal	no. 14
Revocations	no. 7

**REGULATED SUPPLIERS**

Certifications Issuance	no. 10
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**NATIONAL AVIATION SECURITY QUALITY CONTROL TEAM**

The National Aviation Security Quality Control Team has been created to carry out the quality control and monitoring activity aimed at verifying the compliance of the security measures applied in the Italian airports open to civil traffic with the measures included in the European regulation.



As compared with the activity planned at the beginning of the year, there has been an increase due to the need of carrying out follow-ups on the completed inspections as well as specific investigations aimed at describing in detail the motivation of non-application of some security measures and starting the final inspection process, under the National Programme for the Quality Control.

The provisions of the Italian National Programme for the Quality Control and Reg. (EU) no.18/2010 on the modality and frequency of the activities carried out by the National Aviation Security Quality Control Team have been implemented. The 2019 activities regarded 25 Italian airports and some 740 man-days have been employed.

Some 326 cover tests and 162 open tests have been carried out respectively in the attempt to introduce prohibited items in the security restricted area and to verify the security officers' ability to identify prohibited items contained in the hand baggage through the use of Xray systems. Over the inspections executed in 2019, the essential information on the characteristics related to Aviation Security have been collected in the specific "Airport Sheet", continuing the data collection activity started in 2018. These sheets include the essential data of each airport inspection. The National Aviation Security Quality Control Team activity joins the one of the security airport inspectors that locally carry out the inspections on an annual programme.



# 4

## AIRPORTS

Sheet 4.1

95

**Planning and development  
of infrastructural interventions**

Sheet 4.2

110

**Community funding for  
airport infrastructures**



## PLANNING AND DEVELOPMENT OF INFRASTRUCTURAL INTERVENTIONS

In 2019, ENAC continued the relevant processes aimed at equipping all the national airports with a plan of the construction works needed to ensure the airport capacity related to the forecast of traffic growth.

On one hand, from the development plans point of view, the 2019 represented a year with a limited number of investigations on new Master plans since the main activities have been aimed at facing the conclusion of the probative procedure of the urbanistic and environmental compatibilities (also due to some appeals). On the other hand, the renewal phase of the Planning Agreements required a considerable effort since, for almost all the airports, the first four-year period ended in 2018, after the approval of the new tariff models of the Regulatory Authority of Transport.

### Master Plans (Airport development plans)

Airport managing bodies have the contractual obligation to present and draft the Master Plans which are aimed at meeting and maintaining the required levels of safety and service quality. At the same time, the Master Plans are the tools that identify the main characteristics of the updating and enhancing interventions, taking into consideration the development processes of the airport, infrastructures,

accessibility conditions and local requirements.

The Master Plan approval process, regulated by the National Law no. 351/95, provides that, after the ENAC technical approval, they are submitted to the Environmental Impact Assessment procedures at Ministry for the Environment and the Protection of Territory and Sea and to the urban compliance plan at Ministry of Infrastructure and Transport. To this day, almost all the Italian airports have a Master Plan, technically approved by ENAC, whose environmental and urban procedures are ongoing.

With this regard, there has been a further slowdown in the execution of the environmental procedures, also due to the appeals that often have been filed by local subjects against the dispositions issued by the competent Authorities, in single or aggregate form. In the face of this dissent, the wish is that the procedures of public debate, mandatory for the airport development plans after the entry into force of the Prime Ministerial Decree no. 76/2018, may help to evaluate the development scenario with a higher consensus coming from local subjects and stakeholders in the broad sense, before the approval of the Master Plan. The following tables show a list of Master Plans by airport, year and cost updated as at 31 December 2019.

Master Plans with urbanistic assessment closed - iter completed as at 31.12.2019

Airport	Airport managing body	Plan / Project	Cost construction works (Million EUR)
Bologna	Aeroporto Guglielmo Marconi di Bologna SpA	Master Plan 2030	333.0
Bergamo*	SACBO SpA	Master Plan 2015	187.5
Bolzano	ADB SpA	Master Plan 2020	25.8
Cagliari	So.G.Aer. SpA	Master Plan 2024	93.9
Catania*	SAC SpA	Master Plan 2015	219.0
Genova	A.d.G. SpA	Master Plan 2027	108.4
Rome Fiumicino Sud	ADR SpA	Master Plan 2020	1,658.5
Pescara	SAGA SpA	Master Plan al 2020	33.5
Lamezia Terme	SACAL SpA	Master Plan 2027	195.5
Pisa	TOSCANA AEROPORTI SpA	Master Plan 2028	260.0
Turin	S.A.G.A.T. SpA	Master Plan 2015	47.4
Venice	SAVE SpA	Master Plan 2021	630.0

\*New Master Plan under Environmental Impact Assessment procedure



## Master Plans with urbanistic assessment closed - iter completed as at 31.12.2019

Airport	Airport managing body	Plan / Project	Cost construction works (Million EUR)
Florence	TOSCANA AEROPORTI SpA	Master Plan 2029	337.0
Foggia	Aeroporti di Puglia SpA	Infrastructure and operational upgrading Extension of the runway RWY 15/33	14.0
Salerno	Aeroporto di Salerno SpA	Master Plan 2025	39.8
Verona	Aeroporto Valerio Catullo SpA	Master Plan 2030	134.0
Olbia	GE.A.SAR. SpA	Upgrading works of flight infrastructures	29.5
Palermo	GE.S.A.P. SpA	Terminal Areas	60.0

## Master Plans with ongoing urban conformity procedure as at 31.12.2019

Airport	Airport managing body	Plan / Project	Cost construction works (Million EUR)
Bari	Aeroporti di Puglia SpA	Master Plan 2022	255.6
Olbia	GE.A.SAR. SpA	Master Plan 2020	114.0
Palermo	GE.S.A.P. SpA	Master Plan 2025	322.9
Taranto	Aeroporti di Puglia SpA	Master Plan 2025	55.1

## Master Plans with Environmental Impact Assessments measures issued as at 31.12.2019

Airport	Airport managing body	Plan / Project	Cost construction works (Million EUR)
Brindisi	Aeroporti di Puglia SpA	Infrastructure and operational upgrading project	256.6
Milan Linate	SEA SpA	Master Plan 2030	545.0

## Master Plans with ongoing Environmental Impact Assessments procedures as at 31.12.2019

Airport	Airport managing body	Plan / Project	Cost construction works (Million EUR)
Rome Ciampino	ADR SpA	Master Plan 2044	80.6
Treviso	AERTRE SpA	Master Plan 2030	53.2
Rome Fiumicino (medium term)	ADR SpA	Master Plan 2030	4,800.0
Brescia	Aeroporto Valerio Catullo SpA	Master Plan 2030	113.1
Bergamo	SACBO SpA	Master Plan 2030	435.2
Alghero	SOGEAAL SpA	Master Plan 2025	13.0
Parma	SO.GE.A.P. SpA	Master Plan 2023	20.8
Catania	SAC SpA	Master Plan 2030	599.29

## Master Plans with ENAC technical approval as at 31.12.2019

Airport	Airport managing body	Plan / Project	Cost construction works (Million EUR)
Milano Malpensa	SEA SpA	Master Plan 2035	2,451.0
Napoli	GE.S.A.C. SpA	Master Plan 2023	128.0
Trieste	Aeroporto Friuli Venezia Giulia SpA	Master Plan 2024	34.2

Master Plans under ongoing ENAC investigation as at 31.12.2019		
Airport	Airport managing body	Plan / Project
Brindisi	Aeroporti di Puglia SpA	Master Plan 2030
Trapani	Air.Gest. SpA	Master Plan 2025
Perugia	S.A.S.E. SpA	Infrastructure optimisation and management Plan 2033
Rimini	AlRimumum 2014 SpA	Master Plan 2030

Not submitted Master Plans as at 31.12.2019		
Airport	Airport managing body	Plan / Project
Ancona	Aerdorica SpA	Master Plan
Cuneo	GE.A.C. SpA	Master Plan

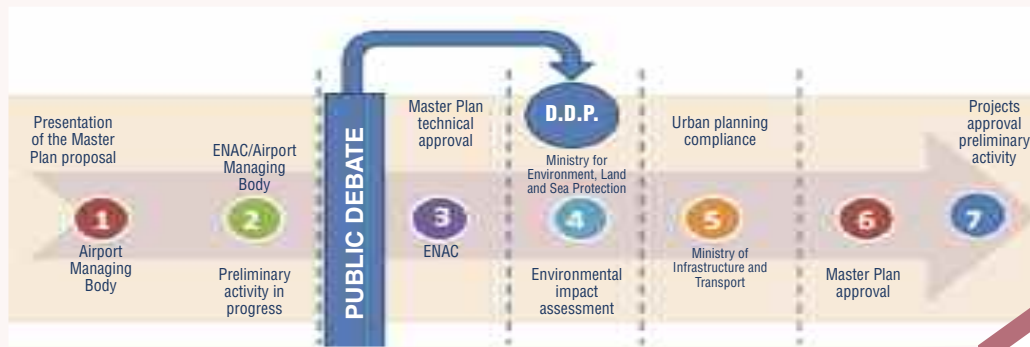
### THE PREPARATORY PUBLIC DEBATE FOR THE APPROVAL OF THE ENAC AIRPORT PLANNING

With the entry into force of the Decree of the Italian Prime Minister no. 76/2018 (implementing the art.22, provision 2 of the Legislative Decree no. 50/2016 and the Art.12 of the Legislative Decree no. 104/2017) which introduced the compulsoriness of the public debate procedures also for the airport construction works, the complex approval process of the national development plans has been innovated through the introduction of a phase of discussion with local authorities that is preparatory for the ENAC technical approval, the Environmental Impact Assessment procedures at Ministry for the Environment and the Protection of Territory and Sea and the urban compliance plan at Ministry of Infrastructure and Transport. Since 2015, ENAC has started an internal rulemaking process aimed at identifying the best practices about the active inclusion of stakeholders, as a measure to solve the procedural criticalities and to manage the disagreement, for the benefit of the authorisation procedures. In order to achieve that, ENAC trained its qualified staff on this topic and it promoted an experimentation regarding a participative process to be implemented in the phase preceding the approval of the Master Plan of an important national airport like the one of Bergamo, by involving the so-called essential stakeholders (Lombardia Region, Province of Bergamo, neighbouring municipalities).

The public debate procedure established by the Prime Ministerial Decree no. 76/2018 consists of informational, in-depth, discussion meetings and conflicts management, in particular in the territories which are directly involved, as well as of collection of proposals and opinions from citizens, associations and institutions.

Over 2019, ENAC conducted the preparatory meetings for the definition of at least two Master Plans that, in order to be technically approved and be allowed to start the Environmental Impact Assessment procedures, are required to activate and conduct the public debate under the Prime Ministerial Decree no. 76/2018.

With regard to the development scenarios of these two airports, as it will be done in future for all the others, ENAC established, together with the airport managing bodies, the contents of the documentation to be submitted during the debate and it analysed the requirements necessary for the selection process of the professionals with specific experience in the field who will be in charge of the organisation and conduction of the planned activities.



### The Four-year Intervention Plans at the core of the Planning Agreements

Over 2019, the airport managing bodies that subscribed with ENAC the Planning Agreement for the period 2015/2018 have been urged to submit the investment plans for the following four-year period 2019/2022; the same action has been executed towards the airport that, to the present date, have never subscribed a Planning Agreement.

The definition process of the investments during the new

four-year period has been sketched out through a series of meetings aimed at an ongoing investigation conducted with the managing bodies.

The technical means able to describe the time consistency and articulation of the infrastructural investments within the Planning Agreement is the Four-Year Plan of Intervention, including its attachments (sheets A, B and C).

The status overview of the four-year plans approval process is the following:

Four-year plans of intervention with approved documentation for the new four-year period as at 31.12.2019

Airport	Airport managing body	Regulatory period	Cost construction works (Million EUR)
Bari, Brindisi, Taranto, Foggia	Aeroporti di Puglia SpA	2019-2022	98.5
Bologna	Aeroporto Guglielmo Marconi di Bologna SpA	2020-2023	157.5
Bergamo	SACBO SpA	2017-2020	113.2
Cagliari	So.G.Aer. SpA	2020-2023	36.7
Catania	SAC SpA	2017-2020	95.2
Genova	A.d.G. SpA	2020-2023	37.1
Florence	TOSCANA AEROPORTI SpA	2019-2022	268.9
Pisa			92.8
Olbia	GE.A.SAR. SpA	2019-2022	128.7
Palermo	GE.S.A.P. SpA	2020-2023	85.5
Turin	S.A.G.A.T. SpA	2020-2023	45.3
Treviso	AerTre SpA	2019-2022	38.1
Trieste	Aeroporto Friuli Venezia Giulia SpA	2020-2023	29.6
Verona	Aeroporto Valerio Catullo SpA	2020-2023	103.5

Four-year plans of intervention with documentation under investigation or to be submitted for the new four-year period as at 31.12.2019

Airport	Airport managing body	Regulatory status	Cost construction works (Million EUR)
Alghero	SOGEAAL SpA	to be presented	-
Ancona	Aerdorica SpA	investigation phase	15.5
Brescia	Aeroporto Valerio Catullo SpA	to be presented	-
Cuneo	GE.A.C. SpA	to be presented	-
Lamezia Terme	SACAL SpA	investigation phase	20.9
Naples	GE.S.A.C. SpA	to be presented	-
Perugia	SASE SpA	to be presented	-
Rimini	AiRimum 2014 SpA	to be presented	-
Salerno*	GE.S.A.C. SpA	to be presented	-
Trapani	Air.Gest. SpA	to be presented	-

\* On the 24<sup>th</sup> of October 2019 the merger deed between GESAC SpA and Aeroporto di Salerno - Costa d'Amalfi SpA has been signed and its effective since 1<sup>st</sup> of November 2019.

Five-year Intervention Plans of Planning Agreements in derogation as at 31.12.2019			
Airport	Airport managing body	Sub-regulatory period	Cost construction works (Million EUR)
Rome Fiumicino	ADR SpA	2017-2021	1,866.9
Rome Ciampino			39.7
Milan Linate	SEA SpA	2016-2020	313.0
Milan Malpensa			266.0
Venice	SAVE SpA	2017-2021	533.5

## Environmental sustainability of airports

The Master Plan approval process, regulated by the National Law no. 351/95, provides that, after the ENAC technical approval, the Master Plans are submitted to the Environmental Impact Assessment procedures at Ministry for the Environment and the Protection of Territory and Sea and to the urban compliance plan at Ministry of Infrastructure and Transport.

To this day, almost all the Italian airports obtained a Decree or a Directorial Determination of environmental compatibility issued by the competent Ministries.

These provisions sanction the environmental compatibility of the airport infrastructures development subject to compliance with the regulations issued by the Ministry for the Environment and the Protection of Territory and Sea and the Ministry of Cultural Heritage and Tourism.

In the exercise of its mandate, ENAC is constantly committed to ensure the compliance with the above-mentioned provisions. With this regard, in 2019, several verifications have been conducted and they involved airports in the entire national territory.

In particular, some technical agreements have been signed with local administrations and the Regional Agencies for Environmental Protection in order to:

- monitor the environmental indicators in the phases of execution of the works and operation of the airport;
- ensure the realisation of the planned mitigation and compensation works.

The same attention for the aspects of airport environmental sustainability is given within another policy instrument evaluated by ENAC: the Planning Agreement.

In the context of the Planning Agreements, the Environmental Protection Plans are composed in accordance with the provisions of the Directive 2009/12/EC of the European Parliament and the Council. The Environmental Protection Plan is a planning tool which is aimed at determining a constant improvement of the airport ecological level which is performed through the

achievement of specific environmental indicators.

In 2019, ENAC approved several Environmental Protection Plans and almost all of them are at the second implementation since the airport managing bodies already have an available Planning Agreement. In the second implementation, ENAC required some more challenging indicators in order to uniform the level of the Italian airport network environmental performances and ensure a continuous improvement.

## Suborbital flights - Spaceport

Over the last years, a growing interest towards the activities related to space flights has been observed at international level. In this context, the Italian Government has intended to promote a sustainable development of suborbital commercial flight and autonomous access to space, given that "space and airspace are two sectors considered to be fundamental and strategic in the interest of the Country". The commercial suborbital flight is a type of passengers and materials transport operated through a special vehicle capable of reaching flight altitudes within the "suborbital area".

By means of the "MIT Guiding Act" no. 354 of the 10<sup>th</sup> of July 2017, the Minister of Infrastructure and Transport designated ENAC as competent Authority for the development of the national regulatory framework in the field of commercial suborbital transport.

ENAC has mainly focused its action on two areas of interest, closely related between them: the identification of the airport site where the first Italian spaceport will be located and the development of the regulation framework of reference.

After a process of strategic planning and selection of the potential airport sites, on the basis of specific technical-operational criteria identified by ENAC, the Minister of Infrastructure and Transport elected the airport of Taranto Grottaglie as site for the first Italian spaceport by means of the "MIT Guiding Act" no. 20 of the 9<sup>th</sup> of May 2019.

## Sheet 4.1 Planning and development of infrastructural interventions

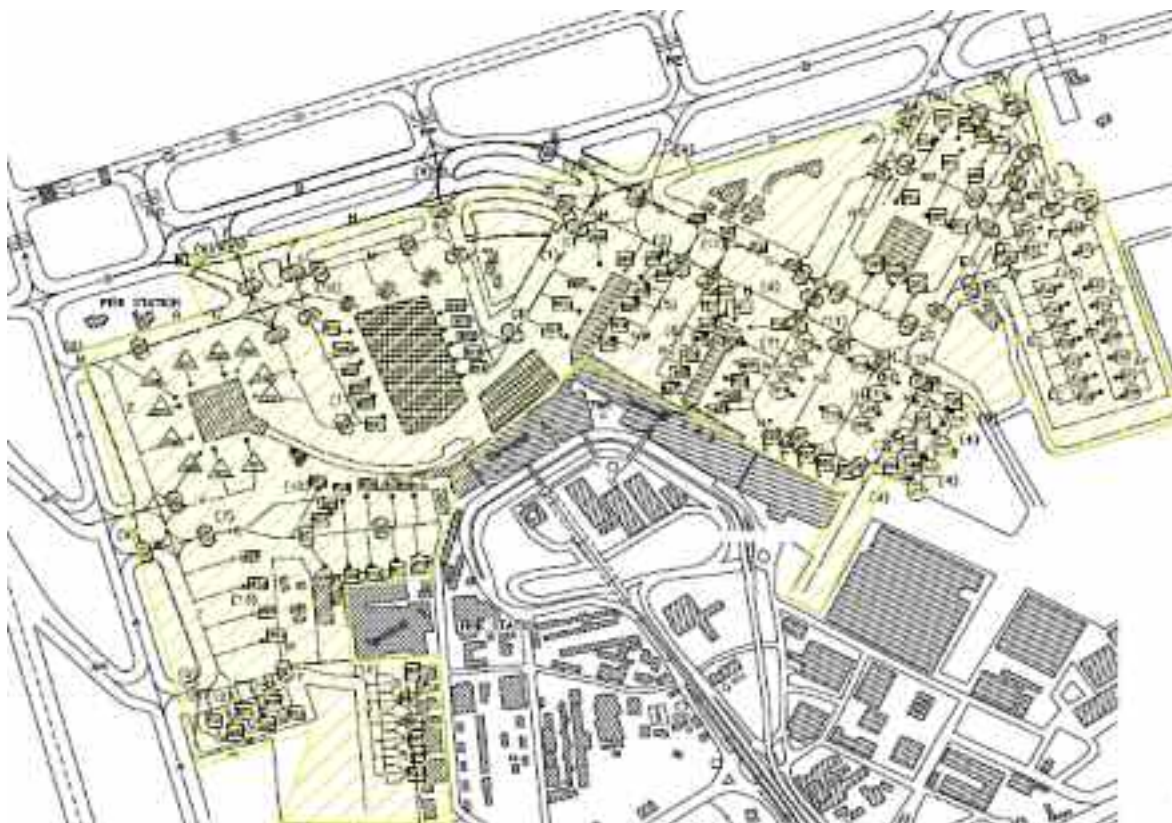
In order to select the regulatory requirements to build and operates a spaceport, ENAC has recourse to an interdisciplinary work group of professionals from different areas of interest, including ENAV, ASI (Italian Space Agency) and representatives of the national industry. The working group has produced a first version of this Regulation that will be submitted to the specific procedure and followed by the publication of the regulation by ENAC.

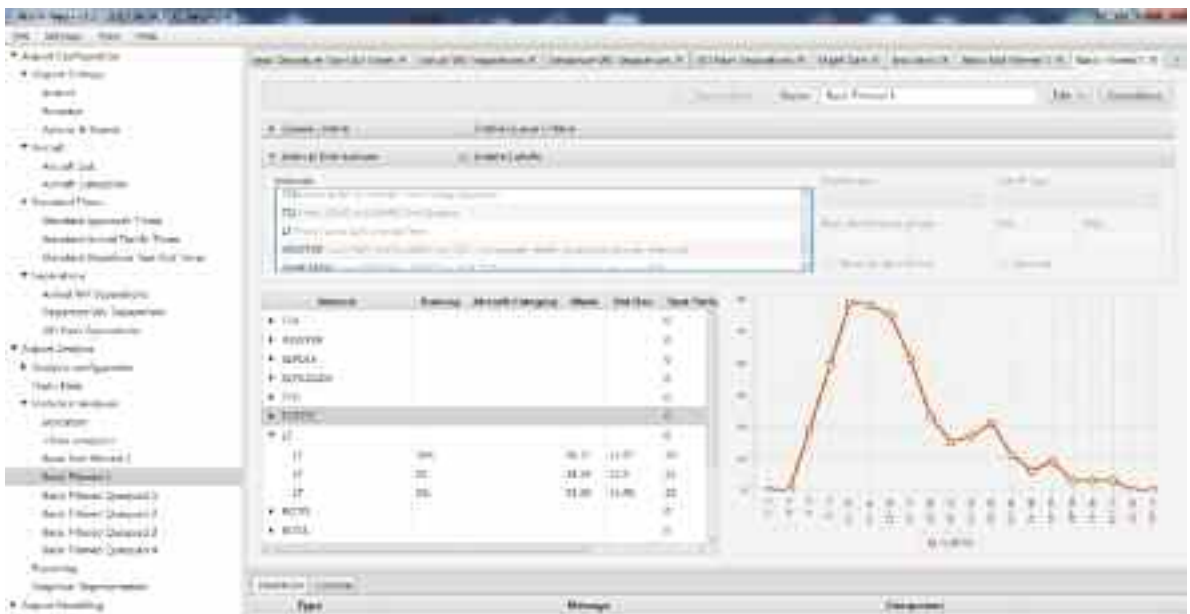
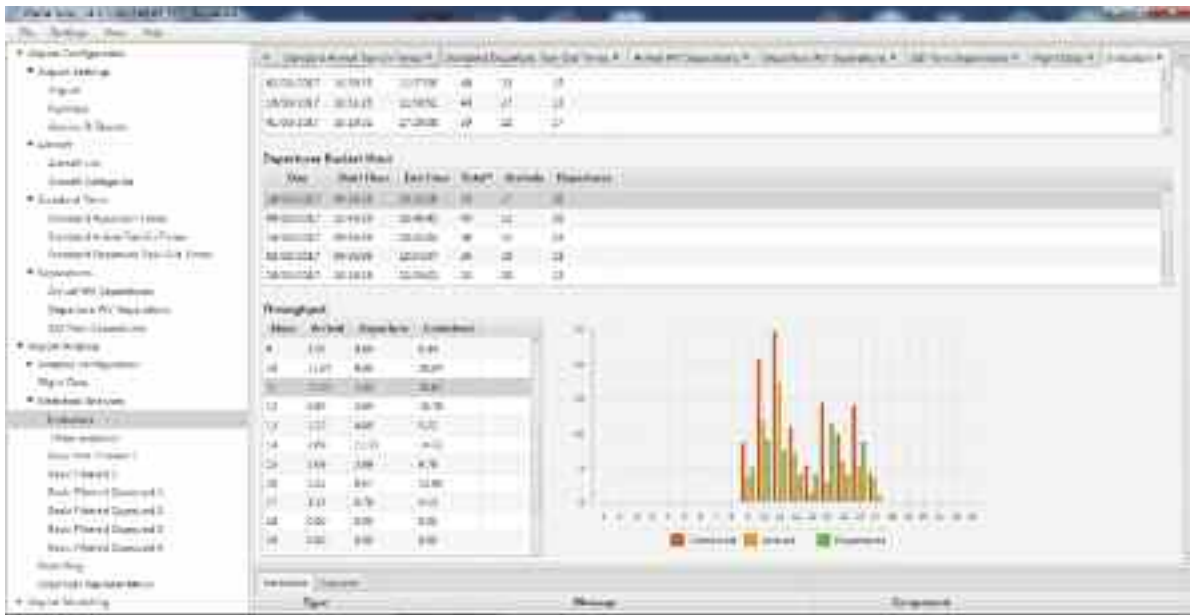
### Operativity of airport infrastructures

Over 2019, the activity connected to the operativity of airport infrastructures has continued. In particular, actions considered as strategic by ENAC have been implemented; they have been aimed at achieving challenging goals regarding also the advanced research on quantitative forecast models to analyse the airport accidentality in relation to traffic volumes and meteorological long-term data. Moreover, mitigation strategies have been identified through the use of EMAS (Engineered Material for Arresting Systems) and the criteria necessary for the development of a national programme of installation of it in the main airports.



Also, in 2019, the capability analysis models used by the ENAC have been consolidated in order to examine the several airport systems, including the one of Rome Fiumicino, reaching the possibility to analyse the daily operational data and identify the latent potentials of the different subsystems (runways systems, apron, terminal and parking system). Furthermore, the long work related to the validation of the software Piata Neo by Eurocontrol, conducted by ENAC in collaboration with ENAV and Sapienza University of Rome, has been concluded.



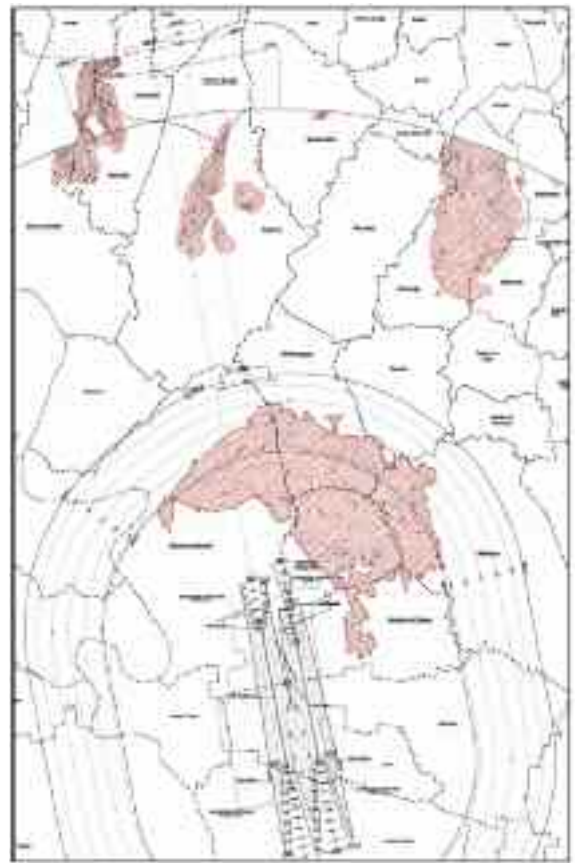


ENAC ensured its participation in national and international regulatory meetings as well as in the monitoring of international programmes, in particular in the context of EASA, ICAO, ECAC and Eurocontrol, guaranteeing the cooperation with other Institutions on the basis of existing specific plans, programmes and agreements. For instance,

with the National Fire Brigades, as part of the implementation of the European regulation revised by the Reg. (EU) no. 2018/1139, the activities aimed at redetermining the protection levels of fire-prevention and rescue to be ensured in the airports based on the current and future traffic needs have continued.



Additionally, a big commitment has been dedicated to the coordination of all the activities related to the fundamental area of airport public construction work realisation, made up of the technical-administrative acceptance test and certificate of airport works suitability. Through the nomination of over 100 Committees of Specialists, ENAC ensured, within the limits established by its procedures, the inspection of the completed works and the commissioning of several relevant airport construction works, including runways, passenger terminals, airport installations, visual aids systems and airport radio support.



At the same way, in 2019, the setup activities of the maps of the zones to be restricted in airports vicinity has continued. They regarded the limitations related to the obstacles and potential dangers for air navigation in the airports of Naples and Florence. On the subject of airport

obstacles, an intense work to evaluate the compliance of almost 1,000 permanent obstacles with the existing binding regime has been executed and the related provisions to authorise/soften or reject the restriction.

Also, in 2019, the ENAC technical Departments carried out the evaluations on the non-standard and satellite-based flight procedures, the definition of the slot capacity in winter and summer seasons, the limitations and exceptions for ground handling services.

## Airport design

In 2019, ENAC concluded over 164 preliminary procedures.

The most significant approved or ongoing projects are listed below.

### Rome Fiumicino Airport

#### East side infrastructures system - completion works of land side and air side infrastructures of the east side infrastructures subsystem lots b2 and 3



The planned works, that are part of the wider completion intervention of land side and air side infrastructures of the east side infrastructures subsystem (so-called hub - east), regard the complex of the structural, architectural and facilities related works necessary for:

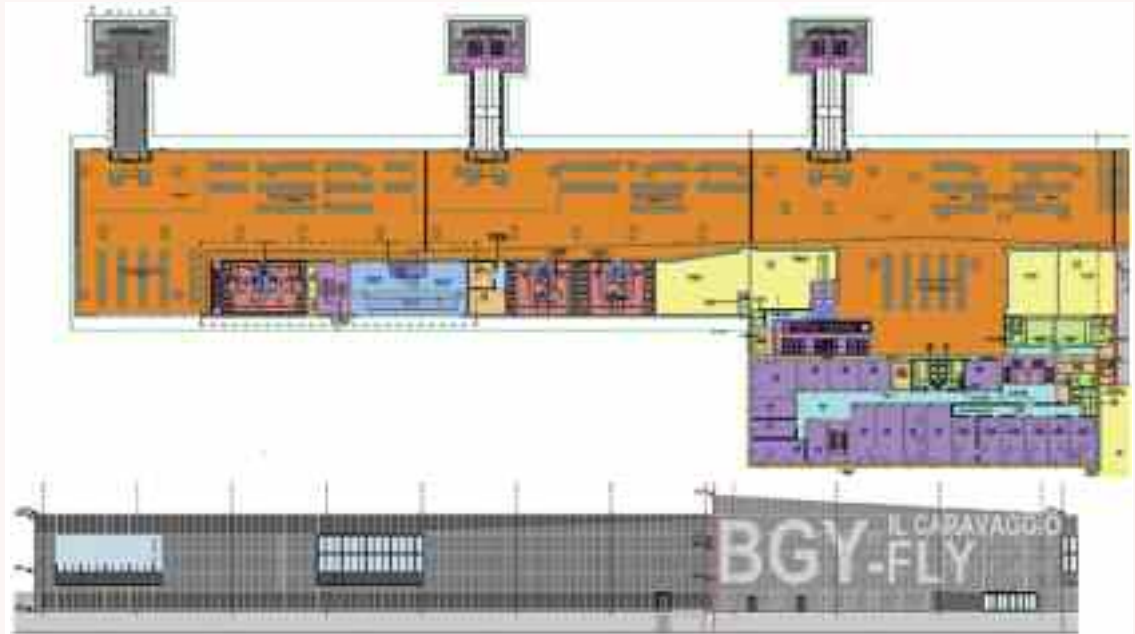
- 1) the realisation of the extension of the terminal 1 (ET1) (subpart 3), made up of a body of the building that will be developed in the western area of the existing infrastructure, in the area once occupied by the terminal 2. This body will be structured in three levels above the ground (height +1.30, height +6.20, height +11.05) and a portion of a basement and it will host:
  - a portion of the inbound baggage handling system and an air conditioning unit, in the basement;
  - the extension of the arrivals hall, height +1.30, where 3 additional baggage carousels will be installed;
  - the security checks, a wide area destined to passengers waiting for boarding and the shopping area, at height +6.20;
  - the VIP lounges and the arrival point for passengers coming from the train station, at height +11.05;
- 2) the realisation of the boarding hub D and the upgrade of the boarding area C (subpart 4).

The planned financial commitment for the realisation of the works amounts to € 180.774.902.44, € 147.598.259.56 of which are dedicated to safety related costs and works and € 33.176.642.88 to the amount available to the Administration.



## Bergamo Airport

### Extension of the Terminal Phase 1



The planned works, that are part of the wider intervention of extension of the terminal named "4 phases", regard the complex of the structural, architectural and facilities related works necessary for the realisation of a new body of the building that will be developed to the west of the existing infrastructure, in continuity with the terminal. The new body will be structured in two levels above the ground and a portion of mezzanine level and it will host the extension of the Schengen arrivals hall and the new medical corridor (ground floor), as well as the traffic of the Schengen departing passengers. In particular, the project includes 6 boarding gates, the installation of 2 new baggage carousels, a new building dedicated to the medical corridor, the offices of ENAC and other State Authorities, the shopping and services areas for passengers.

The time frame for the realisation of the intervention is 690 natural and consecutive days, articulated in 2 phases, and the financial commitment amounts to € 30,473,140.15, € 25,735,000.00 of which are dedicated to safety related costs and works and € 4,738,140.15 to the amount available to the Administration.

## Verona Airport

### Terminal extension and upgrade

In 2019, the final project to extend and upgrade the departures terminal of the Valerio Catullo Airport of Verona has been approved.

Two new spaces, adhering to the existing structure, contribute to the architectural reconfiguration and upgrade of the main fronts in airside and landside, reconnecting the departures area with the arrivals area. The internal restructuring and restyling measures will provide a new look to the spaces, improving the service levels for the passenger and offering deeply renewed rooms under the architectural profile.

The basement level, occupied by the storage rooms for the shopping areas, the utilities rooms and the sanitary facilities, is extended and reorganised. The departures hall and the check-in area are extended and modernised. The security checks are moved to the first floor and the control lines are increased. The BHS area is demolished and rebuilt; the

existing system is modified and implemented. At the first floor there are two new departures halls, the first one with 4 gates for boarding, transit and Schengen disembarkation; the latter has 2 gates for boarding and Schengen and extra-Schengen transit (and related passport control station).

In the airside, 3 jet bridges and concourses are realised and fitted for future addition of jet bridges.

The cost of the works amounts to € 52,785,836.27, € 2,850,000.00 of which for safety related costs.



## Pisa Airport

### Extension and renovation of the passenger terminal

In 2019, the preliminary project "Extension and renovation of the passenger terminal" has been approved.

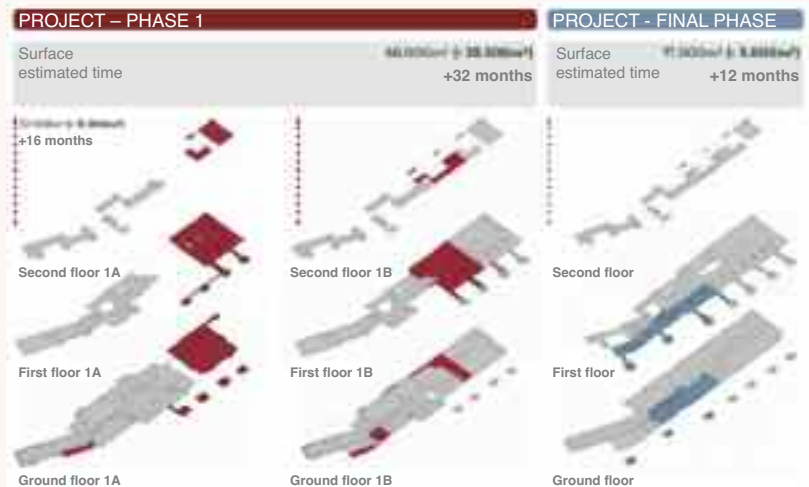
The project proposes a set of renovation and extension measures of the existing terminal developed in four phases of realisation that will progressively modify the building functional layout, respectively, in 2020 (Phase 1A), in 2021 (Phase 1B), in 2024 (Phase 2), in 2028 (Phase 3). The internal and external restyling of the terminal is planned and it will offer an improvement of the level of service provided to passengers. The intervention on the terminal regards the architectural and functional reconnection of the different parts of the terminal, realised in different periods, by modernising fronts and spaces under the architectural profile as well.

The extension works start with the realisation of a room to the east of the current terminal and then progressively moving west, by realising new rooms that will imply the complete demolition of existing areas such as the baggage claim area, built in the previous Phase 0.

During the different phases, 7 concourses and jet bridges for boarding foot passengers are progressively realised and fitted for contact boarding. The temporary ground and in elevation structures built in Phase 1A for the management of the passenger fluxes are removed during the following Phase 1B. The current mezzanine level remains and it is renovated and lengthen to be used as arrivals connection. The complete intervention plans the extension of all the terminal functional subsystems and the contemporary realisation of commercial spaces.

Three of the seven bridges are articulated in three corridors, two of which connect the gate rooms with the concourse and the other one connects the concourse with the mezzanine.

The cost of the works amounts to € 61,800,000.00, € 1,800,000.00 of which for safety related costs.



Phases of realisation



Departures hall

## Bologna Airport

### Extension and renovation of the passenger terminal

The executive design for the extension and renovation of the passenger terminal has started in 2019.

The Airport of Bologna has an Airport Development Plan that went through a long approval process that ended in 2016. During this period the traffic at the airport has grown considerably and it generated different infrastructural needs that required the update of the Plan with a new development trend to 2030 and a new planning of the interventions.

Currently the airport is a functional space that, however, in the peak hours experiences problems of saturation in some specific areas such as the boarding gates, airside circulation spaces, passport controls and airside shopping area.

The expansion project is aimed at providing the spaces necessary to fix all the current issues and, at the same time, to increase the capacity of the airside departures area in the midterm through a new and different layout of the current passenger terminal and adjacent aircraft aprons, by means of the following interventions:

- realisation of a new dock for departures and arrivals of passengers;
- extension of the existing terminal surfaces;
- renovation of the terminal from both the architectural and functional point of view;
- implementation of system networks on the basis of the new terminal configuration;
- realisation of jet bridges and concourses for the connection with the aircraft aprons in order to ensure a full functionality of the building;
- harmonisation of the internal and external spaces of the terminal from the architectural point of view in order to offer a single architectonic style;
- realisation of a new configuration of the aircraft aprons and the related taxiways in the terminal proximity.



## Sheet 4.1 Planning and development of infrastructural interventions

The realisation of the new deck upgrades both the contact and remote boarding gates. This new building is designed to be a flexible infrastructure, able to manage both the Schengen and extra-Schengen traffic, by maximising the operational efficiency and the capacity during peak-times.

The terminal extension redefines the spaces for the passenger by the realisation of a departures hall which is much larger than the current one and reachable through a walking path in the shopping area.

The air side interventions to be carried out on the taxiways and aprons include relevant works of renovation, demolition and rebuilding of the pavements, cable ducts, water system and visual aids. Furthermore, it is planned the realisation of a new taxi lane and the reconfiguration of the aircraft parking bays which are now moved on the north and south side of the new deck.

The planned interventions affect the existing air side terminal in almost its entirety, contemporary involving different areas on different floors.

Hence, the planned works will be realised following a precise time organisation with a chronological order that will involve parts of the building in order to maintain the constant functioning of the terminal by ensuring:

- sufficient and appropriate service levels for passengers - LOS during the work phases;
- appropriate levels of airport safety and security.

The cost of the works amounts to about € 109 million including safety related costs.



## Airport Interventions Monitoring System

The MIA computer system (acronym for Airport Interventions Monitoring System in Italian language), put into service by ENAC in 2015, permits the monitoring of the timing and economic progress of the interventions realised in the airport infrastructures, pursuant the commitments of the airport managing bodies, reported in the Planning Agreements.

The MIA data are those related to airport agreements, Planning Agreements, intervention plans and the related interventions included in them. Several sheets are attached to the intervention plans where the interventions are described and categorised, and the expenditure forecast per year is reported together with the financing typology.

In the first years of interventions monitoring through the MIA System, the airport managing bodies operated a progress data update twice per year in parallel with the so-called institutional monitorings. The success of the system and the decision of the Ministry of Infrastructure and Transport to power the "Opencantieri" portal with the MIA data made a regular update of the progress works urgent: it highlighted the need to promptly and continuously update the interventions status and the available amounts for each monitored Planning Agreement on the MIA system.

In 2019, ENAC carried out the monitoring of the airport construction works progress included in the 2018 final balance for the following airports.

### Airports with Planning Agreement in derogation (final balance 2018)

- Milan Linate and Malpensa - SEA SpA
- Rome Ciampino and Fiumicino - ADR SpA
- Venice - SAVE SpA

### Airports with ordinary Planning Agreement signed under the Legislative Decree 133/2014

- Bergamo - SACBO SpA
- Bologna - Aeroporto Guglielmo Marconi di Bologna SpA
- Cagliari - SOGAER SpA
- Catania - SAC SpA
- Florence and Pisa - Toscana Aeroporti SpA
- Genoa - Aeroporto di Genova SpA
- Lamezia Terme - SACAL SpA
- Naples - GESAC SpA
- Olbia - GEASAR SpA
- Palermo - GESAP SpA
- Turin - SAGAT SpA
- Trieste - Aeroporto FVG SpA
- Verona - Aeroporto Valerio Catullo di Verona SpA

## COMMUNITY FUNDING FOR AIRPORT INFRASTRUCTURES

As part of its institutional tasks, ENAC manages and implements investment programmes financed by national and EU public funds that, in particular, contribute to:

- improving airport infrastructures;
- creating intermodals connections and improving airport accessibility;
- increasing the level of the services offered to passengers, ensuring the achievement of the international standards, above all in terms of safety/security and quality;
- promoting the development and the efficient and sustainable use of airport infrastructures.

In this context, ENAC is engaged in the management of the Plan of Action and Cohesion (PAC) that, using national financial resources, supports the realisation of some priority measures for the Country's development which have previously included in the European Regional Development Fund 2007-2013.

The Ministry of Infrastructure and Transport, as administration in charge of the management of the measures funded by the PAC, through a convention, assigned to ENAC the role of Intermediate Body, directly and exclusively transferring to ENAC the responsibilities of the Management Authority for the management of the funded airport interventions, under the Reg. (EC) no. 1083/2006.

In particular, ENAC in performing the duties of the Management Authority, carries out the activities connected to the procedures of selection, management, financial

reporting and monitoring, procedural and physical, of the funded interventions, as well as to the control on the fair use of resources, ensuring an adequate connection with the Management Authority.

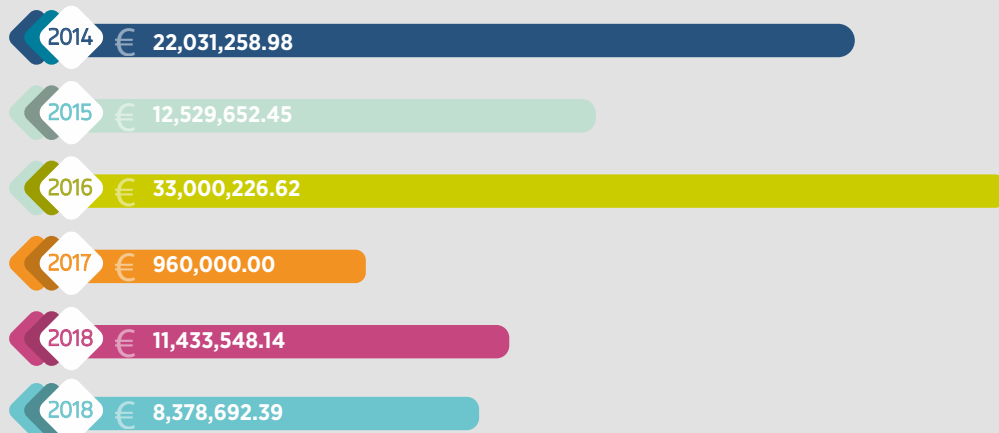
The PAC ensures the economic coverage of 8 interventions, for a total amount of about € 30 million, shared between the airports of Bari and Lamezia Terme. With regard to the airport of Bari, these are interventions of requalification of the taxiways C and D as well as the aircraft parking bays, implementation and installation of Visual Aid Systems, upgrade of the flight infrastructures to the RESA regulation (Runway End Safety Area) and extension of the runway. All the interventions are in progress or in testing and the planning completion is expected within 2020.

Furthermore, over 2019, ENAC signed with the Authority of Harbour System of the Western Ligurian Sea, the Special Commissioner for rebuilding and the Genoa Airport, an Agreement for the development of the Genoa Airport and all the Ligurian territory which will allow the improvement of the quality level of the services provided to passengers, comfort and punctuality, also thanks to the planned interventions in the field of intermodal transport.

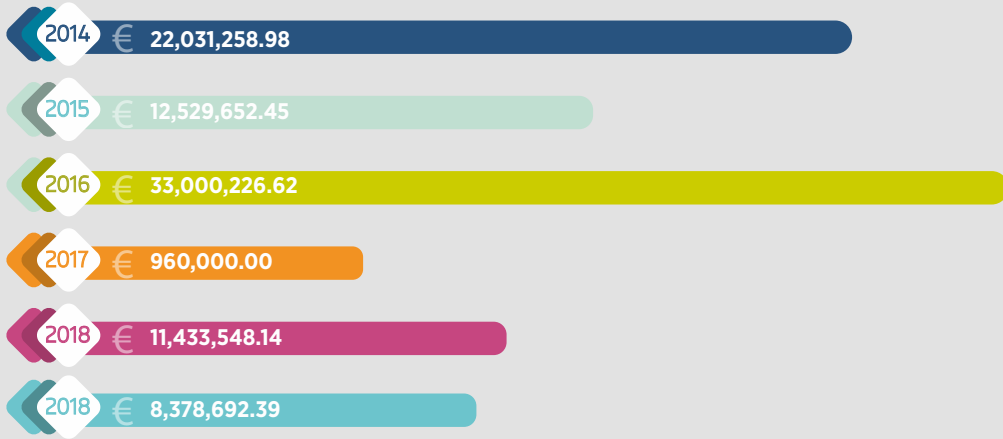
In the context of the public funding included in the Operational Plan of the Infrastructures Development and Cohesion Fund 2014-2020, the Agreements for the realisation of the infrastructural interventions in the airports of Cagliari, Olbia and Parma have been signed in coordination with the Ministry of Infrastructure and Transport.

### Financial resources per airport typology

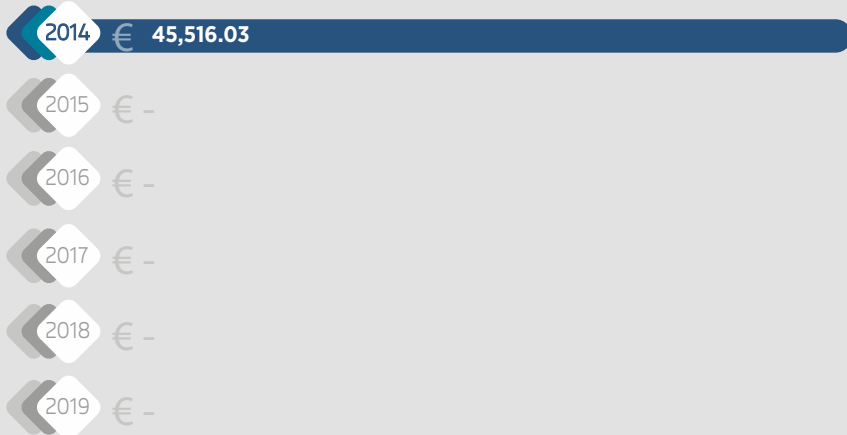
**Airport located in the whole national territory, included the South (only national resources)**



**Airport located in the whole national territory, included the South (only national resources)**



**Airport located in the whole national territory, included the South - TEN-T Networks  
European Commission (only European resources)**







# 5

## ECONOMIC REGULATION

Sheet 5.1

**113**

**National air carriers**

Sheet 5.2

**117**

**Air transport agreements  
with non-EU Countries**

Sheet 5.3

**118**

**Protection of the right to mobility**

Sheet 5.4

**121**

**Airport management**

Sheet 5.5

**125**

**Planning Agreements**

Sheet 5.6

**125**

**Quality of airport services  
and protection of passengers' rights**



## NATIONAL AIR CARRIERS

The Regulation (EC) no. 1008/2008, that sets common rules for the operation of air services in the European Community, identifies two air carriers' categories: "A-class" air carriers use aircraft with a maximum mass at take-off of over 10 tons or having more than 19 seats, "B-class" air carriers use aircraft with a maximum take-off mass of less than 10 tons or less than 20 seats.

The Regulation establishes that the commercial air activity can be operated only from those companies which obtained an air transport operating licence that allows the company to transport passengers, mail or goods; Moreover, it defines the organisational as well as economic-financial requirements for the issuance and the following maintenance of the licence. The licence issuance is the final step of the process that includes the compliance with the administrative, economic and financial requirements as well as the technical-operational requirements in order to obtain the air operator's certificate (AOC).

The activities of oversight and verification are based on the above-mentioned requirements and they are aimed at ensuring the correct execution of the air transport services. In particular, the art. 5 defines the financial requirements for the issuance of a licence that are applicable both to A-class and B-class air carriers.

The organisational and economic suitability of the air carrier is a mandatory condition for the purposes of operations safety and commitment to the users, also in accordance with the European regulations that recognise a potential correlation between the financial soundness and the safety of operations conducted by the air carriers. It should also be noted that the European Commission, pursuant to this Regulation, in a communication to the Parliament (COM 2013 - 129 final), provided the prerequisites for the compliance with the Reg. (EC) no. 261/2004 on the passengers' rights protection and it has confirmed the need of the monitoring activity of the air carriers economic and financial conditions carried out by civil aviation authorities of Member States, intensifying the oversight activity based on the degree of criticality observed.

In accordance with the prescriptions of the above-mentioned Communication, ENAC, in order to execute the economic and financial monitoring activity on the so-called A-class air carriers, since 2013, has started a strict

supervision on the financial situation of the airlines that, in this moment of economic downturn, are being affected always more.

In this regard, the coordination between the operational and economic data collected by Eurocontrol, airports, ENAC itself and the ones declared by the air carriers has been improved. With the aim of standardising and updating the issuance of the operating licences and the following monitoring checks, ENAC has elaborated some forms that the air carriers are required to fill in with their economic, financial and operational data in order to allow the verification of the presence of the conditions that led to the licence issuance and the maintenance of it.

These forms, after being filled in by the air carriers, are sent to ENAC with different frequencies (e.g. monthly, quarterly) on the basis of the details spotted on the air carriers part, in order to allow a real time evaluation of the presence of the conditions that led to the licence issuance and the maintenance of it.

During the issuance of the licence, the forms will include the expected data that will be used for the following monitoring activity on the persistence of the actual requirements.

Furthermore, the art. 8 of the Regulation establishes that the operating licence is valid as long as the air carriers keeps complying with all the requirements that led to its issuance, conferring the task of verifying that the licenced air carriers comply with the mentioned requirements, paying particular attention to the economic and financial ones, upon ENAC. On the basis of the received documentation, ENAC decides whether to confirm the licence or to suspend and revoke it (art. 9, amend.1 of the Regulation) whenever an air carrier is found to be no longer able to meet its current and future commitments for a period of twelve months.

### A-class air carriers

In order to allow ENAC to carry out the evaluation of the presence of the conditions that led to the licence issuance and the maintenance of it, the A-class air carriers send the forms with their economic, financial and operational data to ENAC, on the basis of the details spotted on the air carriers part.

These forms are a more current and exhaustive monitoring

## Sheet 5.1 National air carriers

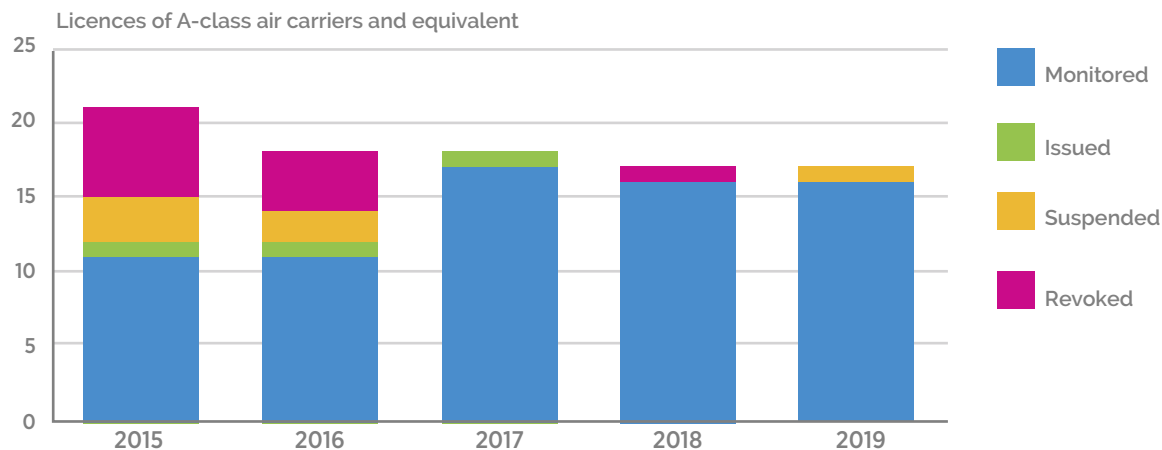
tool compared to the audited financial statement, usually acquired during the second half of the year following the financial year of reference.

During 2019, no licences have been issued. On the 26<sup>th</sup> of September 2019, the operating licence of air cargo

transport of the Italian company SW Italia SpA has been suspended.

The following graph shows the trend of the surveillance activity carried out by ENAC in the period from 2015 to 2019.

### ENAC activity in the period 2015-2019



Note: for 2018 and 2019 also the monitoring activity on B-class equivalent air carrier (whose revenues are over € 3 million per year and that operate HEMS activities) has been considered.

### Fleet of A-class air carriers

The following table shows the total number of aircraft (property/dry lease) used by national carriers which are 183

by the end of 2019. The Italian air carriers keeps being in the medium-haul category.

A-class air carriers fleets	2018			2019		
	Short haul	Medium haul	Long haul	Short haul	Medium haul	Long haul
Air Dolomiti	12	-	-	14	-	-
AIR ITALY	-	10	7	-	8	5
Alitalia CityLiner	15	5	-	15	5	-
Alitalia SAI	-	72	26	-	69	26
Blue Panorama Airlines	-	8	3	-	12	3
Cargolux Italia	-	-	4	-	-	4
Ernest	-	3	-	-	4	-
Poste Air Cargo * (formerly Mistral Air)	3	3	-	-	6	6
Neos	-	6	6	3	3	-
SW Italia **	-	-	1	-	-	-
<b>Subtotal</b>	<b>30</b>	<b>107</b>	<b>47</b>	<b>32</b>	<b>107</b>	<b>44</b>
<b>Total</b>		<b>184</b>			<b>183</b>	

\* Operating licence issued to Mistral Air and registered to Poste Air Cargo from the 1<sup>st</sup> of October 2019.

\*\* Operating licence suspended on the 26<sup>th</sup> of September 2019.

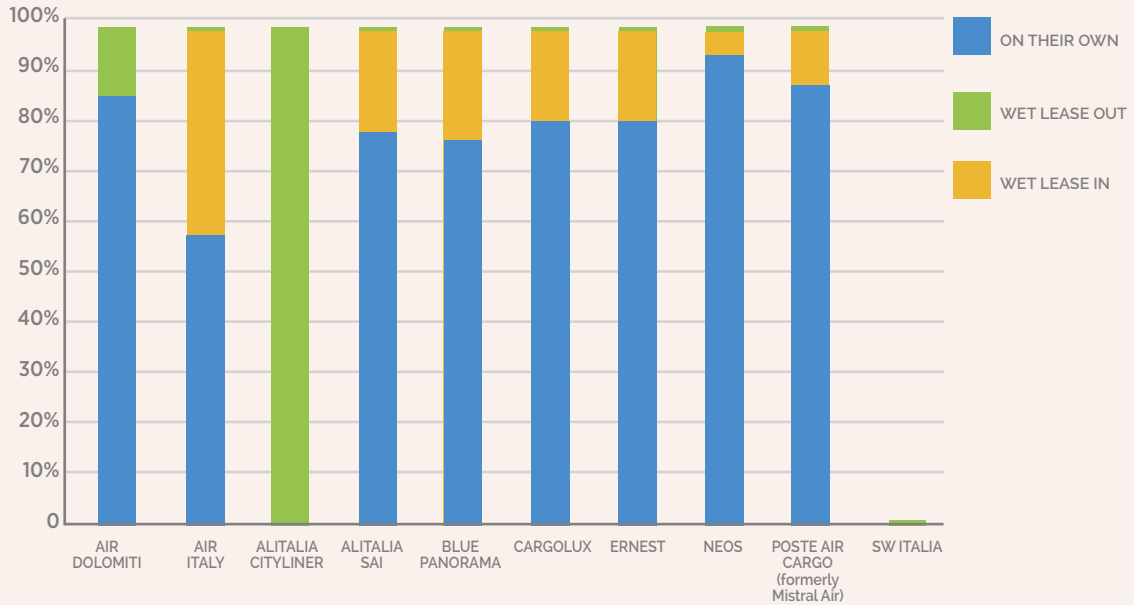
**FLIGHT ACTIVITY OF A-CLASS AIR CARRIERS**

The following graph shows the flight activity carried out with owned and "wet lease in" aircraft and the "wet lease out" activity, for each air carrier.

The data have been elaborated based on those from the Eurocontrol flight plans with reference to the number of landings on Italian airports.

The air carriers of the Alitalia group (Alitalia SAI and Alitalia CityLiner) the use of aircraft in "wet lease in" or "wet lease out" is relevant in the intragroup operations.

The air carrier SW Italian carried out its activity outside the national territory until the 26<sup>th</sup> of September 2019, licence suspension date.



**Dry lease:** (lease without crew): agreement between companies under which the aircraft use takes place in accordance with the lessee AOC specifications.

**Wet lease:** (lease with crew): agreement between companies under which the aircraft use takes place in accordance with the lessor AOC specifications.

**Wet lease in:** lease of services provided by a third air carrier to integrate the own flight operations network.

**Wet lease out:** the air carrier provides another air carrier with services.

**B-class equivalent air carriers**

The art. 5, point 3 of the Regulation establishes that the economic and financial requirements of the B-class air carriers are met if their equity is not less than € 100,000. However, the Regulation allows the competent authority for the licence issuance to apply the requirements for the A-class air carriers to an air carrier that intends to operate airline services or whose business volume is over € 3 million per year.

In its tasks and for reasons of advantage and efficacy of the administrative action, ENAC implemented the above-mentioned possibility provided for in Regulation.

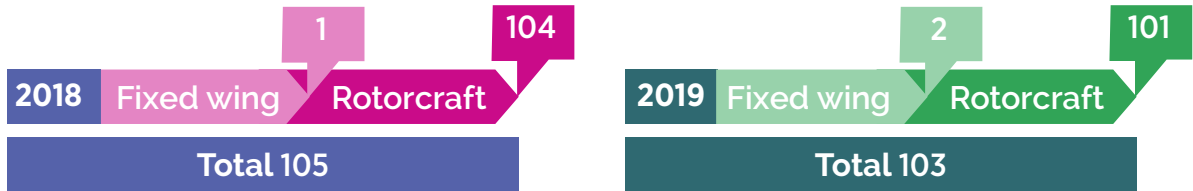
In particular, taken into account that the B-class air carriers with a business volume over € 3 million per year were a good part of the certified air carriers, ENAC decided to limit the application of the above-mentioned requirement to the air carriers that carry out HEMS (Helicopter Emergency Medical Service) activity.

### Fleet of B-class equivalent air carriers

As shown in the following graph, the total number of aircraft used by B-class equivalent air carriers at the end of

2019 to carry out air transport activity is 103, 101 of which rotorcrafts and 2 fixed wings.

**Aircraft used by B-class equivalent air carriers for commercial transport activity**

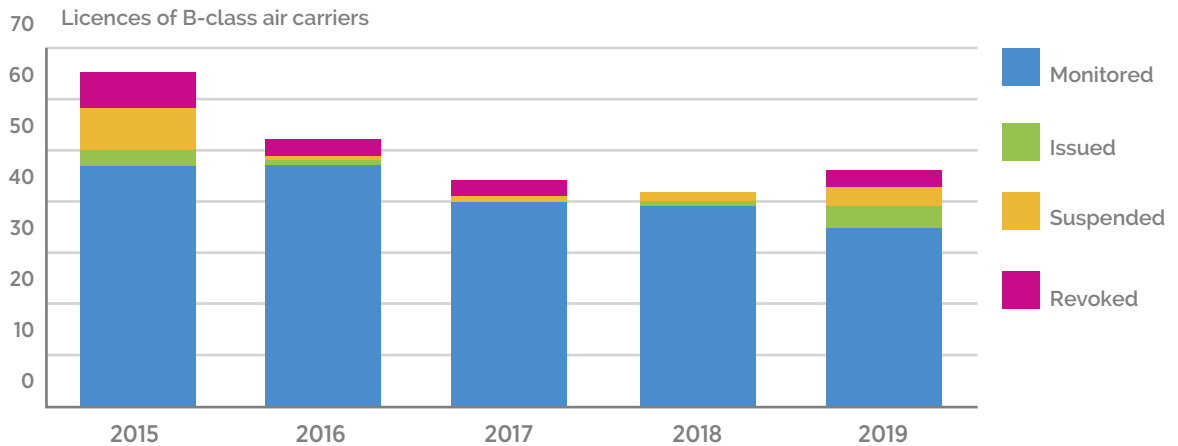


### B-class air carriers

The following graph shows, for the period from 2015 to 2019, the requirements verification activity carried out by ENAC under the Regulation (EC) no. 1008/2018 for the issuance and maintenance of the air transport operating licence for B-class air carriers.

During 2019, four new operating licences have been issued (Aliserio Srl, Elify International Srl, Helica Srl e North West Service Srl) and four have been suspended (Aeropa Srl, Rotor Italia Sas, Pellissier Helicopter Srl e Winfly Srl). Over 2019, also three operating licences have been revoked (Eurofly Service SpA, K-Air Srl e Hoverfly Srl).

**ENAC activity in the period 2015-2019**

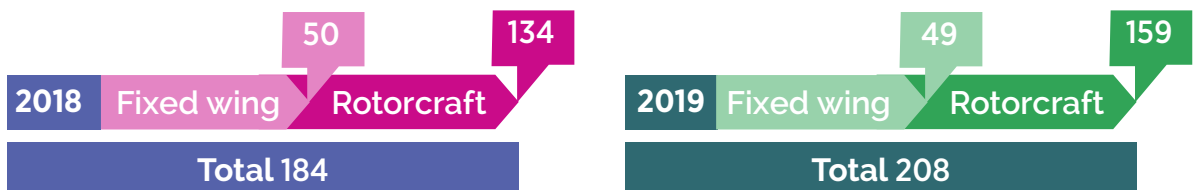


### Fleet of B-class air carriers

As shown in the following graph, the overall number of aircraft used by B-class air carriers at the end of 2019 for

carrying out air transport activity are 208, 159 of which are rotorcrafts and 49 fixed wings.

**Aircraft used by B-class air carriers for commercial transport activity**



## AIR TRANSPORT AGREEMENTS WITH NON-EU COUNTRIES

### Commercial air services – Operational authorisations in favour of air carriers

ENAC issues the operational authorisations and the traffic rights related to scheduled flights based on the provisions of the air traffic agreements between Member States and Third Countries in the field of air services.

Charter flights are authorised on the basis of the ENAC Regulation on not-scheduled services that are operated in non-EU routes.

These provisions, downstream of the security, safety and insurance checks under the air carrier responsibility, authorise the commercial operation of Third Countries air carriers.

The Technical Approval, issued by EASA under the Reg. (EU) no. 452/2014, represents a preliminary condition to start the Accreditation procedure of Third Countries air carriers and to the following issuance of the operational authorisations. In this context, the control and monitoring activities on the Third Countries air carriers operability carried out by ENAC in cooperation with EASA is aimed at ensuring the safety of the flights.

This regulation is applied since 2016, the active air carriers in Italy and the new entries showed to have completely implemented the new regulatory framework and the modification of the ENAC procedures in accordance with the EASA disposals. This allowed ENAC a quicker execution of the documental controls in order to issue, maintain and monitor the Accreditations and the Authorisations.

As regards the schedule flights, in 2019, ENAC approved an average of 270 programmes for connections to Third Countries operated by 9 air carriers both Italian or established in Italy, 40 air carriers had a licence granted by another EU State and about 100 air carriers held a licence from Non-EU Countries.

The programmes presented during the two IATA seasons in 2019 showed a decrease of the previously authorised traffic volumes in comparison with the data related to 2018. The number of code-sharing requests submitted by airlines to ENAC were more than 115, including 45 bilateral ones and the use of some 60 aircraft in Aircraft Crew

Maintenance Insurance (Insurance, maintenance and crew included) have been approved.

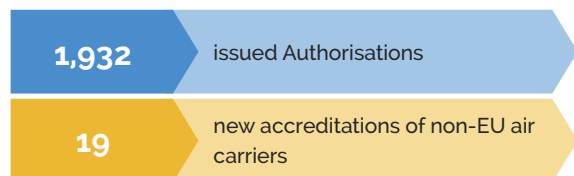
As regards the charter flights, after the positive trend of 2017 and 2018, in 2019 a considerable decrease has been registered in particular for passenger charter flights operated by Russian air carriers. The cargo flights have registered an increase of the traffic volume instead.

Considering the persistent political crisis of the North African Countries, the market of charter flights to North Africa has been sharply decreasing from several years and in 2019 it dropped to the minimum in the average of the last years.

About security, in order to protect cargo and mail entering the EU from other Countries, ENAC has screened the accreditations of all air carriers to unload goods coming from Third Countries in accordance with the Reg. (EC) no. 300/2008, confirming existing licenses to or issuing new ones for inbound operations in Italy as first stop in Europe.

In the same way, the cargo operations in favour of air carriers not in possession of ACC3 Certification (air carrier for goods or post that operates in EU from a Third Country airport) have been authorised over ENAC exemption.

It is worth noting that the commercial air carriers, in fulfilment of the Reg. (EU) no. 300/2008, have implemented their ACC3 designations; as a consequence, the issued exemptions mainly regarded the flights operated on behalf of the Italian Army. Moreover, the flight authorisations for material classified as Dangerous Goods based on ENAC specific exemptions and for flights requested through diplomatic channels have been issued. Several ambulance flights from Libya in derogation to Notam of closure of the Italian airspace have been authorised.



## PROTECTION OF THE RIGHT TO MOBILITY

The activity of ENAC is also aimed at maintaining the essential air services in case of strike and guaranteeing the territorial continuity principle to protect the right to mobility of all the citizens.

### Protection of the right to mobility and the right to strike

In accordance with the Law no. 146/1990 on the strike of the essential public services, the Law no. 83/2000 and the Decision of the Guarantee Commission no. 14/387 of 113 October 2014, ENAC continued to carry out the delicate task of identification of the "essential minimum services" for the users during the strikes. As a matter of fact, ENAC is the only subject institutionally and technically in charge of preparing the essential public services plan in the event of strikes in the air transportation field and, therefore, of implementing the right to mobility and to strike, both established by the Constitutional Charter.

### Guaranteed minimum services in case of strike

In the event of civil aviation staff strikes (air traffic controllers, pilots, flight attendants, flight engineer, ground staff, maintenance technical staff, air carriers and airport managing bodies employees), ENAC identifies the essential minimum services such as to limit the inconvenience to citizens and ensure the transport of perishable goods, live animals, medicines, basic goods and goods essential for the population and for the continuity of productive activities deemed indispensable. In addition, during the strikes, it acts in coordination with ENAV and Eurocontrol, to quickly resolve any issue regarding the closing of the Italian airspace in order to reduce inconveniences for passengers respecting the right to strike.

In 2019 ENAC has started an activity of coordination with the service providers (ENAV and Eurocontrol) in order to mitigate the air traffic management that, in case of a complete adherence to strike of the ATC staff, inevitably affects the whole sector (also economically) considering the delays, the flights associated to rescheduling and cancellations.

In accordance with its role, during the year ENAC has started the dialogue with the Commission of Guarantee on Strike providing its technical contribution to put into writing a "draft of the Collaboration Agreement" in order to assess the potential proposals that comply with the regulation of reference aimed at reconciling the right to strike with the right to mobility.

In 2019, as a consequence of national strike announcements, 35 lists of flights to support have been issued and the assessments on airlines flight schedules have been carried out, ensuring the passengers 774 guaranteed flights.

### Safeguard of the principle of territorial continuity

Following the liberalisation of air transport and in line with market principles, air carriers have invested in the more commercially viable routes and have abandoned the less attractive ones, such as the ones to islands and peripheral or developing regions, thereby potentially undermining the citizens' mobility right in some areas (so-called cases of market failure).

ENAC, in collaboration with the Ministry for Infrastructure and Transport and the regions involved, in order to safeguard the principle of territorial continuity and in compliance with the art. 16 and 17 of the Reg. (EU) no. 1008/2008 that includes shared rules for air services in the EU Community, is committed to ensure the air routes between the disadvantaged areas and the Italian main cities. As part of a European tendering procedure, ENAC selects the air carriers that will operate, with exclusive rights, on these routes under a public service obligation with financial compensation. As regards to the connections with Sardinia, the air carriers are selected by the Autonomous Region of Sardinia, in compliance with the regulation.

## PUBLIC SERVICE OBLIGATIONS ENSURED IN 2019

## Calabria Region

**Routes:**

Crotone - Rome Fiumicino and vice versa  
 Crotone - Turin and vice versa  
 Crotone - Venice and vice versa

The Conference of Services met in the second half of 2019 in order to define the territorial continuity regime on the three routes from the 1<sup>st</sup> of July 2020. Due to the remarks of the EU Commission on the territorial continuity regime defined by the Conference, the imposition of the public service obligation has not been published, making a remodulation of its contents by the Conference itself necessary.

## Sicilian Region

**Routes:**

Pantelleria - Trapani and vice versa  
 Pantelleria - Palermo and vice versa  
 Pantelleria - Catania and vice versa  
 Lampedusa - Palermo and vice versa  
 Lampedusa - Catania and vice versa

The company Danish Air Transport that won the tender to operate the air services burden from the 1<sup>st</sup> of July 2018 to the 30<sup>th</sup> of June 2021 - G.U.U.E. C 441 of 22 December 2017 - in 2019 has regularly operated the burden connections established by the Ministerial Decree no. 550 of 28 November 2017 - G.U.R.I. no. 299 of 23 December 2017.

**Routes :**

Comiso - Rome Fiumicino and vice versa  
 Comiso - Milan Linate and vice versa  
 Trapani - Ancona and vice versa  
 Trapani - Brindisi and vice versa  
 Trapani - Naples and vice versa  
 Trapani - Parma and vice versa  
 Trapani - Perugia and vice versa  
 Trapani - Trieste and vice versa

The Conference of Services met in the first half of 2019 in order to define the territorial continuity regime from the 29<sup>th</sup> of March 2020. The Conference outcomes have been included in the Ministerial Decree no. 322 of 16 July 2019 (G.U.R.I. no. 191 of 16 August 2019) that imposed public service obligation on the eight routes. Due to the remarks of the EU Commission on the territorial continuity regime, the Ministerial Decree no. 322 of 16 July 2019 was repealed by a following ministerial decree.

## Toscana Region

**Routes :**

Elba - Florence and vice versa  
 Elba - Pisa and vice versa  
 Elba - Milan Linate and vice versa

The Ministerial Decree no. 557 - 24 December 2018 (GURI no. 19 - 23 January 2019), imposed public service obligation on the three routes from 1 June 2019. The following public tender regarding the entrusting of the burdened air services, published in the G.U.R.I. 5<sup>th</sup> special series - Public Contracts - no. 12 of 28 January 2019, was declared unsuccessful.

In June 2019, the Conference of Services met again and the outcomes have been included in the Ministerial Decree no. 346 - 2 August 2019 - that established public service obligation on the three routes from 1 February 2020. The following public tender regarding the entrusting of the burdened air services, published in the G.U.R.I. 5<sup>th</sup> special series - Public Contracts - no. 105 of 6 September 2019, has been awarded to the company Silver Air, air carrier from Czech Republic for the three-year period from the 1<sup>st</sup> February 2020 to 31<sup>st</sup> January 2023.



## Autonomous Region of Sardinia

### Routes:

Alghero - Milan Linate and vice versa  
 Alghero - Rome Fiumicino and vice versa  
 Cagliari - Milan Linate and vice versa  
 Cagliari - Rome Fiumicino and vice versa  
 Olbia - Milan Linate and vice versa  
 Olbia - Rome Fiumicino and vice versa

Since 2010 the Autonomous Region of Sardinia is directly in charge of territorial continuity functions and its financing.

On the six historic routes of Sardinia, public service obligations have been imposed by Ministerial Decree no. 61 - February 21<sup>st</sup>, 2013 (GUUE C 104 - April 10<sup>th</sup>, 2013) as amended by Ministerial Decree no. 133 - April 21<sup>st</sup>, 2013 (GURI no. 95 April 23<sup>rd</sup>, 2013). The routes were awarded under the European tendering procedure as from 27 October 2013 for a period of four years (GUUE C 180 26 June 2013 - C 182 - 27 June 2013 - C 183 - 28 June 2013) to the air carriers Alitalia-SAI (routes from Cagliari and route Alghero - Milan Linate), Blue Air (route Alghero - Rome Fiumicino) and Air Italy (routes from Olbia).

Due to the remarks of the EU Commission on the new territorial continuity regime in force from the 27 October 2017 (Ministerial Decree no. 91 - 23 March 2017 - G.U.R.I. no. 100 of 10 May 2017) and then from 17 April 2019 (Ministerial Decree no. 367 of 8 August 2018 and subsequent amendments - G.U.R.I. no. 222 of 24 September 2018), the Sardinia Region revoked the awards of the following European tendering promoted in the G.U.U.E. C 362 of 8 October 2018.

Pending a new charging procedure, the Region prolonged the 2013 agreements with the air carriers Alitalia-SAI, Blue Air (until 16<sup>th</sup> April 2019) and Air Italy (until 16<sup>th</sup> April 2019). Since the 17<sup>th</sup> April 2019, the air services on the route Alghero - Rome Fiumicino that the air carrier Blue Air decided to stop operating, have been entrusted from the Region to Alitalia-SAI through an emergency procedure. The routes from Olbia have been accepted, without any financial compensation, for one year, by Air Italy and Alitalia-SAI.

## TERRITORIAL CONTINUITY IN 2019

Even if in a context of liberalisation of the sector, ENAC kept ensuring the right to mobility through a surveillance activity on the burdened air service carried out to islands and peripheral areas.

During the year:

- **€ 8,545,590.25** spent from state funding;
- **10 meetings** carried out in **4 Conferences of services**;
- **22 interventions** carried out to ensure the correct implementation of the agreements;
- **5,911 flights** were guaranteed with the financial support of the State;
- **198,731 passengers** were transported with the financial support of the State.

## AIRPORT MANAGEMENT

The airport managing body is the subject recalled in the articles 704 and 705 of the Italian Air Navigation Code, entrusted by law and contract to administer and manage airport facilities or airport networks and to coordinate the activities of the several airport operators in the airports and in the airport network.

The airport management concession is issued with a decision adopted by the Ministry of Infrastructure and Transport in consultation with the Ministry of Economy and Finance and, limited to military airports open to civilian traffic, with the Ministry of Defence. The license, with maximum duration of 40 years, is awarded on proposal of ENAC following a public tender selection, and the signing of an agreement between the airport managing body and ENAC.

### Investigation on the privatisation of the Airport Managing Bodies

Among the surveillance and monitoring tasks of ENAC there is the one related to the verification of the corporate transactions through which the airport managing bodies trade their shares, partially or completely, by expressing an advice to the Ministry of Infrastructure and Transport that, to this end, consults both ENAC and the Ministry of Economy and Finance.

The regulatory framework of reference in this verification activity consists of the primary general regulation - art. 10 of the Consolidated text on Publicly Owned Corporations (Legislative Decree no. 175/2016), art. 5, amendment 9 of the Legislative Decree no. 50/2016 and subsequent modifications, as well as the specific sectorial provisions included in the Ministerial Decree no. 521/1997, art. 2, amendment 2 and 3.

On the subject of transfer of public shares of airport concession holder companies, the Italian Anti-Corruption Authority and the Italian Competition Authority (Autorità

Garante della Concorrenza e del Mercato) have intervened with respectively the Resolution no. 20 of 12/11/2014 and the Advisory AS1394 of 5 July 2017.

The two authorities, tracing back the specific regulation of the sector (art. 10, amendment 13 Law no. 537/1993; art. 2 Ministerial Decree no. 521/1997; Decree of President of Italian Republic no. 533 del 1996; Legislative Decree no. 332 del 1994), have harmonised the contents with the European Community principles transposed in the Italian Public Contract Code - art.5, amendment 9 Legislative Decree no. 50/2016 and subsequent changes and additions - and in the Consolidated Text on public-shareholder companies - Legislative Decree no. 175/2016.

The obligation of completion the public evidence procedures for privatisation operations is included also in the Convention for entrusting the concessions of total management.

Over 2019, no corporate operation of privatisation has started.

### Services of general economic interest within airports

The creation of a Service of General Economic Interest within an airport impose the beginning of a complex and articulated process that, usually, is activated by the Local Authorities (Regions) where the airport is located.

The documentation and the evaluations necessary for the creation of a Service of General Economic Interest are essentially managed by the regional competent bodies with the airport managing body.

In this specific context, ENAC does not have any direct competence and it can be involved, on request of the airport managing body or the regional body, for a collaborative activity aimed at providing general considerations in terms of consistency with the reference regulatory framework that ends with the expression of an advice.

ENAC has not been involved in the creation of any Service of General Economic Interest in 2019.

### MERGER OF GESAC-AEROPORTO DI SALERNO

On October 24, 2019, the merger deed between the company GE.S.AC. SpA (airport managing body of Naples - Capodichino) and the company Aeroporto di Salerno - Costa d'Amalfi SpA (airport managing body of Salerno - Pontecagnano) has been signed in application of the provisions of the amendment 1 of the art. 2 of the Interministerial Decree 14 June 2019 no. 239.

From the merger effective date (November 1, 2019) the company GE.S.AC. SpA took over from the company Aeroporto Salerno-Costa d'Amalfi SpA in both the active and passive deals.

The merger of the two involved companies complies with the strategic goal of realising an integration process and a unified management of the airports of Naples and Salerno in order to capitalise and valorise their complementarity, in a view of integrate planning of services and activities as well as of the related development, in line with the roadmap included in the Memorandum of Understanding approved by the above-mentioned companies together with the Campania Region.

In line with the European and national reference framework, the unified management of the above-mentioned airports is aimed at facilitating the passenger traffic development of a wider catchment by putting to good use the synergies between the two airport infrastructures. This goal will be achieved by developing in partnership the respective potentialities of the two airports, creating economies of scale, pursuing potential specialisations aimed at an optimal use of the airports infrastructures and services.

### MONITORING OF THE HANDLING MARKET

The concept of handling includes all the services within the airport aimed at providing ground assistance to thirds or in self-handling. Handling requires a certification which is issued by ENAC to parties that comply with the requirements of art. 13 of Legislative Decree no. 18/99. The certificate includes the specifications of the airports and the categories of activities listed in Annex A of the Decree no. 18/99 for which the operator has demonstrated to have adequate financial, human, organizational and instrumental resources. It is rather common for certified operators to operate on more than one airport.

#### Ground handling services

- Ground administration and supervision
- Passengers
- Luggage
- Good and mail
- Ramp operations
- Airport cleaning and services
- Fuel and oil
- Aircraft maintenance
- Air operations and crews management
- Ground transportation
- Catering

#### Monitoring

The handling marketing monitoring meets the regulatory provision included in the art. 17 of the Legislative Decree no. 18/99 and art. 50 of the Law no. 99/2009.

149 certifications are valid as of December 31, 2019.

#### Activity of the National Aviation Handling Quality Control Team

The activity of the National Aviation Handling Quality Control Team is aimed at allowing the verification of possession of the economic and financial requirements of the assistance services handlers, under the art. 13 of the Legislative Decree no. 18/99 and the art. 7 of the ENAC Regulation "Certification of ground airport service providers".

In 2019, 3 certificates were issued and 9 were renewed.

### Liberalisation

The airports that reached the traffic threshold laid down by the art. 6 of the Legislative Decree no. 18/99 on the free access to the ground handling services market are:

Bari, Bergamo, Bologna, Brindisi, Cagliari, Catania, Florence, Lamezia Terme, Milan Linate, Milan Malpensa, Naples, Olbia, Palermo, Pisa, Rome Ciampino, Rome Fiumicino, Turin, Treviso, Venice and Verona.

### Limitations

As a consequence of the spaces saturation on the Pisa airport, the investigation carried out by ENAC has verified and confirmed the need to curb the market to two operators for the commercial aviation and two operators for the general aviation as in the following categories: luggage assistance, goods and mail assistance (with regard to the physical handling of the arriving, departing and transiting goods between the terminals and the aircraft) and ramp operations assistance included in the Attachment A of the Legislative Decree no. 18/99.

The airports of Milan Malpensa and Rome Fiumicino have been limited as well: the former one to three operators and three self-handling providers for the commercial aviation and four providers for the general aviation as in the following categories: luggage assistance, goods and mail assistance (with regard to the physical handling of the arriving, departing and transiting goods between the terminals and the aircraft) and ramp operations assistance. The latter has been limited to three operators for the services category of refuelling and oil assistance.

Furthermore, ENAC established the inclusion of the Salerno airport in the limitation provision already in force in the Naples airport. This limitation has been implemented in the framework of the merger process of the managing bodies of the two mentioned airports.

Also, the managing bodies of the airports of Cagliari, Palermo and Bergamo showed some difficulties in performing the handling activities for lack of available capacity and space; in this regard ENAC ordered the appropriate checks on each one of the involved airports.



### AIRPORTS CONCESSION TO THE GENERAL AVIATION

The General Aviation airports are intended to host sport, touristic, training activities, services of aerial work, air rescue, medical emergency, civil defence support, scientific and experimenting activity, business aviation operations included the services of air taxi and any other activity compatible with the airport vocation.

Many of these airports are directly managed by ENAC with its means and staff, however the situation is not bearable anymore cause of the measures to contain the public spending that affect ENAC human resources. However, since these airports are an essential tool for the territory to ensure the aeronautic activities prosecution that are important for the community. Therefore ENAC, in order to guarantee their safe operability and to safeguard the public interest, with the Regulation on Entrustment of state-owned airports for General Aviation, has regulated the entrustment of the General Aviation airports for a 20-year period of time through tendering procedures.

This choice appeared to be unfit for purpose over time due to the non-response of the market to ENAC expectations or to the inability of preparing valid offers under the technical profile.

### INCENTIVE ARRANGEMENTS FOR LAUNCHING AND DEVELOPING ROUTES AND CO-MARKETING

ENAC continues its monitoring action on the national airports in support of the Ministry of Infrastructure and Transport. In particular, as regards the compliance with the ministerial Guidelines – from 2 October 2014 and 11 August 2016, no. 275 - it can be said that the obligation to publish the commercial policies on the managing bodies website has been generally achieved at this point. In fact, the managing bodies publish on their website, on a semi-annual basis, the complete programme of the incentives that they intend to implement for the following year/years.

Specifically, the Guidelines, 11 August 2016, no. 275, establish the principles of transparency and competitiveness only for the identification of the beneficiaries of grants that, not complying with the MEO test (Market Economy Operator), are State aid. At the same time, the Guidelines do not operate any distinction between the typology of the State aid beneficiaries from the juridical, public or private point of view.

Notwithstanding the powers of the Italian Competition Authority, ENAC contributes with the Transport Regulation Authority to the tasks of compliance with the principles of transparency and competitiveness in accordance with the European Commission action that, on this point, insists on the increase of the verifications to discover whether illicit forms of support for companies in the form of co-marketing take place.

## PLANNING AGREEMENTS

### The 2019 regulatory framework

The 2019 has been the last of the four years of the Planning Agreements between ENAC and the managing bodies of the airports of Naples, Bologna, Turin, Trieste, Genoa, Verona, Cagliari, Palermo e Lamezia Terme, under the art. 1 amendment 11 of the Legislative Decree 12 September 2014 no. 133. At the same time, the 2019 has been the connection year during which the above-mentioned managing bodies have complied with the preparatory formalities for the elaboration of the charges revision proposal for the period 2020-2023 and for the consequent subscription of the related agreement renewals.

In this context, over the year, ENAC, in quality of sector Technical Authority responsible for the preparation and the definition of the Planning Agreements, continued to carry out the preparatory activity aimed at the technical approval of the Intervention Plans as well as the Quality and Environmental Protection Plans submitted by the managing bodies of the above-mentioned airports and by ones of Olbia, Pisa and Florence, whose Planning Agreements expired in 2018.

This approval, which is needed by the managing bodies in order to implement the regulatory framework whose first step is the charges consultation, consists in a technical authorisation issued by the ENAC to the managing bodies. This occurs if the four-year planning on the development and modernisation of the airport infrastructures and the quality and environmental protection goals established for the same period, have been verified and positively evaluated, from both the technical and economical point of view.

Among the above-mentioned airports, the ones of Pisa, Florence, Bari, Brindisi, Foggia, Taranto, Treviso, Trieste, Bologna and Turin have completed, in 2019, the consultation procedures with the users and obtained the conformity opinion of the Transport Regulation Authority. Therefore, the new airport charges levels and the related charges came into effect despite the fact that the related Planning Agreements have not been signed yet.

This last aspect related to the mismatch between the come into force of the charges and the signing/approval of the Planning Agreements has fuelled the dialogue with the supervising ministries over the year, also in consideration of the request for an opinion on the

subscribed agreements addressed to Inter-ministerial Committee for the Economic Planning. In a process that is already considerably complex, it generated a further extension of the approval times and the permanence of a stalemate where the Planning Agreements expired without come into legal effect.

The 2019 has also been the year when, for the first time, a small airport like the one of Parma started and concluded the changes updating process and subscribed the Planning Agreement with ENAC.

From the regulatory point of view, the Law no. 37 of 3 May 2019 is of particular importance since it has extended the powers of the Transport Regulation Authority, by transferring to it the role of National Supervisory Authority also in relation to the Planning Agreements in derogation, regulated by the art. 17 amendment 34-bis of the Legislative Decree no. 78/2009 converted with modification by the Law no. 102/2009, previously under ENAC regulatory competences.

A further new element that involved the regulatory structure of the aviation field over the year has been the revision process of the Charges Models, started by the Transport Regulation Authority with the Deliberation no. 118/2019 of 1 August and still ongoing.

Their application will be extended also to the Planning Agreements in derogation on the basis of the above-mentioned regulation provisions and the clarifications provided by the Authority itself within scope of application of the new Charges Models, with the aim of equalising the entire airport sector to the same regulatory criteria and principles established by the Authority in the Charges Models.

However, the implementation of this reform, unfolded over 2020, will have to firstly face the strong heterogeneity that characterises the Italian airport sector, from the dimension and technical-operational points of view, and secondly the peculiarities of the charges regulatory system for the airport managing bodies holder of a Planning Agreement in derogation approved by specific Prime Minister Decrees for the entire duration of the concession, in application of a needed derogation regime in order to promote the infrastructural investments for the intercontinental gates of the Italian airport system.

## Sheet 5.5 Planning Agreements

### Planning Agreements monitoring - Audit on the investments

Within the framework of the monitoring activities regulated by the ordinary and in derogation Planning Agreements and with the goal of enhancing and diversifying the supervisory activities on the commitments made by the managing bodies in the respective Planning Agreements on the development and modernisation of the airport infrastructures, ENAC carried out specific audits activities on investments of the airports of Venice, Milan Linate and Malpensa and Cagliari.

These activities have regarded substantial economical aspects related to the cost of the works included in the final balance and authorised but also more procedural aspects related to the regularity of the contract documents and the works and services entrusting modalities.

In fact, the Planning Agreements establish that the preliminary and final balance declarations attesting the progress of the interventions planned in the Investments Plan approved by ENAC may be subject to specific verifications, also by sampling, conducted by ENAC for each year.

Considered the need to acquire additional evidences on the 2018 final balance data, the above-mentioned verifications have been carried out with particular attention to the interventions included in the exceptional maintenance plan, the amounts available for the contracting authority and the in-house entrusting, where present.

This activity is now operational with audits for all the managing bodies that signed the Planning Agreement and it integrates and enhances the ENAC supervisory activity on the commitments contractually undertaken by the managing bodies.

### Supervision of charges connected to the use of centralised infrastructures, common and exclusive use assets

Under the Legislative Decree no. 18/99 on free access to the EU ground handling services market, ENAC is in charge of checking that the airport users' service charges are in line with the costs incurred with the airport management and the development of centralised infrastructures as well as the common and exclusive used assets. To this end, in 2019, ENAC carried out the supervision on the charges for the fuel storage and distribution activity performed at the airports of Rome Fiumicino, Milan Malpensa respectively

by Seram SpA and Disma SpA.

For the airports of Rome and Milan, it should be noted that setting these charges falls beyond the scope of the Planning Agreements in derogation, since the centralised infrastructure for fuel storage of these airports are fully owned and managed by specialized third parties based on sub-concession contracts.

Moreover, in the framework of the regulatory activities that ENAC is required to carry out in the users' interest on the applied charges for the services provided on an exclusive basis, a supervision activity has been conducted on the airports of Bresso, Capua and Grosseto in order to quantify the charges for the Units of First Aid and firefighting, in accordance with criteria of adequacy and pertinency.

### Supervising activity on handling charges and on Passengers with Reduced Mobility (PRM) charges

About PRM assistance charges and handling rates in monopoly, the EU Directive 2009/12/EC on airport charges expressly excluded them from its scope, since they were already being regulated by the European Directive 96/67/EC of 15/10/1996 (ground handling) and Reg. (EC) no. 1107 of 5 July 2006 (assistance to PRM). Therefore, considered the exclusion from the scope of application of the so-called provision "rights", the airport charges supervision over such activities remains an exclusive prerogative of ENAC and they are not transferred to the Transport Regulation Authority.

Over 2019 ENAC has updated the PRM charges for the airports of Rome, Milan, Venice, Bergamo, Bologna, Cagliari, Naples, Palermo, Turin, Pisa, Florence, Trieste, Verona, Ancona, Catania and Treviso.

### Supervision of air navigation charges

In addition to the surveillance and economic regulation functions of the charges applied by the airport managing bodies to exclusive services, ENAC verifies the air navigation services charges applied by ENAV at national and international level every year. Therefore, ENAC undertook to conduct a preliminary inquiry to determine the "band III" terminal charges for 2020, whose regulation is disciplined at national level, and the yearly monitored tariffs regulated at European level for air navigation services route and terminal charges of "I-II band".

Additionally, in consideration of the approaching end of the Performances Plan Second Reference Period 2015-2019

(RP2), that regulates at Union level the Performance and the Charges systems related to the Air Navigation Services supply. ENAC has elaborated the Third Reference Period of the Plan (RP3) 2020-2024 for the economic aspects of its competence.

### Financial analysis of routes operated in public service obligation regime

In 2019, ENAC has audited the activities carried out by the carrier Mistral Air Srl and Danish Air Transport A/S (DAT), entrusted with the routes to Sicily: respectively Mistral Air Srl for the 2017-2018 and Danish Air Transport A/S (DAT) for the period 2018-2021.

The verifications aimed at ascertaining the reliability, accuracy and pertinence of the costs incurred by the air carriers as well as the coherence of the flying activity carried out, in comparison with the planning expected within the public service obligation, have been preparatory to the acknowledgment of the air carriers remuneration, on the basis of the ministerial decrees on the imposition of public service obligation.

### Yearly traffic and data analysis: innovation and development of the new traffic data acquisition system

In 2019, ENAC published the final traffic data of the commercial and general aviation from the 2018 divided by type of passenger, cargo and mail, national and international, scheduled or non-scheduled.

This data is a useful analytical tool for all operators of the sector, being particularly important at system level to calculate airport charges and the fire prevention contribution to be yearly paid by the managing bodies on the basis of published data.

ENAC uses statistical data on air traffic performance to study the market and the industry and carry out a financial

evaluation of non-EU routes on which it intends to make bilateral air traffic agreements.

In consideration of these important purposes and the constant and new needs and requests that come from both the inside and the different administrations, the realisation of a new traffic data acquisition system, started in 2018 by the airport managing bodies, has been completed in 2019.

It is an innovative computer system, web-oriented and with a share database, based on periodic submission of standardised data through a single modality of transmission on the ENAC institutional platform.

The final traffic data for 2019, published in 2020, will be the first to be published through the new web-oriented system acquisition.

Over 2019, all the managing bodies of the airports open to commercial air traffic have promptly adapted by setting up an internal system to transmit the information following a new record tracking that specifies each single movement and not anymore as aggregated data. In this way the data provided to ENAC includes more details such as the flight number, the passengers on board, the scheduled and the effective time, etc.

New activities of analysis, control and monitoring of the air traffic may be developed on the acquired data and they may be used by ENAC for institutional reports, statistics and researches aimed at satisfying the different regulatory and operators control needs.

The development of the new system has also resulted in a bulk update of ENAC databases in terms of all airports connected with the Italian airports and air carriers providing air services in Italy. This activity will require a regular update in coherence with the ICAO reference documents in order to ensure the correctness of the traffic data published every year by ENAC.



# QUALITY OF AIRPORT SERVICES AND PROTECTION OF PASSENGERS' RIGHTS

## Auditing

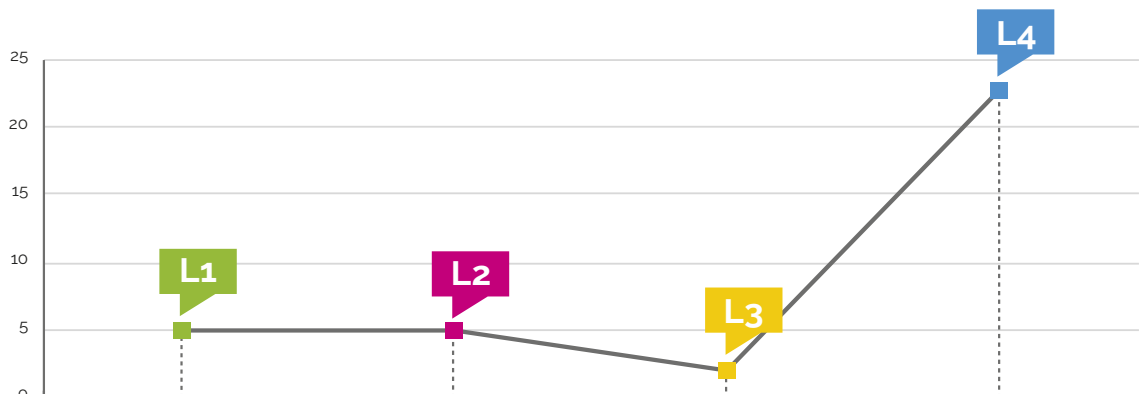
From 2014, the annually planned combined audits - "Quality of airport services and assistance activities to Passengers with disabilities or Reduced Mobility (PRM)" - take place to verify the quality system reliability and the correct application of the EU Reg. no. 1107/2006 about PRM. ENAC auditing activity analyses the elements that contribute to improvement of the service quality offered by the airport managing bodies to the customers: the organisation compliance with the national and international legislation, the effectiveness of the procedures, the appropriate training of the staff devoted to the passengers with reduced mobility, the condition of the infrastructures. The audits are aimed at contributing to the improvement of the organisational and operational efficiency of the supervised subjects. The observations and the potential comments allow the detection of possible interventions in good time in order to correct the criticalities that may prevent the achievement of the planned goals. During the audits, the Quality Management Systems

adopted by the airport managing bodies are analysed together with the ability to prevent and remove the potential non-compliances detected. With regard to the airport management system, the data submitted to ENAC are preparatory to the approval of the Quality Plan included in the Planning Agreement.

The yearly plan of audits and their frequency, exceptional circumstances excepted, is established after the evaluation of the criticalities, the failure to achieve the goals set by the managing bodies, and on the basis of the complaints received in the role of National Enforcement Body for the implementation of the European Regulations 261/2004 and 1107/2006 as well as on the results of the airport inspections carried out by the ENAC Quality Inspectors. In 2019, the combined audits on services quality and PRM assistance activity provided by the airport managing bodies involved the airports of Florence and Turin, together with the ECAC activity called "Quality Assessment Programme" which will be discussed in detail in the following pages.

### Criteria for the allocation of the non-compliances level

DETECTED NON-COMPLIANCES	LEVEL OF CRITICALITY
European/international regulation Italian regulation ENAC Regulations and Advisory Circulars	L1
Technical requirements Infrastructural requirements Organisational requirements	L2
Incorrect application of the procedures	L3
Best practices related observations	L4



The request of corrective actions starts the system improvement process that is one of the major goals of the audits.

### Best practices

The ENAC Audit team considered it appropriate to share its wealth of knowledge acquired during the nationwide audits through an action of dissemination of the best practices detected on the territory:

- Computerisation of the voucher for assistance to passengers in case of disruption (flight delay or cancellation, denied boarding).
- Dissemination of the information on the convenience of booking the PRM assistance service through a flyer to distribute to the passengers which are not pre-notified.
- PRM Pictogram (Passengers with reduced mobility) in the vicinity of the baggage reclaim belt aimed at the creation of a PRM dedicated area to collect their baggage.
- Call points for assistance accessible by every disability typology (e.g. in the Bologna airport).
- Memoranda of understanding/collaborations with public and private transportation companies (bus, train) for a coordinated assistance to PRM.

### ECAC Quality Assessment Programme

During 2019, ENAC has been actively involved in the ECAC initiative in the context of the PRM subgroup of the Facilitation Working Group called "Quality Assessment Programme (QAP)".

The QAP goal is to monitor the PRM assistance services quality provided by both the airport managing bodies and the air carriers on the basis of the Reg. (EC) no. 1107/2006 and the Doc. 30 ECAC, that includes a set of recommendations for the proper delivery of the service from different points of view such as training, way-finding, airport design, equipment, call points, PRM dedicated parking.

In this context, Italy presented itself as hosting Country of the first Quality Assessment Programme by identifying the airports of Bologna and Catania and the air carrier Air Dolomiti and participating in the ECAC Team respectively in quality of National Coordinator and observer.

The three Assessment Programmes have taken place between July and September 2019.

The details related to the ECAC initiative Quality Assessment Programme may be found in the chapter "International Activity".

### GUIDELINES OF THE PLANNING AGREEMENT QUALITY PLAN

The Planning Agreements between ENAC and the airport managing bodies allow the achievement of an update of the airport charges to the costs actually paid by managing bodies and they include the creation of the investments plan and the compliance with the targets of quality and environmental protection.

In 2019, ENAC, on request of Assaeroporti (Italian Airport managing bodies Association) has deemed it useful to revise the Guidelines of the Planning Agreement Quality Plan with the aim of adapting them to the new requirements and the sector changing context. In addition, it was considered that the division in 4 traffic cluster would allow a more detailed monitoring of the quality indicators included in the Plan in comparison with the previous division in 3 thresholds:

1. Cluster 1: Airports with traffic over 15 million of passengers per year;
2. Cluster 2: Airports with traffic between 5 and 15 million of passengers per year;
3. Cluster 3: Airports with traffic between 1 and 5 million of passengers per year;
4. Cluster 4: Airports with traffic below 1 million of passengers per year;

#### Indicators identification

The indicators have been structured in:

1. Primary indicators included in the ENAC Advisory Circulars GEN-06 and GEN-02A, in addition to several quality indicators;
2. Service Charters Indicators and, for the first time, the international Benchmark that recall the indicators used in the programme "Airport Service Quality" (ASQ) by ACI (Airports Council International), which several Italian managing bodies have already joined.
3. Technical indicators.

**Number of indicators**

The number of the indicators took into consideration the airport traffic volume.

**Content development**

The Guidelines revision required the creation of a specific working group.

**Regulatory aspects of coherence and harmonisation**

The aspect of coherence and harmonisation with the Italian and European regulations as well as the ENAC Advisory Circulars have been carefully evaluated considering that:

- many of the indicators included in the Quality Plan are included also in the Service Charter of the airport managing body;
- the Service Charter of the airport managing body is approved by ENAC and the yearly planning and execution of audits (Quality of Services and Regulation 1107/2006) ensures a proper control on the improvement trend of the indicators presented every year by the airport managing bodies, in coherence with the ones included in the Plan, and it monitors their achievement, specifying comments and corrective actions that are required to be implemented by the airport managing bodies.

**Approval of the 2019 Quality Plan**

- Bologna
- Palermo
- Turin
- Trieste
- Verona
- Cagliari
- Genoa
- Lamezia Terme
- Naples
- Olbia

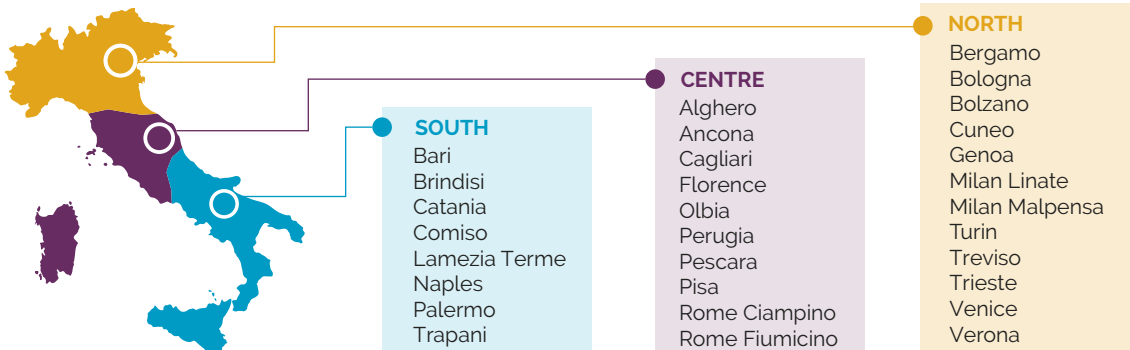
**Monitoring of the indicators of the Objective and Final Quality Plan - 2019**

- Rome Fiumicino
- Rome Ciampino
- Milan Linate
- Milan Malpensa
- Venice
- Catania
- Florence
- Pisa
- Bologna
- Naples
- Lamezia Terme

**Service Charters of the airport managing body**

The airport managing body's Service Charter, released yearly, aims at providing the users with information about the

services quality level and with the improvement objectives for the following year. In 2019, ENAC issued no. 30 Service Charters at the end of the preliminary procedures.



**Services Charter of the airport managing body - Published Quality Factors**

1. Safety of the travel
2. Personal and Patrimonial protection
3. Regularity of Service
4. Cleanliness and sanitary conditions
5. Comfort during the airport stay
6. Additional Services
7. Public information services
8. Front office services
9. Effectiveness of the connections between the city and the airport
10. Assistance Services Effectiveness
11. Personal safety
12. Information in the airport
13. Communication with passengers
14. Comfort in the airport
15. Relational and behavioural aspects

In 2019, 1 Cargo Service Charter has been approved, related to the airport of Milan Malpensa.

**Air carrier Service Charters**

In 2019, ENAC approved the Service Charters of the Italian air carriers that, in analogy to the Charters of Service of the

airport managing bodies, aims at providing information, once a year, on both the quality level of the air carrier services for the current year and the improvement objectives for the following year, in a transparent context. The air carrier Service Charter is an informative tool used by the air carriers through which they undertake commitments towards the customers on the services standards and the modalities to provide the services. The publication of the quality indicators helps passengers being well informed and able to make a conscious choice between the air carriers offers, allowing them to find the most adequate one to meet their needs.

**Published Quality Factors**

1. Regularity and Punctuality
2. Baggage and Mobility Aids (patrimonial protection)
3. Cleanliness and sanitary conditions
4. On board comfort of the travel
5. Customer information
6. Additional Services
7. Relational and behavioural aspects
8. Personal safety
9. Access to information
10. Communication with passengers
11. Aircraft comfort

**AIR CARRIER SERVICE CHARTER**

The Charter is structured in three parts:

- the first one contains a brief description of the purposes and the fundamental principles, such as equality, impartiality, non-discrimination, right to information, continuity, participation, efficiency and effectiveness, freedom of choice, are highlighted. The document includes the company's peculiarities, the fleet numbers, the environmental policies, the useful information and the loyalty programmes;
- the second part is dedicated to the indicators and includes the quality levels definition of the services offered to the users; these are: flight's regularity and punctuality, luggage, mobility aid devices, hygiene and sanitary conditions, customer information and extra services;
- the last part includes information about the complaint procedures: arrangements for the submission, timeline for the resolution and air carrier's conciliation protocols. The objectives success rate compared to the target is monitored by the air carrier by internal audit focused on the performances, in order to define a possible improvement plan.

In 2019 the following Air carrier Service Charters have been approved:

- Air Dolomiti
- Air Italy
- Blue Panorama
- Ernest
- Neos

## Sheet 5.6 Quality of airport services and protection of passengers' rights

**Passengers' rights - Reg. (EC) 261/2004**

ENAC is responsible for enforcement of the rights of Passengers in case of denied boarding, flight cancellation or long delays. When a passenger lodges a complaint, ENAC assesses the possible violations with a view to impose sanctions on the defaulters and monitor the quality of services provided to passengers. ENAC cannot decide on compensation following passengers' claims, nor can it provide legal advice or consulting services.

The handling of complaints that reach ENAC continued over 2019 through an online transmission system of the complaint using specific forms that are available on ENAC website in both Italian and English, in order to facilitate a quicker and more efficient management. In case of an ascertained infringement of the European regulation, the passenger is transparently informed about the beginning of the sanctioning procedure.

Sanctions Reg. (EC) no. 261/2004				
	2016	2017	2018	2019
<b>AMOUNT</b>	€ 362,908.28	€ 108,288.17	€ 262,867.06	€ 280,138.00

Note: The annual amounts do not have a direct correspondence with the number of sanctions undertaken in the reporting year: the sanctioning process is in fact divided into several stages, beginning with the assessment, followed by a phase during which the air carrier has the possibility to submit written pleadings, hearing requests and pay at a reduced rate (oblation). The order for payment or dismissal follows. If a payment order is issued and the carrier does not fulfil it, the order is enforced. The carrier may appeal to the ENAC decision in court with three instances of proceedings.

**Airport inspections carried out in 2019****Management of complaints**

ENAC uses a computerised system for the management

of passengers' complaints, regularly updated for statistic, monitoring and analysis purposes.

Complaint recorded in 2019 - Reg. (EC) no. 261/2004	
Flight cancellation (art.5)	2,952
Denied boarding (art.4)	373
Lack of information on passenger rights (art. 14)	85
Flight delay (art.6)	616
Delay of three or more hours in arrival to final destination compared to the scheduled time	2,591
Delay of two or more hours in departure compared to the scheduled time	1,671
Other	1,509
<b>TOTAL</b>	<b>9,797</b>

**ENAC DATABASE FOR COMPLAINTS AND REPORTS MANAGEMENT**

Since 2006 the passengers' complaints and reports are managed through a database. The complaints and reports submitted by the users using online forms have the function of both allowing a careful control and monitoring of the compliance with the European regulation of passengers' protection and generally evaluating the airport managing bodies and air carriers activities.

The information transmitted by the passengers may contribute in the activation of ENAC inspections aimed at improving the passengers' satisfaction.

The complaints and reports management structure is organised at both local and central level in order to ensure that all the complaints are handled in a complete, prompt and satisfying way. Moreover, the collected information allows the identification of the quantity of complaints related to violations and disruptions, both divided according to the different typologies, for statistical purposes aimed at improving the quality of the services provided by the operators.

With reference to the quality of the airport services, in 2019, 414 complaints have been received, mainly related to the following thematic areas:

1. Absence of the air carrier representative person in the airport
2. Baggage
3. Comfort and efficiency of the airport
4. Disruptions in the purchasing/booking phase
5. Inconveniences for passengers
6. Inefficiency of offices/call centres
7. Air carrier identity information not reported
8. Class downgrading
9. Perception of staff courtesy and professionalism
10. Regularity of the service
11. Safety (including the layout and the aircraft cleanliness)
12. Security
13. Air fares transparency

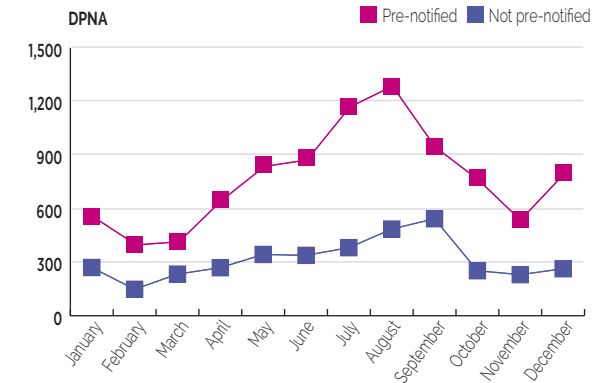
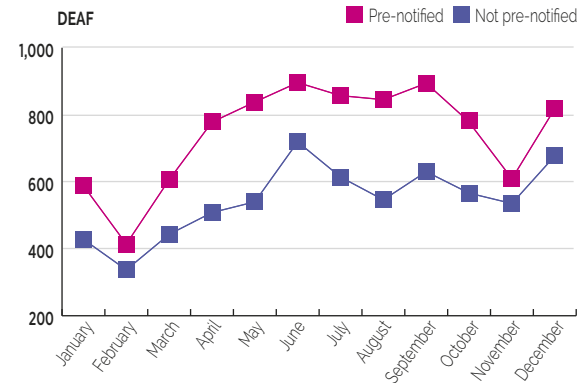
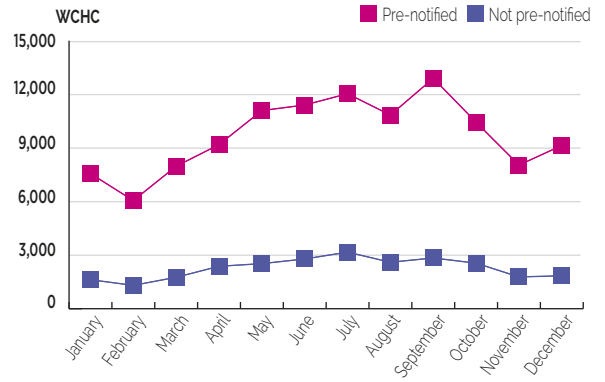
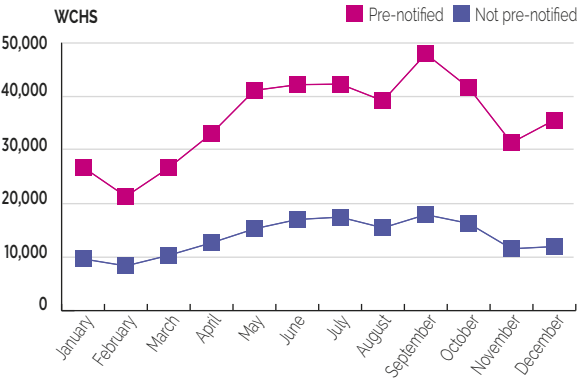
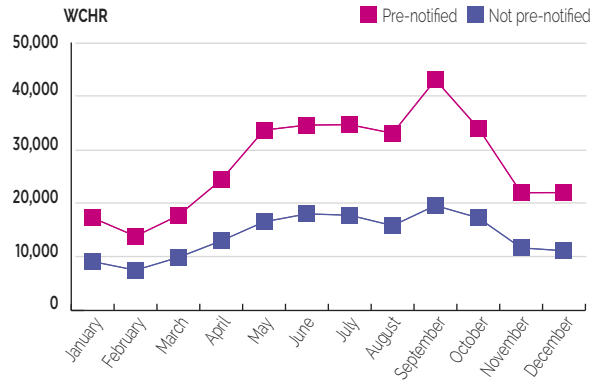
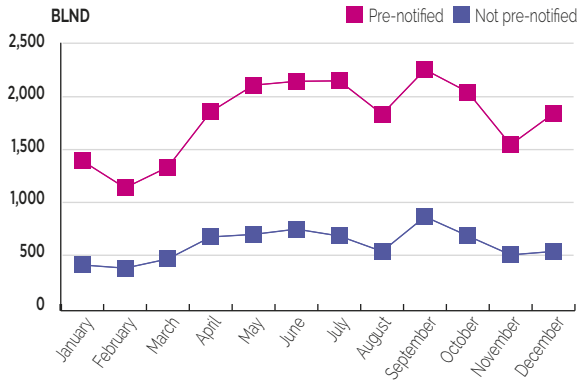
**Rights of Passengers with disability or Reduced Mobility (PRM)**

To ensure that air transport be provided without any discrimination and at no additional costs, the EU adopted some common rules that give Passengers with Reduced Mobility a dedicated assistance in EU airports. The PRM passengers should request this special assistance at least 48 hours ahead of their flight. In Italy, the percentage of

passengers that did not requested the assistance on time were the 30% in 2018 and 29% in 2019. The data is still particularly high and a further commitment is required to all the involved entities (air carriers, airport managing bodies, associations) in order to spread the knowledge and the awareness of the pre-notification importance. It is a fundamental element to improve the quality of the offered service and to avoid cases of denied boarding.



ASSISTANCES PROVIDED IN 2019



LEGEND

**BLND:** blind or low vision passengers.

**WCHR:** passengers with a walking disability who can manage steps and can move unaided.

**WCHS:** passengers with a severe walking disability who cannot manage steps but do not need assistance in the cabin.

**WCHC:** passengers who are unable to walk and cannot move unaided. They need total assistance.

**DEAF:** passengers who are hearing-impaired.

**DPNA:** passengers with intellectual and behavioral disabilities.

**AUTISM, TRAVELLING THROUGH THE AIRPORT**

The activity of ENAC in the project Autism has continued also in 2019 and it obtained the participation of additional airport managing bodies. The project, created in 2015, in the result of the activity of ENAC in collaboration with ASSAEROPORTI and the main sectors Associations. The continued interest for the initiative, which has a consolidated social importance, by the insiders and the involved families is the evidence of ENAC sensitivity to passengers with disability or reduced mobility needs.

The initiative wants to offer some easy advices to help autistic people and their helpers to engage serenely the travel experience, for example offering them the possibility to visit the airport in advance through a procedure created by ENAC. The airport managing bodies facilitated the familiarisation with the complex reality that the majority of the autistic people may perceive, causing them a possible discomfort, by publishing information, videos, typical airport sounds and noises on their websites.

The airport managing bodies that joined the project organised the reception of autistic people by preparing the units, the services and the specialised staff.

In 2019, the managing bodies of the airports of Bologna and Catania joined the project.



**The Project Autism  
is operational as of  
31 December 2019**

BARI, BRINDISI - AEROPORTI DI PUGLIA  
BERGAMO - SACBO  
BOLOGNA - AEROPORTO GUGLIELMO MARCONI DI BOLOGNA  
FLORENCE AND PISA - TOSCANA AEROPORTI  
MILAN LINATE AND MALPENSA - SEA  
NAPLES - GESAC  
OLBIA - GEASAR  
ROME FIUMICINO AND ROME CIAMPINO - ADR  
TURIN -SAGAT  
TRAPANI - AIRGEST  
VENICE - SAVE  
CATANIA - SAC

During 2019 the airports of Verona and Cagliari started the activities necessary for implementation of the project and they have officialised their participation in the first months of 2020.



6

AIRSPACE REGULATION

Sheet 6.1

137

Regulation and planning activities



## REGULATION AND PLANNING ACTIVITIES

### National airspace management

In application of the Reg. (EC) no. 2150/2005 regarding common rules on Flexible Use of Airspace, ENAC has started in 2019 a reconsideration of the entire structure of the national airspace with the Italian Air Force. In the context of the provisions of the above-mentioned regulation, in particular at strategic level, a Technical Committee, in which also ENAV participates, has been constituted in order to analyse the use of those volumes of airspace dedicated to specific activities with the aim to optimise the national airspace structure and achieve a more efficient use.

During the year, ENAC participated in the FRONTEX and EMSA (European Maritime Safety Agency) community operations aimed at patrolling the territorial waters with regards to illegal immigration.

In accordance with its institutional role, ENAC prepared appropriate structure of airspace to carry out these operations and the whole process has been relevant considered the involvement of many institutions, also international ones.

The activity related to the airspace regulation and segregation, disciplined in various ways through the specific ENAC Advisory Circulars (ATM-03 and ATM-05), is ensured by ENAC subject to a close cooperation with both the applicants and the National Service Providers or other National Administration (e.g. Prefecture and Department of Prison Administration).

Also, in 2019 over 250 requests to institute/extend the validity/modify/cancel the restricted zones for the different flight activities such as parachuting, aerobatics, aerial work activity and aero club, model airplanes activity and Remotely Piloted Aircraft (RPA), recreational and sport flight, laser beam emission, weather balloon.

Considering the sites of Community interest (SCIs), the submission of applications aimed at the following publication of the related no-fly zones has continued.

Further requests of protection of natural parks or wildlife reserves, common interest areas (monument zones) or areas of special interest (technological and industrial plants) have been analysed.

The main measures that have been issued are those regarding the park of Po River in the area of Alessandria and Vercelli, the natural reserve of Torbiere del Sebino, the Regional Park of Conero, the National Park of Apennines of Tuscany and Emilia.

Currently, it is still under evaluation the request of Lazio Region in 2019 to create a no-fly zone over the Parks and/or natural monuments of the Region for a total number of 77 provisions to issue successively.

Of no less importance are all the preparation/coordination activities related to specific measures on the usability of the airspace at relevant events (visits by Heads of State) and/or activity of interest also for the EU Community (Terra dei fuochi, patrolling of the Mediterranean Sea for institutional scopes, drills/experimentations).

### Remotely Piloted Aircraft (RPA)

Over 2019, the Remotely Piloted Aircraft or drones, have further consolidated their position as emerging field not only for the civil aviation, becoming important elements also in other sectors of modern society.

For this reason, in 2019, ENAC gave the utmost importance to the development of regulations in order to support in the most adequate way the rapid evolution of this field. In May 2019, it has been published the Advisory Circular ENAC ATM-09 "Remotely Piloted Aircraft (RPA) - Criteria for the use of airspace", essential for drone operations. The Advisory Circular defines the airspace volumes where it is allowed to operate RPA without the need of any authorisation and these volumes are those which are requested by the operators in the majority of cases.

This simplification has led to a relevant streamlining of the procedures to carry out drone activities.

The next goal of the Advisory Circular is to further increase the volumes of airspace where it is allowed to fly without any preliminary request.

The publication of the Advisory Circular ENAC ATM-09 made also necessary an amendment to the ENAC Regulation "Remotely Piloted Aerial Vehicles", published in December 2019.

Besides to this national regulation, the Advisory Circular refers also to the European regulation issued by EASA, specifically to the Reg. (EU) no. 2019/947, regarding geographical areas where the State can forbid or regulate the access to drones due to motivations of safety/security, privacy, personal data protection, public order or environmental protection.

ENAC has also actively participated in EASA working groups aimed at the definition of the European regulation on the category of Remotely Piloted Aircraft to be certified.

## Sheet 6.1 Regulation and planning activities

### Performance Based Navigation (PBN)

Over 2019, new flight procedures based on the GNSS (Global Navigation Satellite System) have been implemented, on the basis of the agreement with ENAV. The approaching, landing and take-off procedures based on the GNSS are becoming always more widespread on the Italian territory. In particular, at the Pantelleria airport, where there is not any Instrumental Landing System to support or backup, the first GNSS procedure of approaching and landing as primary navigation equipment has been implemented.

This configuration is more useful in smaller airports where the installation of an Instrumental Landing System is not always convenient.

The PBN flight procedures are regulated by the Reg. (EU) no. 2018/1048 that establishes the requirements for airspace use and the operational procedures for the PBN navigation. This regulation includes a national transition plan aimed at meeting the planned deadlines to draft within 2020.

Also as part of the satellite procedures, Italy is very active also in the helicopter field where the new concept Point in Space (PinS) finds application. It is particularly suitable for instrumental operations in conditions of low visibility and low altitude and in 2019 the GNSS PinS Trento – Cles procedure has been published, becoming one of the first in the world.

### FREE ROUTE AIRSPACE (FRA)

In 2019, the great environmental success of the Free Route Airspace (FRA) has continued. Within it, the aircraft can fly direct routes between two points without predefined route restriction (ATS routes), reducing the miles of navigation with a consequent reduction of the CO<sub>2</sub> emission and saving fuel.

The Free Route Airspace attracted in the Italian airspace a high commercial traffic, otherwise addressed to the contiguous airspaces, increasing the Italian contribution in the management of the air traffic fluxes in Europe.

### SINGLE EUROPEAN SKY (SES)

The Single European Sky (SES) is a flagship European initiative aimed at reforming the EU air traffic control system such as to meet future requirements in terms of capacity and safety. Compared to the 2000 traffic levels, the full implementation of the SES is set to strengthen safety by ten times, tripling airspace capacity, reducing air traffic management costs by 50%, reducing the impact of each flight on the environment by 10%.

In order to reach the goals, the SES is based on four pillars:

- 1. Functional Airspace Blocks (FAB):** under the SES, the national bodies involved with air traffic control will work together in regional functional airspace blocks such as to improve efficiency, cut costs and reduce emissions.
- 2. Objectives:** the established fundamental performance objectives have to be achieved nationally or within the FAB and these are related to safety, capacity, economic efficiency and environmental impact. All the objectives stimulate the reform process while the other parts of the initiative are aimed at its implementation. National targets are set by each Member State based on EU-level targets agreed with the European Commission.
- 3. Network Manager:** Eurocontrol, the network manager, supports the process with tasks such as the design of routes or the coordination of radio frequencies that are more efficient if managed centrally. It is also responsible for coordinating air traffic flows between national service providers.
- 4. New technologies:** all of this depends on the success of the installation phase of SESAR, the technological arm of the Single European Sky. It will modernise the current systems and procedures that have been operational for decades, considered the difficulties to implement technological changes while ensuring a global interoperability.

**FAB BLUE MED**

The Blue Med Functional Airspace Blocks is the airspace block established in 2012 by Italy, Malta, Greece and Cyprus. In Europe, in conformity with the article 9a of the regulation of the European Council and Parliament 550/2004 about the services supply of 10 March 2004, 8 more FAB have been established. According to the European Law a FAB is an airspace block based on operational requirements that operates beyond State boundaries. The provision of performance-driven and optimized air navigation services and related functions is aimed at enhancing cooperation among providers of air navigation services or, where appropriate, integrated providers, in each functional airspace block. With the establishment of Blue Med, the Countries of Italy, Malta, Greece and Cyprus have made an important step towards the integration of service providers in the South-Eastern Mediterranean, a process that may be extended to other Countries.



Source: Eurocontrol

Many Countries have expressed a marked interest in the initiative, such as Israel that already participates as an observer in FAB works and in addition to other benefits for air traffic, it would serve as a concrete measure to help stabilize an afflicted area.

In Blue Med FAB, Italy is represented by ENAC within its Governing Board and Committee of Supervisory Authority (NSA Committee); by the Italian Air Force and ENAV in the Committee for civil-military cooperation and, finally, by ENAV in the Committee of Air Navigation Services Providers. ENAC also participates in the FAB workgroups that require a representation of national Authorities.

**Union Law**

Over the year, two key regulation on airspace management have been published:

- Implementing Regulation (EU) no. 2019/317 of the Commission of 11 February 2019 that establishes a performance and charging system in the single European sky and abrogates the implementing regulations (EU) no. 390/2013 and (EU) no. 391/2013.
- Implementing Regulation (EU) no. 2019/123 of the

Commission, of 24 January 2019, that established detailed norms for the implementation of the air traffic management (ATM) network and abrogates the regulation (EU) no. 677/2011 of the Commission.

On the basis of the regulation on performance and charging systems, the Member States, included Italy, have prepared a draft of the Performance enhancement Plan for period 2020 – 2024, currently under examination of the European Commission.

**ENAC REGULATION ON AIRSPACE FIELD ISSUED IN 2019**

Regulation "Remotely Piloted Aerial Vehicles"  
Ed. 3 of 11 November 2019.

Advisory Circular ENAC ATM-09 of 24 May 2019  
Remotely Piloted Aircraft (RPA).  
Criteria for the use of airspace

7

# ENVIRONMENT

Sheet 7.1

141

Environmental protection



# ENVIRONMENTAL PROTECTION

## Participation in the CAEP ICAO

The Italian commitment in the CAEP ICAO - Committee on Aviation Environmental Protection - and its subgroups continued also in 2019 through the activity of the Italian Civil Aviation Authority. The Committee, funded in 1983, is in charge of developing, for the ICAO Council, the technical analysis necessary to adopt or revise the legislation on environmental protection in air transport included in the Annex 16 of the Chicago Convention.

In 2019, the 12<sup>th</sup> CAEP cycle has started and it has established a working plan for the next three-year period. The participation in the CAEP is ensured by the ENAC specialists, that besides securing a seat for Italy, promote the activities in the Committee subgroups for:

1. The CORSIA - Carbon Offsetting Reduction Scheme for International Aviation;
2. The ACT - CORSIA Support Project;
3. The Italian Action Plan for CO<sub>2</sub> emissions reduction;
4. The ICAO States' Action Plans Buddy Partnership;
5. The CO<sub>2</sub> emissions and their monitoring;
6. The Sustainable fuels for international aviation (above all those useful for the CORSIA system);
7. The Aircraft noise (in particular supersonic aircraft).

The CAEP works in close collaboration with the other UN Agencies in charge of climate change, such as the UNFCCC (United Nations Framework Convention for Climate Change). In addition to this, the Committee intends to activate, following the indications of the Council, a work project denominated GAEP (Global Aviation Environmental Plan) that, along the same lines of similar projects on safety and security already started, intends to provide the Member States with a global foresight of the ICAO commitment in the activities of environmental protection in international civil aviation.

Another theme treated by the Committee and debated during the 40<sup>th</sup> ICAO General Assembly in September 2019 with a dedicated resolution, is the one related to the launch of a feasibility study aimed at presenting, in occasion of the next Assembly, useful proposals to elaborate a Long-Term Aspirational Goal for CO<sub>2</sub> emissions reduction in International Aviation. The work programme related to the development of these proposals has already been launched with the identification of a Task Group that will disclose the planned activities during the next sessions of the ICAO Council.

## CORSIA - Carbon Offsetting Reduction Scheme for International Aviation

CORSIA is the global scheme based on the market measures that, together with other environmental actions (technological development, use of alternative fuels, routes optimisation), will help achieve the goal of zero growth of CO<sub>2</sub> emissions from 2020. The Standard on CORSIA, approved in June 2018 by the ICAO Council, is included in the Volume IV of the Annex 16 of the Chicago Convention. The CORSIA is part of the European framework of air emissions regulation disciplined by the Emissions Trading system, to which several European and international air carriers are already subject. To this end, over 2019, the European legislative process of implementation, planned for this launching phase of CORSIA, has been completed with the Delegated Regulation (EU) no. 2019/1603. Ultimately, in the European Union, CORSIA is implemented by the Emission Trading System (ETS).

The ETS Committee, formerly called Competent National Authority for ETS management, took over the role of Competent Authority also for the implementation of CORSIA in Italy, with the technical support of the Ministry of Infrastructure and Transport and ENAC.

The preparatory activity for the implementation of CORSIA has started on the 1<sup>st</sup> of January 2019 and the pilot phase will start in 2021. In particular the competent authorities of the ICAO Member States requested their air carriers to begin the monitoring and the count of the emissions produced by international flights that will be the baseline for the future compensations.

Therefore, ENAC kept supporting the ETS Committee in the planned activities related to CORSIA (analysis and evaluation of the Monitoring Plans submitted by the Italian air carriers), the regulatory aspects (request for additions and/or modifications to the Delegated Act) and the training and information activity dedicated to the users and in particular to the operators.

In parallel with the national initiatives to support the air carriers, over 2019, some training and informative meetings on the ICAO activity have been organised thanks to the ENAC contribution as part of the support programme ACT - CORSIA - Assistance, Capacity-building and Training on CORSIA.



### ACT Support project - CORSIA

In 2019, following the implementation of the ICAO Assembly Resolution A40-19, the initiatives to share as much as possible the information on CORSIA and to develop and familiarise with the tools that allow the emissions evaluation, have continued.

ICAO, using both the funds and the human resources made available by donor States, including Italy, has particularly promoted the knowledge of Standards and Recommended Practices included in the Volume IV of the ICAO Annex 16 and the Environmental Technical Manual. The initiative has been focused on the use of computer-based tool to report and estimate the emissions (CERT) and on the CORSIA Central Registry (CCR) managed by ICAO. In parallel, thanks to the work of the CAEP groups, the study on the criteria of the Eligible Emissions Units and on the Eligible Fuels has evolved. These two last aspects are still object of work, but their definitive adoption is expected to take place during 2020.

With the aim of promoting the understanding of CORSIA, ICAO has produced some brochures, leaflets and videos as well as it has organised some seminars at regional level and some others dedicated to different specific geographical realities. One of the key elements of the ACT

- CORSIA second phase has been the development of partnership agreements focused on some Countries of Africa, Latin America and Central Asia aimed at promoting and speeding up the participation in CORSIA on a voluntary basis from 2021, anticipating the compulsory affiliation, and maximising the environmental benefits produced by CORSIA. These initiatives will continue also over 2020, with further assistance sessions to States, in particular in relation to the use of the CCR. In 2019, Italy has been one of the greatest contributors to the phase 2 of the ACT - CORSIA: thanks to the economic support that Italy made available to ICAO it has been possible to execute interventions in 7 Countries, registering a considerable acceleration of their participation in the CO<sub>2</sub> Global Reduction Scheme.

### Italian Action Plan on CO<sub>2</sub> emissions reduction

The reduction of the emissions of greenhouse gas produced by the air traffic represents one of the ICAO main goals in order to limit the negative effects of the climate change caused by human activities.

Even though the civil aviation CO<sub>2</sub> emissions are just one fiftieth of the emissions generated by human activities, ICAO encourages the States to promote a set of measures aimed at achieving, on the long term, the neutrality of the emissions produced by civil aviation and an eco-sustainable management of the entire system. One of the desired goals is to change the perception of the civil aviation, making it an example of good management of the technological progress and take the guiding role towards the eco-sustainability of other technological fields as well. In December 2018, ENAC published the new edition of "Italy's Action Plan on CO<sub>2</sub> emissions reduction", in line with the most recent edition of the ICAO guidelines (DOC 9988). In this way Italy has become one of the Countries that contributed most in the Action Plans development, providing also direct and indirect support to other Countries.

A new update of the Action Plan is expected to be prepared in 2020 and its structure will be revised taking into consideration the greater harmonisation with the environmental projects developed by the European Union and the other Member States.

### ICAO States' Action Plans Buddy Partnership

Following the partnership agreement signed in 2018 with the Madagascan Civil Aviation Authority within the Buddy Programme, ENAC opened a communication channel with

the Madagascan managers with the aim of including Madagascar in the list of Countries equipped with an Action Plan in order to manage and monitor the civil aviation CO<sub>2</sub> emissions. Therefore, ENAC provided assistance to its Madagascan counterpart in order to plan and collect the data necessary for the realisation of the project.

### CO<sub>2</sub> emissions and monitoring

In view of the next update of National Action Plan to reduce CO<sub>2</sub>, ENAC continues the collaboration with ENAV, industry, Assaeroporti and European Union for planning the collection of the information to be included in the Plan. With this aim, in 2019, it has been realised a study collaboration with ENAV that allowed a quantification of the benefits in terms of emissions deriving from the air traffic management optimisation and, in particular, with reference to Performance Based Navigation, the Continuous Climb and Descent Operations (CCO and CDO), the free-route

airspace (FRA-IT) and the Airport Collaborative Decision Making (A-CDM), where some procedures to reduce the taxing time have been implemented.

Therefore, it has been possible to determine the environmental contribution obtained thanks to these measures by comparing it with the emissions produced by the Italian and non-Italian aircraft that use the services of the Italian airspace.

In particular, the efficiency measures of the conventional routes already realised or in progress have been analysed in the scope of application of the ENAV Flight Efficiency Plan, by quantifying the CO<sub>2</sub> emissions saving expressed in terms of tons/year and by identifying any possible action to be implemented in the future.

415,000 tons is the overall estimated reduction of CO<sub>2</sub> coming to light from the four analysed measure and the data collected in 2018, broken down as follows:

Measure	Saved fuel	Overall saved fuel	CO <sub>2</sub> reduction	Overall CO <sub>2</sub> reduction
PBN	15,880 t	<b>137,890 t</b>	50,000 t	<b>415,000 t</b>
CCO/CDO	70,000 t		200,000 t	
A-CDM	9,300 t		30,000 t	
FRAIT	42,800 t		135,000 t	

The quantity of saved fuel is equivalent to fuel necessary for almost 79,000 flights from Rome Fiumicino to Milan Malpensa operated with an Airbus 320.

A further development of the project to take into consideration and try to forecast and quantify a sets of optimisation measures of the air traffic management is under study, in the view of the implementation of the Aviation System Block Upgrade (ASBU).

### Sustainable fuels for the International Civil Aviation

The development and the implementation in the air transport of fuels that ensure a reduction of greenhouse gas is considered to be one of the primary objectives to guarantee the efficacy of CORSIA. ENAC has continued its collaboration with ICAO in preparation of the certification and sustainability scope of these fuels.

Among the instruments identified by ICAO in order to achieve the goal of Carbon Neutral Growth from 2020, the most efficient ones to limit the emission are those related to the technological improvements of the world air fleet, the routes optimisation and the use of sustainable fuels, all included in the so-called "Basket of Measures".

In the ICAO context, the peculiarity of these fuels consists in the possibility of ensuring emission levels that are at least the 10% lower than the conventional fossil ones, taking into consideration that these emissions are calculated on the fuel life cycle, in other words throughout the entire production chain.

With reference to the sector of the international Civil Aviation, currently, the work in progress is mainly aimed at establishing the sustainability framework: the ICAO group work named "Fuels Task Group" is evaluating the sustainability principles applicable to fuel that are



## Sheet 7.1 Environmental protection

alternative to the ones produced from crude oil, the so-called Sustainable Aviation Fuels and, at the same time, those applicable to the Lower Carbon Aviation Fuels (fossil fuels with low emissions). The goal is to develop the supporting material for the Standards and Recommended Practices by the end of the CORSIA pilot phase (2021-2023). Therefore, from 2023 it will be possible to use the emissions compensation provided by the use of these fuels within the framework.

Obviously, the field activities and studies do not involve only the regulation scope, but they include, more generally, also the potential technological developments and the research activity.

For instance, in Italy, ENAC monitors a project for the production of biofuel from microalgae, whose first phase, just concluded, was focused on the identification of a high efficiency algae for oil production from which it is possible to extract biojet fuel.

The second phase of the research project is aimed at developing a pilot production plant to better define the potential productive capacity, in the view of a possible extension of this production to industrial level.

### The aircraft noise

One of the most important environmental problems for the community of persons that lives in the vicinity of an aerodrome is related to the noise produced by aircraft during flight operations such as take-off and landing. In this context, ENAC, in its role of Italian Aviation Authority, issues a Noise Certificate for the aircraft registered in Italy. This document, issued when the aircraft meets some precise approved requirements, certifies that the maximum levels of produced noise are within defined limits.

These noise limits, together with the procedure of noise certification, are described in the Vol. I of the ICAO Annex 16. The updates of the Vol. I are monitored by the Work Group ICAO WG1, where ENAC has an active role representing Italy. The first edition of this document, released in 1971, has been modified multiple times in order to reduce over time the maximum Decibels admitted and it pushed the aircraft and helicopters manufacturers to continually reduce the acoustic emissions of their products. In general, the noise performance takes place following the ICAO philosophy of balanced approach: it consists in the implementation of technological improvements in the aircraft (noise reduction at source), planning and management of the territory, use of specific operational procedures to reduce the noise and, ultimately, if these measures are not considered enough, application of

operational limitations.

Looking towards the future of air transport, several aircraft manufacturers are proceeding with a project of next generation supersonic aircraft that use the so-called low boom technology. Differently from the Concorde, the design concept is based on the fact that these aircraft, producing a reduced sonic boom, may be authorised for supersonic flights not only over the sea but also over the mainland.

The development of new supersonic aircraft, whose entry into service is expected to take place over this decade, poses a new type of problems to take into consideration. The sonic boom phenomenon during flights at supersonic speed would also impact areas far from the airports that however are located along the flight routes.

In this context, ENAC provides an active contribution together with the main Aviation Authorities such as FAA, EASA and Transport Canada, as well as manufacturers like Boeing, Airbus, NASA, General Electric, Rockwell Collins, Pratt&Whitney, etc.

The possibility of designing aircraft that produce low boom is being studied and a clear understanding of the conditions under which this phenomenon occurs and propagates in the atmosphere, is the main challenge of these projects that are required to ensure environmental sustainability and, more generally, their acceptability from the international community.

### ECAC and European Union

In the European context, the activity of ENAC has continued in the European Aviation Environmental Group (EAEG), set up under the presidency of an ECAC/EU Member Country and European Commission DG MOVE.

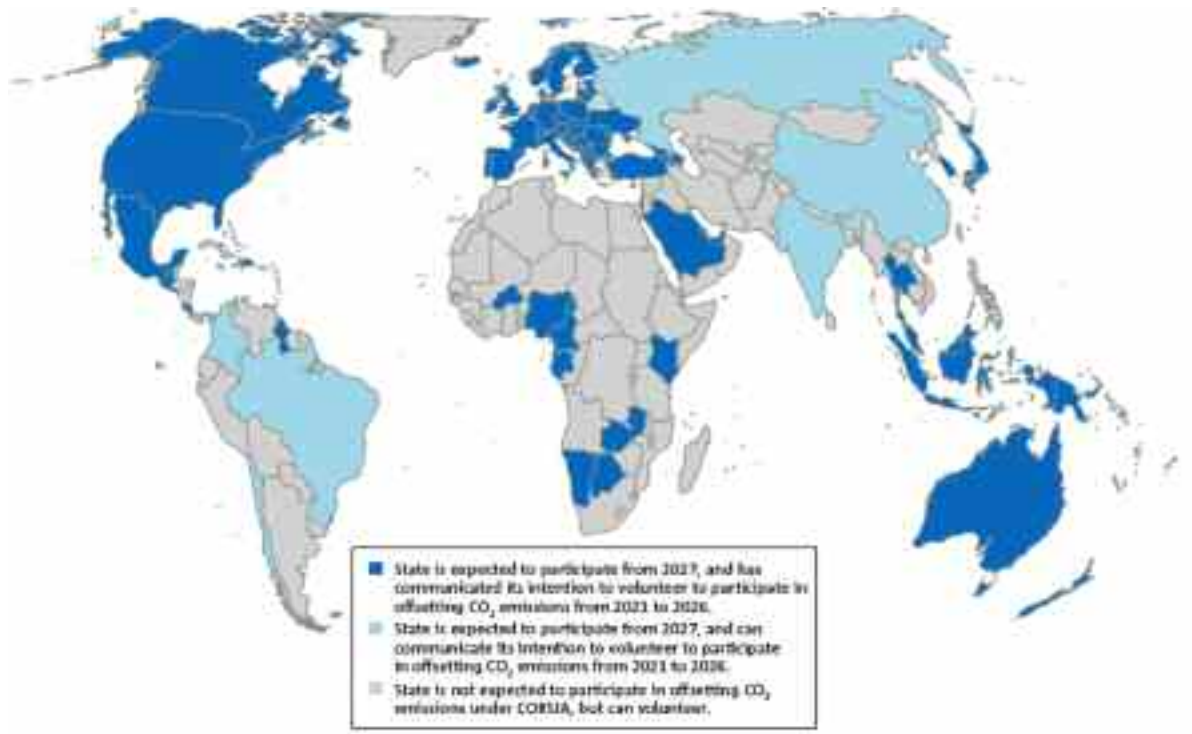
The covered topics reflect those treated in the CAEP ICAO scope and their coordination at European level allows the elaboration of shared strategies, useful for the discussion that take place at global level. The aspects related to noise reduction rather than possible restrictions in terms of airports operativity are handled by the regulator through EASA, which collaborates with DG MOVE and DG CLIMA in the European processes of international standards transposition. In the last years, also Eurocontrol has made investments in resources specialised in the environmental topics in order to ensure the technical contribution on routes optimisation and the continued improvement of the air navigation tools, precisely to reduce the greenhouse gas emissions.

As part of the activities promoted by EASA in the environmental field in which Italy participates as Member

Country through ENAC, the transposition of the standards adopted by ICAO in the European legislation received a particular attention. This legislation will be included in the Regulation (EU) no. 2018/1139 that is expected to consider the modifications of the basic regulation parts regarding the Volumes I, II, III of the Annex 16 of the Chicago Convention. A Decision on the certification specifications of aircraft in relation to the CO<sub>2</sub> emissions was adopted already in 2019.

Italy collaborates also in the revision of the EAER, biennial

environmental report published by EASA in its second edition, that is aimed at describing the activities carried out by the Agency, at European and International level, on the major current topics on the environment, from the certification of supersonic aircraft to the requirements for the CO<sub>2</sub> emission, from the participation in the ECO label programme for the new generation aircraft to international cooperation projects aimed at familiarising with the global system of monitoring, compensation and reduction of CO<sub>2</sub>: CORSIA.



### SEMINAR ON "AERONAUTICS AND ENVIRONMENT: THE SUSTAINABLE DEVELOPMENT OF CIVIL AVIATION"

Taking into consideration the increasing interest on environmental protection themes from the public opinion, ENAC has promoted an informational seminar with the aim of illustrating the main problems treated by the international community and the methods that are implemented to achieve a sustainable development of the civil aviation system.

During the seminar, organised in collaboration with the Association of Engineers of the Province of Rome, an overview on the more environmental impactful themes has been provided: from the noise produced by the civil aircraft to their emissions of both particulate and CO<sub>2</sub>, describing the potentialities offered by the use of the Sustainable Aviation Fuels (SAF) and discerning the carried out actions to limit the polluting factors through the illustration of the ICAO-CORSIA and EU-ETS schemes and their implementation modalities as well as the National Action Plan on CO<sub>2</sub> emissions.

Furthermore, the ENAC project on the production of biofuel from microalgae has been carefully described.

8

# INTERNATIONAL ACTIVITY

Sheet 8.1

147

**ENAC in the  
international context**



## ENAC IN THE INTERNATIONAL CONTEXT



In carrying out its institutional mission, ENAC represents Italy in the major international civil aviation organizations such as the International Civil Aviation Organization (ICAO), the European Civil Aviation Conference (ECAC), the European Union (EU), the European Aviation Safety Agency (EASA) and the European Organisation for the Safety of Air Navigation (Eurocontrol). ENAC cooperates with these institutions in all activities aimed at regulating and controlling the sector and promoting the development of civil aviation. Within these organizations, ENAC supports the position of Italy on various issues of strategic interest such as safety, security, quality of airport services and enforcement of passengers' rights, the development of airport infrastructures, economic and air transport regulation, EU External Relations, airspace regulation and environment.

The most relevant international events of 2019 have undoubtedly been the 40<sup>th</sup> ICAO Assembly and the election to the position of ICAO President for the three-year period 2020-2022 of the Eng. Salvatore Sciacchitano, former Vice Director General of ENAC. These events sealed an extremely positive moment for Italy and ENAC in the panorama of the international civil aviation and the Focus of this edition is dedicated to them.

With regard to technical assistance, ENAC has won the twinning project with the Lebanese civil aviation Authority, funded by EU. The Twinning project involves the mentoring of the Lebanese Authority with the aim of developing, harmonising and implementing the aviation field technical regulation and the related training. The purpose is to support the Lebanese Authority in the approximation to the

EU regulatory framework on State Safety Program, airworthiness, flight operations, flight licences, airspace, airports, security, occurrence reporting, quality, internal organisation and safety management system. The project, funded by EU with € 1.2 million, has a duration of 24 months and it has been implementing since the 23 of September 2019. The project is led by a Project Leader who benefits from the operational management and coordination provided in Beirut by an ENAC professional in the role of Resident Twinning Adviser. The ENAC Team is made up of 18 specialists, including engineers and inspectors that follow one another in missions dedicated to transfer of ENAC expertise.

Among the most relevant activities at European level in the aviation training field, there are the two events organised by EATEO - European Association of Aviation Training and Educational Organisations: the international seminar "Training for new technology in aviation", hosted in ENAC Headquarters in Rome on the 28 June 2019, and the international forum "Enhancing safety through effective training", hosted in Eurocontrol Headquarters in Brussels on the 6 November 2019.

In particular the seminar that took place in Rome has been focused on the challenges coming from the use of new technologies, tools and methodologies in aviation training, highlighting how the continuous increase of air traffic, which is expected to double by 2030, requires the use of additional staff in the aviation sector such as pilots, air traffic controllers, engineers, administrative and technical staff. The consequence of that is the need of training the personnel necessary to face the traffic growth, in full

## Sheet 8.1 ENAC in the international context

compliance with the training requirements established by the international and national Regulatory Authorities of the sector. The forum highlighted also the need to ensure the training, at global level, of qualified and competent aviation personnel, enhancing the collaboration and the coordination of all the protagonists of the civil aviation system, and it is precisely in this process that Eurocontrol may play a significant role.

EATEO, the European association that gathers the organisations that treat the aviation training topic, is a non-profit founded in Cyprus in June 2016, in order to create a shared forum for all the European aviation training providers. The goal is to contribute, as an association, to the safety and the civil aviation development, by coordinating the shared position to represent in the European and international meetings. The national and local bodies, universities, schools and European institutions involved in educational and training activities in the aviation field, also from other continents such as Africa, and Arabia, can become EATEO members or observers.

Among the internationally relevant activities that took place in Italy, it is worth remembering the International Air Transport Association - IATA Legal Symposium, the main international conference dedicated to Aviation Law aimed at lawyers, professionals, air carriers legal counsel as well as regulators and policymakers that happened in Rome from 6 - 8 March 2019.

The ENAC Director General opened the Symposium that this year examined the main emerging challenges of the regulatory activity of the aviation and airspace sector. The Director General, Alessio Quaranta, highlighted in particular the future challenges posed by the cooperation agreement signed in 2014 between the Italian Civil Aviation Authority and the Federal Aviation Administration (FAA) for the development of the legislation applicable to the commercial airspace transportation based on suborbital flights.

The Symposium addressed several themes such as drones regulation and new air transportation models, privacy and security criticalities posed by the emerging technologies aimed at improving the passengers travel experience, the sanctions applicable according to the different Countries' jurisdictions to air carriers, the future of competition among the air carriers and the predominant industrial dynamics (mergers, alliances, antitrust immunity and market access), airports privatisation and the agreement to entrust airport concessions.

## Italian Permanent Representation to ICAO

The Ministry of Foreign Affairs and International Cooperation and ENAC represent Italy in ICAO's Council, governing body of the Organisation. In 2019, the Italian Representation participated in all the Council sessions, providing its contribution to deepening the treated topics, also on the basis of the Ministry of Foreign Affairs guidelines and the technical support of ENAC specialists. It has actively collaborated with the other European members in the EU coordination bodies and with the Permanent Delegations Representatives in the related committees: Air Transportation, Unlawful interferences, Management of the relationship between the Organisation and Canada, Air Traffic Support in North Atlantic. Moreover, the Delegation participated as observer in the meetings of the Air Navigation Commission (ANC), main technical body that support the Council and the related Committees.

A relevant part of the 2019 activity has been dedicated to the campaign for the Presidency of the ICAO Council of the Eng. Sciacchitano, Head of the Delegation from 1 February 2019. Beside the supporting activities, the Representation, thanks to ENAC contribution, organised several events attended also by the President and the Director General of ENAC. As regards the ICAO technical work, the Representation facilitated and coordinated the introduction participation activities of the Italian specialists in the working groups coordinated by the Secretariat.

The Representation has facilitated the joined participation of ENAC and ENAV in the symposium DRONE ENABLE/3 (Montreal, 12-14 November 2019) in the role of speakers in a session of the event where they provided the details of the Italian experience in the development of the so-called U-SPACE. The Representation has organised with ICAO the presentation of the SDAC (Spatial Distribution of Aircraft Crashes) software to the ANC over the spring session. The software, useful to analyse and assess the accidents recorded in the airport vicinity, has been donated by ENAC to ICAO over the 40<sup>th</sup> ICAO Assembly, through a specific Memorandum of Understanding.

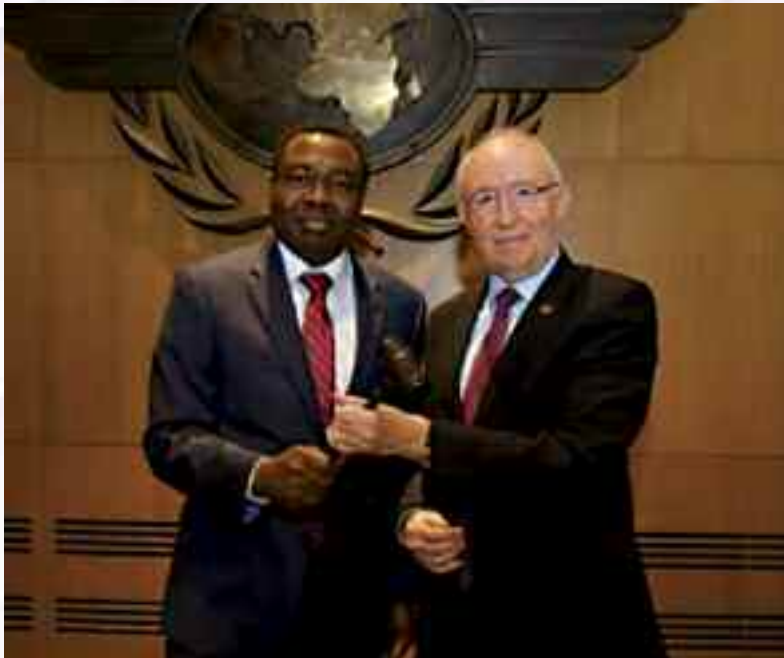
The Representation has collaborated with ENAC Directorate General for the realisation and publication of the Director General interviews on ICAO JOURNAL and ICAO STATES TODAY; the latter has been distributed to the Member States Delegates during the Assembly. It has actively participated in the organisation of the Italian

mission for the 40<sup>th</sup> ICAO Assembly, besides providing support to the delegates over the different sessions. In the same context, it has collaborated with ENAC Directorate General in the organisation of the event that took place in Montreal on 25 September to promote Italy as part of the supporting actions for the Italian candidacy to the ICAO

Council and the Eng. Sciacchitano candidacy for the Council Presidency.

Moreover, the Delegation has coordinated the ENAC participation in the ICAO SKY TALKS where the software SDAC has been presented to the Delegates of Member States present at the Assembly.

#### 40<sup>th</sup> ICAO GENERAL ASSEMBLY AND ELECTION OF THE NEW PRESIDENT OF THE ORGANISATION FOR THE THREE-YEAR PERIOD 2020-2022, ENG. SALVATORE SCIACCHITANO



The 40<sup>th</sup> General Assembly of ICAO (International Civil Aviation Organization), the UN Agency that gathers the Civil Aviation Authorities of 193 Member States, took place in Montreal from September 24 to October 4, 2019. The Assembly meets at least once in three years in order to decide the Organisation policy and elect the 36 members of the ICAO Council, divided by relevance in three groups.

Italy has been represented in the Assembly by a delegation headed by the ENAC President and Director General and consisting of representatives of the Ministry of Foreign Affairs and members of the Permanent Representation of Italy to ICAO, Italian Air Force Staff and, as observers, ENAV and Fondazione 8 ottobre 2001.

The 2019 ICAO Assembly will be remembered for the extraordinary results achieved by Italy, in confirmation of the key role of our Country in the international civil aviation.

The elections for the ICAO Council took place during the General Assembly, and, on September 28<sup>th</sup>, they confirmed Italy in the first group, among the leader nations in civil aviation, with unprecedented results: ranked first with 160 votes on 168 voters, on a par with China and first of the European Countries.

The Assembly has been a crucial occasion for the last stages of the election campaign for the ICAO Presidency in favour of the European only candidate selected by ECAC - European Civil Aviation Conference, the Italian, Eng. Salvatore Sciacchitano, former ECAC Executive Secretary and ENAC Vice Director General for about ten years.

The long election campaign to support Eng. Salvatore Sciacchitano was started in 2018 and has continued over the entire 2019 – in parallel with the campaign to support the re-election of Italy in the Council – with the involvement in an active and fruitful teamwork of ENAC's top management, Cabinet of the Minister of Infrastructure and Transport and, certainly, the Ministry of Foreign Affairs, through both the Permanent Representation to the ICAO Council and the Ufficio I of the Directorate General for Global Affairs.

The candidacy of Salvatore Sciacchitano has been promoted since the opening session of the Assembly, on September 24<sup>th</sup>, in the Statement delivered by the ENAC President, on behalf of the Italian Government and Hon. Minister Paola De Micheli, and on September 25<sup>th</sup> during the event organised by ENAC and the Italian Representation to ICAO.

With the aim of supporting the candidacy for the Presidency, a set of bilateral meetings have been organised by the Representation and under ENAC guidance with Canada, China, Colombia, India, Nigeria, Peru, Dominican Republic, Russia, Saudi Arabia, Singapore, South Korea, Venezuela and Zambia as well as with COCESNA - Corporación Centroamericana de Servicios de Navegación Aérea.

ECAC has also promoted analogous meetings with Australia, China, Israel, Malaysia, Russia, Saudi Arabia, South Korea and GRULAC - Group of Latin America and the Caribbean.

Eng. Sciacchitano has been elected as new ICAO President for the three-year period 2020-2022, in the elections held in Montreal on November 25<sup>th</sup> 2019, during the 218<sup>th</sup> session of the Council.

For the first time since the formation of ICAO in 1944, a European serves as President.

The 40<sup>th</sup> ICAO Assembly will also be remembered for an additional favourable result for Italy: the signature of the Memorandum of Understanding between the ENAC President and the ICAO General Secretary to officialise the donation to ICAO of the ENAC software for the analysis and evaluation of the accidents occurred in the airport vicinity. As illustrated by ENAC on the occasion of a dedicated Sky Talk during the Assembly on September 30<sup>th</sup>, it is a system developed by ENAC through the analysis of the reports uploaded in the most qualified database in the course of a twenty-year period and it allows to carry out detailed analysis on the events occurrence modalities. The software, called SDAC - Spatial Distribution of Aircraft Crashes, is based on the events (accident and incident) recorded worldwide. The current version includes those occurred during the period from 1996 to 2015, more than 1,700 events with a three-year update.

The near future will offer even more to Italy the important opportunity to give an impactful impulse to the global air transportation policy, confirm the support to all the ICAO Member States in the context of the concept 'No Country Left Behind' and face the next challenges of the international civil aviation field with institutional balance: from the environmental sustainability and the CO<sub>2</sub> emissions reduction, to the traffic growth and the infrastructural adaptation, and, obviously, the guarantee of safety and security.

## Safety

### Higher Airspace Operations

Italy is committed in the EU context in the development of the operational concepts and regulatory framework of the HAO - Higher Airspace Operations, those operations that take place in the highest levels of the airspace, over the Flight Level 600/660 and until an approximate altitude of 100km.

The HAO include both the operations that take entirely place in the above-mentioned airspace section and those that pass through it for the purposes of putting into orbit spatial objects in the outer space and for re-entry from the orbit. The orbital operations are not included.

The common operations typologies are the following: supersonic and hypersonic flights, A-A and A-B (point-point) suborbital flights, HAPS - High Altitude Platform Systems, HALE - High Altitude Long Endurance operations, transit flights/launches to put into orbit spatial objects, including launch operations from aerial platforms and re-entry flights from the orbit.

### EU Air Safety Committee

The 2019 activity of the Air Safety Committee involved the usual update of the EU Safety List, list of the banned air carriers for commercial flights in Europe. The two annual meetings of the Committee produced two updates of the EU Air Safety List with some additions and cancellations from the list published on the European commission DG MOVE web site.

### Bilateral agreements

In the Aviation Safety field, in 2019 the proposed amendment to the agreement between EU and USA and the new bilateral agreements between EU and China and EU and Japan have been favourably assessed. The new agreements, after being ratified, will facilitate commercial exchanges and the export of aircraft and equipment towards those Countries.

## Airspace Regulation

### EU

#### Single European Sky

During the Transport Council of the European Union on December 2, 2019, a clear consensus between the Ministers emerged on the need and urgency to reform the Single European Sky with the aim of remedying the current airspace fragmentation. The Ministers agreed that the network is affected by capacity problems and the situation

needs to be improved also taking into consideration the environmental goals.

Between the two main procedural options to update the Single Sky which are the revision of the SESII+ proposal (the general approach reached during the Italian Presidency of the EU Council in the second semester 2014) and a completely new SESIII proposal, the former has been preferred. Therefore, the Presidency announced that the Council will request the Commission to submit a work accompanied by the analysis of the potential impacts and benefits of the revised proposal.

Italy expressed a favourable opinion on the revision of the SESII+ considering it a good starting point to proceed with the reform, with the appropriate updates and needed cancellation of the outdated parts, and it highlighted that a high service quality level took the Country to essentially eliminate any delay (despite the air traffic strong growth), under the current legislative framework.

Still in 2019, the performance goals at Union level regarding the air traffic management network for the third reference period, between January 1, 2020 and December 31, 2024, have been approved with the Italian favourable opinion (Decision 2019/903 of 3 June 2019).

The Commission decision has represented the basis for the development of the National Plan of Performances Enhancement drawn up in accordance with the requirements of the Regulation no. 2019/317 and sent to the European Commission for the following assessment on September 30, 2019.

### ICAO

#### Meteorology Group of EANPG - European Air Navigation Planning Group

During the meeting of the ICAO Meteorology Group that took place in Paris from the 16th of September 2019 to the 20th, the Italian Delegation led by ENAC in which ENAV SpA and the Italian Air Force participated, presented the Information Paper (IP) – "Second SIGMET coordination workshop in Italy" – activity that took place from the 4th of December 2018 to the 6th – and the Working Paper (WP) "A proposal for the inclusion in meteorological reports of information about volcanic ash downfall at an aerodrome". With the latter, the Italian delegation intended to recall the attention of the international delegates on the possibility of including information about volcanic ash downfall at an aerodrome in the additional information of the meteorological reports and it suggested to propose to the ICAO competent body the adoption of a new weather



## Sheet 8.1 ENAC in the international context

descriptor for recent and current conditions to be included in the METAR/SPECI meteorological reports aimed at describing the volcanic ash downfall at an aerodrome. Unanimous praise has been expressed by the ICAO Secretariat and the Countries with Volcanic Ash Advisory Centres (France and United Kingdom of Great Britain and Ireland), that agreed on the opportunity of bring to the attention of the MET PANEL working groups the Italian Working Paper.

### **ICAO VOLCEX 18 Debriefing Meeting, VOLCEX 19 Planning Meeting e VOLCEX Steering Group Meeting (VOLCEX/SG/14)**

On January 15-16, 2019, the following meetings took place in Naples:

- Debriefing Meeting of the ICAO VOLCEX 18 Crisis Management contingency Exercise (November 28, 2018).
- Planning Meeting of the ICAO VOLCEX 19 contingency Exercise.

45 international delegates from 16 Countries (Albania, Denmark, France, Germany, Iceland, Italy, Norway, Poland, Portugal, Romania, Serbia, Slovenia, Spain, Sweden, United Kingdom of Great Britain and Ireland) and International Organisations (European Commission, ICAO, IATA, IFALPA), besides representatives of air carries (American Airlines) and Research Institutes (Salzburg University and Italian Institute of Geophysics and Volcanology) participated in these international meetings.

In the Italian delegation led by ENAC participated personnel of the Italian Air Force, ENAV SpA and the airport managing body of the International Airport of Naples (G.E.S.A.C. SpA).

### **ICAO VOLCEX 19 Preparatory Workshop**

37 experts coming from 19 States, 2 air carriers and 5 International Organisations (EUROCONTROL, IATA, IFALDA, IFALPA e ICAO) participated in this workshop where the Italian delegation led by ENAC presented to the international delegates the Exercise Directive of the VOLCEX 19 Exercise and the organisational and technical arrangements preparatory for the success of the Exercise.

## Airports

### EU

#### **Airport Regulation**

With the publication of the Reg. EU no. 2018/1139 – the

New Basic Regulation entered into force on September 11<sup>th</sup>, 2018, the domain of the airports is characterised by a renewed regulatory framework.

The implementation phase of the New Basic Regulation focused in particular on the protection of the airport surroundings. Under the art. 38, the Member States must adopt all the needed provisions to ensure that the airports located in their territory are protected by activities that take place in the surroundings and may entail unacceptable risks for the aircraft.

With this regard, ENAC has elaborated a first draft of the Regulation "Safeguard of airport surroundings".

The aerodrome (ADR) domain has been object – for the first time – of a Comprehensive Audit conducted by EASA from December 2 to 6 2019, with positive results.

#### **Airport capacity**

Italy participated in the activity of the Monitoring Centre for the study of the EU airport capacity aimed at defining an index to measure the airport connectivity between European regions and States. The path analysis has started in 2019 with the proposals elaborated by Eurocontrol, on behalf of the Commission's Directorate-General for Mobility and Transport, through the definition of a software/database that analyses and considers a number of parameters including the flights offer, the distance of the airports from the residential areas, the travelling times, etc.

Taking into consideration what mentioned above, in 2019, Eurocontrol developed a beta version of the database that, based on the aforementioned parameters, defines the connectivity levels between the subregions of the European States. In the case of Italy, the software uses the regional Country subdivision as origin and destination points.

Once consolidated with the contributions and observations of the Monitoring Centre Members, this version will be provided to the DG Move for the further distribution.

#### **Trans-European network of transports**

With reference to the executive decision of the European Commission C (2014) 1921, ENAC contributed, for its competence on the airports included to the trans-European network of transports, in the amendment proposal submitted by Italy as part of the multi-year planning work CEF - Connecting Europe Facility - Transport sector funding instrument for the period 2014-2020.

**ICAO****ADOP - Aerodrome Design and Operations Panel**

The annual meeting of Aerodrome Design and Operations Panel took place in Montreal at the ICAO's headquarters in July 2019. It is a high-level working group who is in charge of implementing and updating the Annex 14 – Aerodromes, and related normative and sector addresses.

The Panel session of July was dedicated to the verification of the progress of activities and tasks assigned to each Working Group and Task Force by the Panel itself on behalf of the ANC (Air Navigation Commission) in order to comply with the ICAO regulatory implementation objectives.

The most relevant themes regard the update of the delimitation surfaces of air navigation obstacles and dangers, the beginning of the activities for a future complete revision of the basic principles of the Annex 14, which will take into consideration the aircraft performances evolution registered over the last years through the ARC (Aerodrome Reference Code) complete revision.

Therefore, the Panel provided its indications to each WG, coordinating their activity. The ENAC representative holds the position of Panel Vice Chairman.

**ICAO/ACI Symposium on Implementation of the New Global Reporting Format for Runway Surface Condition**

An international symposium organised by ICAO and ACI (Airport Council International) took place in Montreal in March 2019 to present the Global Reporting Format (GRF) which will entry into force on November 5, 2020 on a global scale. It is the new format – global standard – to evaluate and report the runways surface conditions.

The GRF introduction intended to define a common language between the aerodrome operator, in charge of detecting the ground conditions, and the aircraft operator, in charge of using that information to calculate the aircraft performance.

**Obstacle Limitation Surface Task Force**

The Task Force is part of the Aerodrome Design and Operation (ADOP) and Instrumental Flight Procedure (IFPP) panels; it is in charge of revising the concept related to the surfaces of obstacles limitation to flight considered outdated if compared to aircraft performances and the related incidents records.

**Visual Aids Working Group**

ENAC keeps actively and constantly participating in the work of the ICAO VAWG - Visual Aids Working Group.

The activity consists in sharing the implementation modality of all the normative aspects included in the Annex 14, part Luminous Visual Aids, and in all the ICAO Documents related to the same Annex.

**Security and Facilitation****SECURITY****EU****Aviation Security Committee**

Over 2019, ENAC actively participated in the meeting of the Aviation Security Committee of the European Commission that is aimed at elaborating common rules and regulations on civil aviation security deriving from acts of unlawful interference.

As scheduled, during the 4 yearly meetings of the Aviation Security Committee (March 20, June 12, September 10 and November 20) the modifications and integrations of the Reg. (EU) no. 2015/1998 have been discussed and approved: among the others, new common measures on the individuals that are required to work in airports security restricted areas (detailed background check) have been introduced, as well as transposal provisions of the Annex 17 to the Chicago Convention on cybersecurity.

Moreover, the list of Third Countries whose security measures are considered to be equivalent to the European provisions has been integrated.

The Aviation Security Committee adopted, in the session of November 20, a new provision on the European single certification of the equipment used in airports to carry out the screening of passengers and their baggage as well as goods and mail: the devices will be provided with a EU stamp that will certify the compliance with the test executed by a specific organisation recognised at European level.

**Explosive Detection Dogs in Aviation**

The Explosive Detection Dogs (EDD) are increasingly being used in the aviation security field, in particular, but not only, for the screening of goods and mail in accordance with the provision included in the Reg. (EU) no. 2015/1998. ENAC participated in the Workshop Explosive Detection Dog organised by ECAC in view of the definition of the aspects which are still considered controversial by the reference regulation (Reg. EU 2015/1998 and Decision 2015/8005) and the best practices exchange between CAA and stakeholders, as

## Sheet 8.1 ENAC in the international context

well as any other useful information for the employment of explosive detection team in airports.

### **ECAC/UE Coordination Group for Aviation Security matters**

The European coordination group for aviation security matters is aimed at ensuring a higher influence of the EU within ICAO and facilitating the recognition of the European interests and priorities in the aviation security sector.

Over 2019, ENAC participated in two meetings of the Group to agree a European common position on the Working Papers that have presented and discussed during the ICAO General Assembly in Montreal from September 24 2019 to October 4.

### **ECAC Security Forum**

The centrality of the cybersecurity and the internal threats prevention modalities, above all in the airport computer system, have been discussed during the meetings. The participant stressed the importance of ensuring the coordination between the different regulatory regimes that are developing cybersecurity requirements and standards. During the meeting that took place in Brussels, Eurocontrol made a presentation on Air Traffic Management, the related security systems and the role of the navigation services providers in aviation security.

### **Technical Task Force**

ENAC constantly participates in the regulatory activities related to the security technologies defined and classified by the European Commission.

To this end it participates in the ECAC Technical Task Force (TTF) that, under direct mandate and operational control of the European Commission, aims at analysing and sharing the numerous and complex technical matter that involve the certification and the use of more or less innovative technology in the security sector applied to the devices included by the European regulation.

The efforts are focused on both the improvement of the equipment reference standards already subject to certification through a regulation evolution complemented by an equivalent technical innovation on the existing equipment, and the definition of new standards associated to new technologies to introduce in the airport checks.

### **ICAO**

#### **EUR/NAT AVSEC GROUP**

The 7<sup>th</sup> meeting of the Aviation Security EUR/NAT Group took place in Paris and it has been focused on the

discussion related to the most recent developments in the AVSEC and FAL sectors at global level, the regional progresses from the AVSECG/07 meeting and the EUR/NAT 2018 regional conference on GAsEP, as well as the implementation state of the GAsEP regional roadmap in EUR/NAT.

During the meeting, the Italian delegation presented the Working Paper WP14 "Ongoing actions and tasks in Italy to implement the GAsEP" on the main initiatives undertaken at national level to achieve the primary result expected with the GAsEP including:

- preparation of a model to allow airport managing bodies and air carriers to verify the airport cyber resilience;
- preparation of the guidelines to enhance the protection system of the airport vehicle entrances;
- organisation of Workshops to promote the security culture;
- selection of new security instructors and training straightening;
- developed of the Risk Based Oversight (RBO) methodology to plan and manage the inspective activity at airports;
- creation of a web repository for security related documents which is accessible by those in need.

The actions presented by Italy have received the appreciation and the complete support of the ICAO EUR/NAT Group.

### **ICAO Aviation Security Panel (AVSECP)**

The Panel is aimed at carrying out specific tasks assigned by the Unlawful Interferences Committee (UIC) with the goal of developing regulations and SARPs - Standards and Recommended Practices, prepare procedures and guidance material and keep the Aviation Security Manual (Doc 8973 - Limited) updated.

Over the meeting the discussion treated the current threats to civil aviation, the Incident reporting systems (integrated communication on data related to security as well as risk and incidents notifications), the Security Culture and the Training. On these last aspects the Panel agreed that a solid security culture and a solid staff training are essential components of air security.

### **ICAO Working group on Training**

ENAC participates in the ICAO Working group on Training on aviation security.

In 2019, the Group meet in Bangkok and Sibiu (Romania) addressing the themes of the Insider threat, the professionalisation of the entire staff involved in airport

security and the security culture.

The function mapping of the entire airport staff involved in security has been elaborated to achieve these priorities. For each function it has been identified the most appropriate training content to develop the staff skills.

The Group has also worked on a Toolkit, that is to say a Guide to support the security culture since its strengthening is one of the main instruments identified by ICAO to increase the global level of the aviation security.

#### **ICAO 40<sup>th</sup> General Assembly - Montreal, 24 September - 4 October 2019**

The themes related to Aviation Security (AVSEC) have been treated during the ICAO 40<sup>th</sup> General Assembly within the Executive Committee for their subsequent vote in the Plenary Assembly.

The Committee examined the aviation security policies on the basis of the report submitted by the Council on the implementation of the Global Aviation Security Plan (GASeP) and the results of the Second High-level Conference on Aviation Security (HLCAS/2).

The Committee has also taken into consideration the Council proposal of updating the Consolidated Statement on Continuing ICAO Policies Related to Aviation Security and the proposal of updating the Resolution on Addressing cybersecurity on civil aviation.

Moreover, 44 Papers have been presented by the States and the Observers, 15 of which have been supported by Italy with declarations.

The discussion has been focused on the following main themes: Aviation security Policy (Strategical priorities for the next three-year period, Global Aviation Security Plan, Regulatory policies, Cybersecurity, Collaboration and cooperation, Security Culture, States oversight activity), Audit Programmes (USOAP-CMA e USAP-CMA respectively Universal Safety Oversight Audit Programme - Continuous Monitoring Approach and Universal Security Audit Programme - Continuous Monitoring Approach), Technical assistance programmes.

## Cybersecurity

### **UE**

The examination of the modification proposal of the Reg. (EU) no. 2015/1998 deriving from the amendment 16 of the ICAO Annex 17 on cybersecurity has been completed within the AVSEC.

On September 25, 2019, it has been issued the Implementing Regulation (EU) no. 2019/1583 of the

Commission that modifies the Implementing Regulation no. 2015/1998 that established detailed provisions for the implementation of the fundamental rules on air security with regards to cybersecurity measures.

Among other things, the regulation establishes that the competent authority will have to make sure that the airport operators, the air carriers and the other subjects defined in the national programme for the civil aviation security identify and protect the data and the fundamental systems of information and communication technology from cyberattacks that may affect the security of the civil aviation. Moreover, the competent authority is required to establish and implement procedures for a prompt information sharing with other authorities and national agencies, airport operators, air carriers and other interested parties to allow them the execution of effective security risk evaluation in relation to their operations. The Reg. (EU) no. 2019/1583 is entering into force on December 31<sup>st</sup> 2020.

#### **EASA European Strategic Coordination Platform - TAC**

Members of European Institutions (DG-MOVE, CERT-EU, ENISA, EASA, Eurocontrol, SESAR-DM, ECAC, EUROPOL, EDA) participate in this EASA platform together with national civil aviation authorities (like ENAC), representative bodies of the sector's stakeholders (CANSO, ADS, A4E, ECA, EHA, ERAA, GAMA, IATA).

The 2019 main output was the technical contribution to put into writing the EASA regulations on aircraft cybersecurity and Management of information security risks.

These regulations will crosscut all the EASA regulations on civil aviation (planning, building, maintenance, airworthiness, air operators, airports, air navigation services providers, etc.) and will form the basis for the creation of a global cybersecurity system.

#### **ECAC Study Group on Cyber Security in Civil Aviation**

ENAC has been actively participating for years in the meetings of this group whose mandate is to:

- a. identify the potential cyber risks for civil aviation;
- b. monitor, discuss and contribute, also employing observers, to the cybersecurity developments in civil aviation that may involve the Member States in order to share these knowledges;
- c. develop strategies and guidance material to promote the effective implementation of cybersecurity measures for the civil aviation at both national and European level;
- d. keep the recommendations included in the Doc. 30 ICAO updated together with its attachments on matters related to cybersecurity;

## Sheet 8.1 ENAC in the international context

- e. increase the level of cyber risks awareness among the ECAC Member States;
- f. support the efforts of the Member States to integrate the cybersecurity in the fabric of the society;
- g. contribute, when deemed necessary, to the work carried out by other stakeholders, providing pertinent information and material;
- h. provide periodic report on the Group's work in the ECAC security forum.

Among the new goals of SGSCSA, is to highlight the cataloguing of the training activities on cybersecurity that take place in Europe and that are linked to the Civil Aviation field.

### **ECAC/EU European Safety and Air Navigation Coordination Group**

The main goals of this group, made up of the ECAC/UE, EASA, SESAR JU and Eurocontrol Member States, are:

- To coordinate the European contributions, also for the ICAO Assemblies, and maintain dialogue with the main international partners in the preparation phase of the most important ICAO events;
- To coordinate a common response to the ICAO State letter considered to be of strategic interest for Europe;
- To report to the Director Generals of the Civil Aviation Authorities of the Member States through the focal point for security matters on the implementation of its work programme and to establish a proposal on the future works.

ENAC participated in the 4 meetings that took place in 2019, with particular attention to cybersecurity themes.

### **NATO/EUROCONTROL ATM Security Coordinating Group (NEASCOG)**

The ATM NATO / EUROCONTROL (NEASCOG) coordination group, jointly established by the two organisations, is the focal point for the ATM security in Europe and covers both the civil and the military interests. In this group, ENAC, besides participating in the periodic forums where the different working groups results dedicated to specific themes are approved, has collaborated to the Task Force ARA (Aviation Risk Assessment). During the periodic forums, the main goal of ENAC activity regarded the ATM Security Policy.

## Facilitation

### **ICAO**

#### **Support to aircraft accident victims and their families**

Two Working papers regarding the support to the victims of civil aviation accidents and their relatives have been presented during the 40<sup>th</sup> ICAO Assembly: the WP 127 by Finland and ECAC/EU Member States and the WP 298 by the International Association of victims' families.

The Executive Commission approved the Resolution A40-16 through which the States are urged to included an adequate and specialised psychosocial training in the training programmes. At the same time, the Council is requested to elevate the recommended practice to International Standard to develop specific assistance plans to be adopted by the air carriers and to introduce a new recommended practice to the Annex 9 for the air carriers and airport managing bodies plans.

### **ECAC**

#### **Facilitation Working Group**

The Group is articulated in a plenary session, study subgroups and groups, and it directly interacts with the ICAO Facilitation Section as well as it is coordinated for the ICAO Facilitation Panel (European Coordination Group) preparation.

It also provides training activity through the subgroups, in particular Workshops dedicated to specific topics.

The meetings are the occasion for the Member States and the organisations to exchange information, share best practices and establish common paths in the Facilitations development.

#### **European Coordination Group for Facilitation Matters (ECG-FAL/1)**

The meeting has been called with the aim of defining the European priorities to present at 40<sup>th</sup> session of the ICAO Assembly in September 2019, with particular reference to the opportunity of proposing working documents on the topics related to Passenger Name Record (PNR) and Support to the victims of civil aviation accidents and their families.

Consequently, the WP presented to the Secretariat by the European Commission on the themes of PNR data processing and jointly by Italy and Spain on the Plan on supporting to aircraft accident victims and their families, have been examined.

The proposal of the FAL Section ICAO to establish a PNR Task Force made up of experts appointed by the Member States has been discussed. It is aimed at developing new Standards and Recommended Practices (SARPs) to be included in the Facilitation Annex 9, in line with the U.N. Resolution 2396.

### **Passengers with Reduced Mobility (PRM)**

During the workshop on PRM that took place in the related subgroup in February 2019, the members treated both financial matters regarding the definition of PRM charges and matters related to the assistance service quality. Italy participated in the National Enforcement Body (NEB) session of the workshop presenting the national experience, from both the charges regulation and the monitoring activity on the assistance quality of the provided service points of view.

During the workshop, it was found that Italy is the only European State that published the Guidelines on the definition of PRM charges and the consultation procedure with the airport users.

As a result of the February 2019 workshop, it has been decided to establish a study group on the subject, under Italian responsibility, in order to identify concrete actions to harmonise the methodologies and procedure in the ECAC context.

### **ECAC Quality Assessment Programme**

ECAC promoted, within the subgroup PRM, the initiative called Quality Assessment Programme (QAP), aimed at monitoring the assistance services quality to people with disabilities and people with reduced mobility provided by both the airport managing bodies and the air carriers, in accordance with the Reg. (EC) no. 1107/2006 and the Doc. 30 ECAC.

The programme promoted by ECAC is aimed at:

- examining the implementation level of the recommendations included in the Doc. 30 ECAC from the operators in order to evaluate a possible revision of them;
- ensuring that the assistance service to people with disabilities and people with reduced mobility is provided in compliance with high quality standards, with the recommendations included in the Doc. 30 ECAC, in a transparent and impartial manner;
- harmonising the procedures related to the Audits carried out in the single ECAC States, sharing the methodologies and the best practices with the different NEBs.

Italy proposed itself both as hosting Country of the first

Quality Assessment Programme, identifying the airports of Bologna and Catania as well as the Air Dolomiti air carrier and to participate in the ECAC Team as National Coordinator. The three Assessment Programme took place between July and September 2019.

### **EU**

#### **Regulation (EC) no. 261/2004**

The Regulation (EC) no. 261/2004, as is well known, has established common rules on the compensation and assistance for the passengers in case of denied boarding, flight cancellation or long delay.

A meeting of the NEBs – National Enforcement Bodies representative took place in Brussels in October 10, 2019, at the presence of the EU Commission and within the Aviation Group of the European Council.

The Commission has retraced the steps of the work carried out in the last years and has informed to have commissioned a study to the company Steer Davies & Gleave with the aim of evaluating the current level of passengers' protection and identifying the expectations of passengers, industry, NEBs and all the involved stakeholders.

All the stakeholders agreed on the need and urgency of revising the Reg. (EC) no. 261/2004.

#### **DG-MOVE Visit**

Within the institutional visits organised by the European Commission – DG MOVE in the Member States ENAC in the role of NEB for the application of the Community Regulations 261/2004 and 1107/2006, on July 23, 2019 met in its Rome's Headquarters the Commission representatives. During the meeting, ENAC explained its organisation, only one in Europe, characterised by a widespread presence of the Charter of Rights and Quality Inspectors in the airports, and by the commitment in the monitoring and oversight activity towards the airport operators for both the theme of passengers' protection in case of disruptions and the PRM assistance activity.

Moreover, ENAC presented the institutional website section dedicated to passengers rights and the introduction of the online form, in Italian and English, to deliver a complain to ENAC, the procedure for the claim agencies, the combined audit Quality of services and provided PRM assistance; the publication of the Charters of Services of both the airport managing bodies and the air carriers, the indicators monitoring of the Planning Agreements Quality Plans signed by the airport managing bodies, the project "Autism - Travelling through the airport"

## Sheet 8.1 ENAC in the international context

and the constant collaboration activity with the Italian Associations of disabled people and passengers with reduced mobility.

The DG MOVE has also met the representatives of the national air carriers and airport managing bodies and their associations, as well as the representatives of the consumers' associations and the representatives of the associations of disabled people and passengers with reduced mobility.

The DG MOVE was very appreciative of the enforcement activity organisation implemented by ENAC and of the positive feedbacks received by the stakeholders intervened, highlighting the numerous best practices present in Italy and inviting their sharing with the other Member States.

## Economic and Air Transport Regulation

### EU

#### Airport charges

In the economic regulation context and with particular reference to airport charges, over 2019, ENAC participated in the Thessaloniki Forum of Airport Charges Regulators, chaired by the European Commission, giving its contribution to the analysis activity started by the Commission on the Directive 2009/12/EC and on its application among the different Member States. The participation has continued until May 2019 when, following the entry into force of the community law 2018, the Transport Regulation Authority has been identified as single Oversight Authority on all the Italian airports, with functions in the charges field in application of the above-mentioned Directive 2009/12.

ENAC also participated in the meetings of the ECG - European Coordination Group between ECAC and EU and the ECAC NCE - Network of Chief Economist Group. The latter focused its 2019 activity on the charges of the airport services provided to passengers with reduced mobility (PRM charge) and, more in general, to elaborate a common position of the ECAC States on the subjects regarding the air transport liberalisation.

### EUROCONTROL

#### Charges for the Air Navigation Services

Following the publication of the regulation about the European single sky creation, the EU disciplined the new layout of the charges for the air navigation services under

the Reg. (EC) no. 550/2004 and with the Reg. (EU) no. 391/2013 it established a shared charging system. In particular, the route charge and the terminal charge are within the European regulation in relation to two specific charging zones: Rome Fiumicino, annual traffic over 225,000 movements in the first, Milan Malpensa, Milan Linate, Venice, Bergamo, annual traffic over 70,000 movements in the second.

The Terminal charge of the third charging zone that includes the remaining 43 airports is still disciplined by the national regulation.

In 2019, ENAC participated in the 112<sup>th</sup> and 113<sup>th</sup> meetings of the Enlarged Committee for Route Charges, institutional forum where the consultation with the users of the Air Navigation Services takes place, as provided for by the European regulation.

Unit rates for the route charges applicable from January 1<sup>st</sup>, 2020 have been published with the Eurocontrol Information Circular no. 2020/01.

The Terminal charges unit rates have been published with the Circular Information LI 2020/01.

#### Standing Committee on Finance

The Eurocontrol Finance Committee is a committee of experts which provides consultation to the Provisional Council, by presenting its recommendations on the balance project of the Agency, the 5-year Programme and, more in general, on all the balance and financial related topics of Eurocontrol interest. ENAC participated in the 32<sup>nd</sup> and 33<sup>rd</sup> meeting of the Financial Committee which took places in May and October 2019.

#### Pension Fund Supervisory Body

The Pension Fund has been established with the Decision no. 102 of the Eurocontrol Permanent Commission. From January 1<sup>st</sup>, 2015, it funds the retirement benefits of the staff retired after January 1<sup>st</sup>, 2005, for the service period after January 1<sup>st</sup>, 2005, collecting the pension contribution of the staff.

The Pension Fund Supervisory Body is an independent entity that refers to the Provisional Council, which is responsible for the Fund management supervision, carried out by an executive manager.

From November 2016, 36<sup>th</sup> Committee meeting, ENAC has a representative among the Board members and since October 2018 the same person has been unanimously elected Board chairman.

## Brexit

Over 2019, ENAC followed the procedures aimed at ensuring a basic connectivity and soften the negative impacts due to the hard Brexit, in anticipation of the United Kingdom exit from the European Union without agreement. Initially, the regulation mentioned below have been followed up by promptly paying attention to the politic events that involved the United Kingdom decision on this matter. In particular:

- (1) The Reg. (EU) no. 2019/502, that tended to ensure the basic connectivity and soften the negative impacts due to the hard Brexit.
- (2) The articles 17-ter and 17-quater of the Legislative Decree 25 March 2019, no. 22, coordinated with the conversion law 20 May 2019, no. 41, that regarded respectively a derogation of the traffic distribution in the airport of Milan Linate (with a specific call to the UK air carriers and the connections between UK and EU, temporarily allowed also in case of Brexit) and an attempt to avoid the increase of the airport charges for UK air carriers, to which should be temporarily applied the charges for the EU air carriers.

As from the last months of 2019, as a consequence of the UK elections, the exit of the United Kingdom from EU has been planned and realised for the end of January 2020. The European Commission and the British government signed a temporary agreement that establishes no changes in the current charges' regime for the entire 2020. Basically for 2020, in order to facilitate the negotiations and achieve a stable agreement between the parties, the regulations currently in force in the European Union will continue to apply.

### Liberalisation and competitiveness in air transport

With regard to the theme of competitiveness, in 2019, the Reg. (EU) no. 2019/712 of the European Parliament and the Council of April 17, 2019, entered into force. It treats the competitiveness protection in the air transport sector and abrogated the Reg. (EC) no. 868/2004, as response to the objective of providing the Member States with an instrument to ensure the fair competition between the EU and the Third Countries air carriers.

The new regulation redefines the rules for both the Commission investigation conduction and the adoption of remedial measures in case of violation of the applicable international obligations and practises that affect the competitiveness between the EU and other air carriers as

well as threaten or cause injury to the EU air carriers.

The air operations carried out by non-EU air carriers in Europe produce, in fact, relevant economic benefits for both the air transport sector and the services sustainability, ensuring better levels of connectivity, besides all the related indirect benefits.

In this context, it is needed to identify a system that ensures, at EU and global level, the fair competitiveness and the liberalisation of the air transportation market. With this aim, the obligations about competitiveness and liberalisation established by the Reg. (EC) no. 1008/2018 may be reconsidered, in particular for the aspects of Ownership & Control.

### Negotiations with non-EU Countries – Application of the Reg. (EC) no. 847/2007

Over 2019, ENAC, on behalf of the Ministry of Infrastructure and Transport, led the negotiations with the following Countries:

Bahrain, Turkmenistan, Belarus, Iraq, Mozambique, Paraguay, Senegal, Uganda, Zambia and Japan.

The Italian proposals forwarded to each counterpart above-mentioned have taken into consideration the provisions of the Reg. (EC) no. 847/2007, complying with all the standards required by the European Commission.

### Participation in the ICAN2019

As regards to the ICAO activities, ENAC participated in the ICAO Air Service Negotiation Event (ICAN2019) that took place in Aqaba, Jordan, between December 2 and 6.

Also in 2019, ICAN recorded a wide participation of the Member States. It is an efficient platform to conduct negotiations about air services, consultations and negotiations. Therefore, it has been an important occasion of international discussion. The forum allowed the participation in debates that showed the most relevant experiences and evolutions of the sector, being an excellent opportunity of discussion and sharing of ideas.

### RELEX - EU External Relations

For almost twenty years, an interaction process has started between the EU Member States and the EU Commission in the sector of the aviation agreements with Third Countries and, until 2002, the negotiation was a prerogative of the single EU Countries. The process falls under the concurrent jurisdiction between Member States and EU, included in the Art.4.1.G (transports) of the Treaty on the Functioning of the European Union.



## Sheet 8.1 ENAC in the international context

By today, the following 10 global agreements have been concluded:

- Canada
- ECAA (European Common Aviation Area made up of: Albania, Bosnia-Herzegovina, Iceland (EFTA Country - European Free Trade Association part of the EEA - European Economic Area), Republic of North Macedonia, Norway (EFTA Country - European Free Trade Association part of the EEA - European Economic Area), Serbia, Montenegro and United Nations Mission in Kosovo (UNMIK, even if Kosovo is recognised by the majority of the Countries, Italy included))
- Georgia
- Jordan
- Israel
- Morocco
- Moldavia
- Swiss
- U.S.A. (Additional agreement and protocol).

The global agreements with the following Countries have been finalised however still not definitively closed: Ukraine (initialled on 28.11.2013), Armenia (initialled on 24.11.2017), Tunisia (initialled on 11.12.2017) and Qatar (initialled on 4.3.2019 as culmination of a negotiation that represented a turning point in the aeronautic relationships with this Country, preparing a gradual market liberalisation and disciplining with specific provisions, among the others, the safeguard of the fair competitiveness and the social aspects).

The signature, ratification and entry into force of the above-mentioned agreements have not been finalised yet due to the issues related to the definition of the European territory, connected to the controversy between Spain and United Kingdom on the sovereignty on the territory of Gibraltar, that will hopefully be solved with the BREXIT.

The Junker Commission has promoted and developed in the last years, with the unanimous consent of the Member States and until the end of its mandate, the so-called "Aviation Strategy", continuing the negotiations with the ASEAN Countries (Brunei, Cambodia, Philippines, Indonesia, Laos/Lao PDR, Malaysia, Myanmar, Singapore, Thailand, Vietnam), Azerbaijan and Turkey and starting the aeronautic consultations with Oman.

The details on the active negotiations conducted by the Commission and the Member States that issued the mandate to negotiate on their behalf (so called mixed agreements) are reported below.

The wet lease side agreement between European Union

and U.S.A. was signed on August 27, 2019.

The first negotiation of the agreement EU/Oman took place in Muscat on March 26-27, 2019, followed by a second meeting in Wien on June 25-26 and the third took place in Muscat on November 13-14. Good progress have been made on both the text of the agreement and the reciprocal cooperation.

The aeronautic consultations with the ASEAN countries have suffered a setback before the signing of the global agreement, but there is confidence towards the identification of a satisfying solution for both sides over the next year, taking into consideration the considerable importance of this block-to-block agreement.

With regard to the relationship with Turkey, after the 5<sup>th</sup> negotiation meeting that took place in Ankara on March 13-14, 2019, the Conclusions of the EU Council of July 15, established the suspension, still ongoing, of the global aeronautic negotiation.

## Environment

### ICAO, ECAC and EU

The Italian participation in the international activities on environmental protection in the air transport field, through ENAC, is mainly characterised by the initiatives aimed at reducing noise and gas emissions in order to ensure the national and international commitment in containing the climate change.

It is about implementing the actions needed to reduce noise and gas emissions, above all in the airport surroundings, the global measures based on the marked to reduce the CO<sub>2</sub> emissions (CORSIA), the alternative fuels sustainability (applied or not to CORSIA), the supersonic (regulation on noise and emissions), the optimisation of routes and services of air, ground and flight navigation.

In the European and ECAC context, in 2019, Italy participated through ENAC in the EAEG (European Aviation Environmental Group) that took over the strategic topics which are part of the working programme of the 12<sup>th</sup> cycle of CAEP – ICAO Committee for Aviation Environmental Protection (2019-2022), conducting activities of familiarisation towards the non-EU ECAC Countries and elaborating the European contributions to the most relevant current matters.

It is worth noting the activity related to the consolidation of the requirements for Particulate standard, the certification criteria for eligibility of sustainable fuels for aviation useful in the CORSIA scheme, the works progress on the

Supersonic standard (for noise, take-off and landing phases, CO<sub>2</sub> emissions) conducted by ENAC specialists in the CAEP and EAEG, besides the implementation of the CO<sub>2</sub> standard with its transposition in the EASA regulation and calendar of the actions established by CORSIA.

Moreover ENAC, supporting the Ministry of the Environment, has contributed to put into writing the Delegate Regulation (EU) 2019/1603, published on July 18, 2019, after several requests of modification that completed the European transposition legislative process established in this launching phase of CORSIA.

The Italian participation in the CAEP groups, always through ENAC, has continued in order to elaborate and amend the regulation included in the Annex 16 to the Chicago Convention and its volumes. Of particular relevance is the launch of the implementation phase of the scheme through the adoption of the Volume IV - CORSIA and with the request to the air operators of monitoring and counting their CO<sub>2</sub> emissions.

The European coordination activity on the main environmental matters, in which Italy has intensively

involved, was merged into the most important event of 2019 for global aeronautic community: the 40<sup>th</sup> session of the ICAO General Assembly.

Among the ICAO assembly works, the discussion on crucial environmental themes had wide resonance and Italy actively participated to find solutions that satisfy as many members as possible on matters that are still sensitive such as the forthcoming entry into service of civil supersonic aircraft, the sustainability criteria of alternative fuels, the long-term goal for the civil aviation of elaborating effective actions to reduce emissions, the global scheme to control the CO<sub>2</sub>.

In the same Assembly, as expected, primary attention has been given to the CORSIA scheme that, as is known, is part of the European regulation framework on air emissions of the ETS - Emissions Trading System, to which several European and international air operators are already subject, pursuant the Reg. (EU) no. 2392/2017 that started the integration process in Europe of the CORSIA scheme with the already regulated ETS System.

