Financial Support for Helicopter Operators to Implement Safety Systems and Equipment

Review of the possibilities at the European level

Stjepan Puljić
Transformation Department Trainee at EASA

Moisés Bismarck Medina De León
VTOL Department Trainee at EASA

First version: September 2020

ABSTRACT

Financial support for helicopter operators to implement safety systems and equipment is essential to sustain the European Union (EU) rotorcraft community, and to prevent incidents and accidents from occurring because of a lack of the proper technologies. We delineate in our research the possibilities of obtaining funding to bring explicit benefits and give better information to European operators. This paper shows the current EU funding programmes for the aviation industry that are accessible. In addition, two Articles that foster infrastructure components, and the priorities for air transportation, are presented. Due to the exceptional situation caused by the Corona Virus Disease (COVID-19) pandemic, which had drastic consequences for the whole world, we have observed the difficulty in finding financial support in the European Union. The review was been made between May and August 2020 and is based on public information and interviews with European Union Aviation Safety Agency (EASA) Experts and external consultants.

INTRODUCTION

In recent years, analysis of numerous accidents has made it clear that, if some of the already developed technologies had been used, many of the accidents could have been prevented and the European rotorcraft fleet safety record would have been better. The Rotorcraft Safety Roadmap (RSR) lays out a proposal to investigate and research, in the EU institutions and/or agencies, whether there is any kind of financial support that can be used to increase the safety of helicopter operations in the European Union. This research was conducted in order to provide direct information to the rotorcraft community, with guidelines for the users, operators and industry in this specific market.

REVIEW OF THE PREVIOUS EU FUNDING PROGRAMMES FOR THE AVIATION INDUSTRY

In order to obtain financial support from the European Union, it is relevant to have the endorsement of the rulemaking authorities and regulators worldwide. For instance, when the rule for the 8.33 kHz radio equipment implementation was laid down by EC Regulation 1079/2012 and the deadline for implementation was set for 1 January 2018, the justification for the financial support request was strong enough to ensure partial funding. Therefore, the Civil Aviation Authority (CAA) of the United Kingdom (a former EU member) was able to make a proposal for a partial funding scheme in order to support aircraft operators. It was possible to provide part of the total cost for equipment purchase and related installation. The programme information can be

found here and the eligibility criteria for the application here. This is a good example that could be used as a benchmark for future financial support on public request. It is significant to create sponsorship to ensure safety within the European rotorcraft network. [1][2]

REVIEW OF CURRENT EU FUNDING PROGRAMMES FOR THE AVIATION INDUSTRY

The current priority in Europe is having network and infrastructure connectivity at the same level, thus funds were provided to the programmes that could achieve this connectivity. A list of the current funds can be found here. EU funding programmes for the transportation section are defined by these Regulations: the Trans-European Transport Network (TEN-T) regulation, Section 5 and the Connecting Europe Facility (CEF) Regulation.

Regarding the exceptional situation due to the COVID-19 crisis and the current EU rules that influence the transportation sector, it could be observed that there are restrictions regarding the funding opportunities for rotorcraft safety equipment and technology.

Therefore, different approaches should be considered. The Chief Engineer at EASA, Pascal Medal, the Senior Research Officer at EASA, Emmanuel Isambert and the Senior Partner at IDP European Consultants, Lorenzo Costantino have recommended the following three main approaches:

1) Air traffic management- Single European Sky ATM Research (SESAR)

Articles 24 and 26, under the Air transport infrastructure part, are the main driving force for the funding of technology implementation. These Articles can be observed in list 1 in the Annex. This could serve as an entry point for implementation of equipment that could also benefit the airspace capacity and the quality of infrastructure, or help with improvement of the low Instrument Flight Rules and/or Visual Flight Rules (IFR/VFR) route efficiency in general aviation operations. Current SESAR open calls can be found here.

2) Research projects

Regarding the research funding, the entry point could be considered differently, for instance, when the project could enable smarter, greener and more integrated transport in Europe. The current scheme “HORIZON 2020” can be found here and the next programme “Horizon Europe” here. These schemes contain current open calls for funding. An overview of the financial programmes and guidelines for the applications is also available. Innovation and Networks Executive Agency (INEA) is the authority in charge of funding implementation with a special position in innovations and networks. Their main goal is to boost the efficiency of European transport and to improve the execution of projects funded by the above-mentioned programmes. It should be mentioned that it would be difficult to find funds for non-certified equipment implementation. [3][4][5][6][7]

3) European structural and investment funds (ESIF) for local authorities

These funds are given to the local authorities of EU members, and could be used as an entry point to finance an implementation, although the chances of gaining such support are low due to unsuitable open calls for the rotorcraft operators. If such upgrades regarding the installation of safety equipment could benefit the public safety, a specific operator has a possibility to apply for such funds in the specific local authority or region and access the structural and investment funds. Equipment installation could also be funded through the ministry of transport or the National Authority for Aviation (NAA) if it is a mandatory technical requirement. It must be mentioned nevertheless, that the installation and purchase of equipment on a voluntary basis will not be applicable, and therefore, the possibility of obtaining such funds will be lower. [8]

REVIEW OF THE CURRENT EU FUNDING PROGRAMMES FOR TRAINING ACTIVITIES

Another option for funding could be on training activities because they are also a viable tool for increasing the safety of the rotorcraft fleet. Besides, it would be a great opportunity and an accessible aim regarding the application for funds, especially in the aftermath of COVID-19. The ERASMUS + program could benefit these activities, especially in funding opportunities for organisations. That training should focus on enhancing safety aspects and at the same time, foster technical training activities to enrich the guidelines led by Continued Aviation Education (CAE), which is a new concept for RSR. The training of accountable managers must be a priority for operators. Depending on the specifics of the request, it could be financed in this order: EU – EASA – operators. It should be possible to apply from January 2021 and receive funding around March/April 2021.

CONCLUSION

EASA, NAAs and stakeholders are engaged in some new actions that can support the challenge of increasing the safety of helicopter operations. Moreover, the protracted crisis due to the pandemic may soon reverse the positive trend in the development of technology for aviation safety. Furthermore, the European institutions are focused on coping with the huge difficulties that the economy is suffering after the aviation crisis due to COVID-19, and this is changing the current decision-making priorities. Therefore, EU public expenditure will be a trade-off between the financial effects of the current crisis and their priorities[1] (2019-2024).

After careful consideration of the current regulations and taking into account the current implications of the COVID-19 crisis, it could be observed that the installation of new rotorcraft safety equipment technology is not the priority, and there are no direct funding opportunities for such undertakings. One of the main issues is the instability in the aviation sector because we are living through a period divided into two phases: the phase for anticipating shocks, and the phase for implementing actions after an unexpected event such as the current COVID-19 pandemic. However, it is time to put together, as a unique leading platform, all the viable forces of the rotorcraft community: the European helicopter industry, authorities and operators, by building a better network for the development of safety technology and the implementation of safety equipment.

ANNEX

Article 24, Infrastructure components:
1. Air transport infrastructure shall comprise, in particular:
(a) air space, routes and airways;
(b) airports;
(c) the connections of the airports to the other modes in the trans-European transport network;
(d) associated equipment;
(e) air navigation systems, including the new-generation European air traffic management system (the "SESAR system").”

Article 26, Priorities for air transport infrastructure development:
In the promotion of projects of common interest related to air transport infrastructure, and in addition to the priorities set out in Article 10, priority shall be given to the following:
(a) increasing airport capacity;
(b) supporting the implementation of the Single European Sky and of air traffic management systems, in particular those deploying the SESAR system;

[1] Political Guidelines for the Next European Commission 2019-2024, July 2019

(c) improving multimodal interconnections between airports and infrastructure of other transport modes;
(d) improving sustainability and mitigating the environmental impact from aviation.

List 1. [4]

LIST OF ABBREVIATIONS

CAE - Continued Aviation Education
CEF - Connecting Europe Facility
COVID – Corona Virus Disease
EASA – European Union Aviation Safety Agency
EU – European Union
INEA - Innovation and Networks Executive Agency
NAA – National Authority for Aviation
RSR – Rotorcraft Safety Roadmap
SESAR - Single European Sky ATM Research
TEN-T – Trans-European Transport Network

REFERENCES

[1] 8.33 kHz radio equipment for the UK's general aviation fleet, 2015-UK-TM-0150-M, INEA, https://ec.europa.eu/inea/en/connecting-europe-facility/cef-transport/2015-uk-tm-0150-m [Accessed: 7/8/2020]

[2] CAP 1501, 8.33 kHz EU grant funding: Eligibility criteria, Civil Aviation Authority Version 2, 23 May 2018, https://publicapps.caa.co.uk/docs/33/CAP1501_833ClaimCriteria_V2_1.pdf [Downloaded: 7/8/2020]

[3] European Commission Mobility and Transport, Infrastructure and Investment, https://ec.europa.eu/transport/themes/infrastructure_en [Accessed: 7/8/2020]

[4] REGULATION (EU) No 1315/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU, TEN-T regulation, Section 5 and CEF Regulation https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013R1315 [Downloaded: 7/8/2020]

[5] SESAR Joint Undertaking, Activities-ongoing projects, https://www.sesarju.eu/activities-projects [Accessed: 7/8/2020]

[6] Horizon 2020, Work Programme 2018-2020, 11. Smart, green and integrated transport, European Commission Decision C(2020)1862 of 25 March 2020, https://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-transport_en.pdf [Downloaded: 7/8/2020]

[7] Horizon Europe - the next research and innovation framework programme, https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme_en [Accessed: 7/8/2020]

[8] European structural and investment funds, https://ec.europa.eu/info/funding-tenders/funding-opportunities/funding-programmes/overview-funding-programmes/european-structural-and-investment-funds_en [Accessed: 26/8/2020]

[9] Erasmus+ funding programme,https://ec.europa.eu/info/education/set-projects-education-and-training/erasmus-funding programme_en#:~:text=Erasmus%2B%20funding%20programme,Erasmus%2B%20is%20the%20EU's%20programme%20to%20support%20education%2C%20training%2C%20youth,for%20activities%20with%20partner%20countries. [Accessed: 26/8/2020]