



MESAFE [EASA.2022.C07]

D-7.4 - FINAL REPORT AND DISSEMINATION EVENT



Disclaimer



Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Union Aviation Safety Agency (EASA). Neither the European Union nor EASA can be held responsible for them.

This deliverable has been carried out for EASA by an external organisation and expresses the opinion of the organisation undertaking this deliverable. It is provided for information purposes. Consequently, it should not be relied upon as a statement, as any form of warranty, representation, undertaking, contractual, or other commitment binding in law upon the EASA.

Ownership of all copyright and other intellectual property rights in this material including any documentation, data and technical information, remains vested to the European Union Aviation Safety Agency. All logo, copyrights, trademarks, and registered trademarks that may be contained within are the property of their respective owners.

Reproduction of this deliverable, in whole or in part, is permitted under the condition that the full body of this Disclaimer remains clearly and visibly affixed at all times with such reproduced part.

DELIVERABLE NUMBER AND TITLE:MESAFE, D7.4CONTRACT NUMBER:EASA.2022.C07CONTRACTOR / AUTHOR:Deep Blue

IPR OWNER: European Union Aviation Safety Agency

DISTRIBUTION: Public

| APPROVED BY: | AUTHOR | REVIEWER | MANAGING DEPARTMENT |
|--------------|--|----------|---------------------|
| | Vera Ferraiuolo, Paola Tomasello, François Brambati, | | |
| | Paola Lanzi, Marta Cecconi | | |

DATE: 03.05.2024

SUMMARY

Problem area

MESAFE intended to overcome challenges preventing the effective implementation of the Aeromedical certification process for pilots and air traffic controllers with regards to the incapacitation risk associated with mental health conditions. The project aims at providing evidence-based recommendations for new medical developments for the early diagnosis as well as treatment of mental health conditions which could pose a safety risk for aviation and would consequently lead to pilot and ATCO unfitness or the limitation of their licence privileges for safety purposes.

Description of work

This document ("D-7.4 Final Report and Dissemination Event") reports on the evaluation of the impact of the dissemination activities implemented by MESAFE following the delivery of the dissemination plan at the beginning of the project and according to the related KPIs set in "D-7.1 Communication, Dissemination, and Knowledge-Sharing Plan and Actions".

Results and application

As the communication and dissemination activities and the stakeholder engagement process aim to maximise the promotion of all project results and to steer the MESAFE research, this report refers to all tasks of the MESAFE project.

To monitor the effectiveness of the communication & dissemination and of the stakeholder engagement activities, several Key Performance Indicators have been identified at the start of the project; overall, MESAFE reached all the objectives set with regards to the C&D and to the stakeholder engagement KPIs.

CONTENTS

| SU | MMAI | RY | 3 | | | |
|----|-------|--|----|--|--|--|
| | Prob | olem area | 3 | | | |
| | Desc | cription of work | 3 | | | |
| | Resu | Results and application | | | | |
| | CON | TENTS | 4 | | | |
| | ABBI | REVIATIONS | 6 | | | |
| 1. | Con | text | 7 | | | |
| | 1.1 | Background | 7 | | | |
| | 1.2 | Scope of the document | 7 | | | |
| 2. | Com | nmunication, Dissemination and Knowledge-Sharing Overview | 8 | | | |
| | 2.1 | Overview | 8 | | | |
| 3. | Com | nmunication, Dissemination and Knowledge-Sharing Products | 10 | | | |
| | 3.1 | Logo and logotype | 10 | | | |
| | 3.2 | Infographic(s) | 11 | | | |
| | 3.2.1 | Glossary of Mental Health for Aviation Safety | 11 | | | |
| | 3.2.2 | Surveys booklets | 12 | | | |
| | 3.2.3 | MIRAP Booklet | 14 | | | |
| | 3.3 | Website | 15 | | | |
| | 3.4 | Social Media Network | 15 | | | |
| | 3.5 | Scientific papers | 16 | | | |
| | 3.6 | Articles and Press | 17 | | | |
| | 3.7 | Dissemination Reports | 18 | | | |
| | 3.8 | Third-party events and conferences | 18 | | | |
| | 3.9 | Workshops | 19 | | | |
| | 3.10 | Stakeholders feedback | 21 | | | |
| | 3.10. | 1 D-1.1 - Report on the review of diagnostic measures | 21 | | | |
| | 3.10. | 2 D-1.2 - Report on the review of treatment options | 21 | | | |
| | 3.10. | 3 D-2.1 - Report on the analysis of the availability of diagnostic tests | 21 | | | |
| | 3.10. | · · · · · · · · · · · · · · · · · · · | 21 | | | |
| | 3.10. | · | 21 | | | |
| | | Final Dissemination Event | 23 | | | |
| | 3.11. | <u> </u> | 23 | | | |
| | 3.11. | • | 24 | | | |
| | 3.11. | 3 Minutes from Day 1 | 24 | | | |

| | 3.11.4 | Minutes from Day 2 | 27 |
|------------|------------------|---|-----------|
| | 3.11.5 | Reference materials | 29 |
| 4. Stakeho | | nolder Engagement | 30 |
| | 4.1 N | MESAFE's Stakeholders | 30 |
| | 4.2 | Cooperation with the Stakeholder Consultation Group | 30 |
| | 4.2.1 | Stakeholder Consultation Group meeting #1 | 31 |
| | 4.2.2 | Stakeholder Consultation Group meeting #2 | 31 |
| | 4.2.3 | Stakeholder Consultation Group meeting #3 | 31 |
| | 4.3 | Safety promotion materials for mental incapacitation risk management | 32 |
| | 4.3.1 | Evidence-based recommendations | 32 |
| | 4.3.2 | Training curricula and materials for Aeromedical Examiners and Medical Assessors | 32 |
| | 4.3.3 materia | User-centred toolkit for mental health management (mentioned in D7.1 as risk management promotils) | ion 33 |
| | | Promotion material for Peer Support Groups (mentioned in D7.1 as Human-centred toolkit for Peer t Groups) | 33 |
| 5. | Monit | oring and Success Criteria | 34 |
| | | | |

ABBREVIATIONS

| ACRONYM | DESCRIPTION |
|---------|---|
| AME | Aeromedical Examiners |
| ANSPs | Air National Service Providers |
| ATCEUC | Air Traffic Controllers European Unions Coordination |
| ATCOs | Air Traffic Controllers |
| ATM | Air Transportation Management |
| CANSO | Civil Air Navigation Services Organisation |
| C&D | Communication & Dissemination |
| D | Deliverable |
| EAAP | European Association for Aviation Psychology |
| EASA | European Union Aviation Safety Agency |
| ECA | European Cockpit Association |
| ESAM | European Society of Aerospace Medicine |
| ETF | European Transport Workers' Federation |
| HF | Human Factors |
| IATA | International Air Transport Association |
| ICAO | International Civil Aviation Organization |
| IFALPA | International Federation of Air Line Pilots' Associations |
| IFATCA | International Federation of Air Traffic Controllers' Associations |
| KoM | Kick-off Meeting |
| KPI | Key Performance Indicator |
| M | Month |
| MEG | Medical Expert Group |
| MIRAP | Mental Incapacitation Risk Assessment Process |
| MIE | Mental Incapacitation Event |
| SCG | Stakeholders Consultation Group |
| SE | Stakeholder Engagement |
| Т | Task |

MESAFE – Final report

1. Context

1.1 Background

The need for further research to tackle the issue of the incapacitation risk associated with mental health conditions arose after the dramatic Germanwings flight accident that occurred in the French Alps north-west of Nice in 2015. In particular, the accident raised awareness of the pilot's mental incapacitation risk for safety. This was recognized as a new hazard that requires attention and questions the traditional aeromedical certification approach, used to studying the mental processes of safety-critical operators from the point of view of cognitive functions, disregarding an assessment of personality traits, stress coping strategies and ultimately emotional regulation and stability. Thus, the need for integrating a HF perspective arose.

1.2 Scope of the document

This document aims to report on the strategy planned by MESAFE to raise the visibility and maximise the impact of the project and to involve project stakeholders. It is meant to describe the activities performed by the project and assess their success against a set of Key Performance Indicators identified at the beginning of MESAFE in the D-7.1.

2. Communication, Dissemination and Knowledge-Sharing Overview

2.1 Overview

A multilevel and progressive communication and dissemination plan was used to identify the best communication format and means of communicating the knowledge gained based on the dissemination goals and phases identified and embracing the entire target audience.

The communication and the dissemination of results were key activities of MESAFE, needed to maximise the impact of the project outcomes. With this purpose in mind, WP7 was entirely dedicated to covering this aspect. The dissemination effort of MESAFE spanned the whole duration of the project (24 months) and encompassed a series of strategic actions distributed along the full project extent.

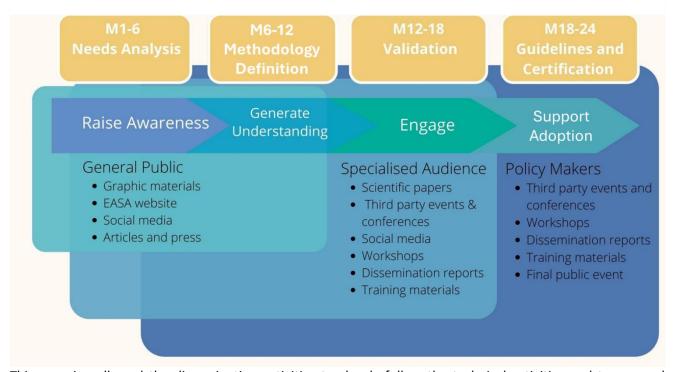
The Communication and Dissemination Plan, established at the launch of the project, was timely adapted to the progress and development of the project and to consider unexpected constraints and opportunities.

D-7.1 outlined the strategy for the project communication and dissemination of results, comprising:

- The description of the key dissemination goals (namely to raise awareness about the project, to generate understanding around the project, to engage stakeholders and to maximise the project impact).
- The **description of key messages** for the different phases of the project (about what MESAFE is, why there is a need for the project, and what MESAFE would deliver).
- The **description of the target audience** to be reached (split in general public, specialised audience, and policy makers, governmental and international bodies; in addition to them, the stakeholders Consultation Group see also "D-7.2 Stakeholder Management Plan and Actions").
- The **dissemination approach**, resulting from a match between the identified audience and goals with the communication channels throughout each phase of the project.

The mapping above shows the intersection between each project phase, describing the technical activities performed in tasks 1-6; it highlights how the communication approach follows and matches the needs and technical evolution of the project.

Figure 1 Infographic communication approach



This mapping allowed the dissemination activities to closely follow the technical activities and to proceed alongside them; this made the communication more effective, by providing meaning and value to the communication activities.

3. Communication, Dissemination and Knowledge-Sharing Products

Below is the description of the dissemination actions implemented by MESAFE, either scheduled at the beginning of the project or implemented following evaluation during the project duration.

3.1 Logo and logotype

Objectives: Inform and Raise Awareness.

The logo was designed to keep the project communication consistent and to promote awareness of the project. All MESAFE communication and dissemination activities and products were framed by the logo and visual identity of the project. The logo gives a conceptual representation of the project, is the basis for the project graphical identity, and is graphically appealing and manageable. The logo is the trait d'union of the project, which makes each element of the graphical identity immediately ascribed to the project, helping to consistently communicate and disseminate the project.

The MESAFE logo has been developed upon the idea of conveying the message of support to all the three subjects involved in the project assessment. Specifically, the logo encloses the archetypes of the propeller (a symbol of aviation) and of the circle (a symbol of support between equals and the embrace of diversity).

To convey the key concepts of the project (dynamic assessment and safeguarding of mental health for the protection of aviation safety), the project was graphically represented by the chromatic fusion (blue-yellow-green) and geometric balance (circles-triangles-arcs).

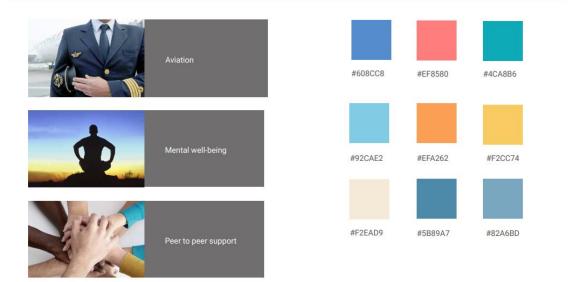
A shot from above illustrates the harmony in the three figures: the pilot (blue), the air traffic controller (yellow), and the doctor (green), which are all in harmony both with each other and with the observer.

■ Figure 2 MESAFE Logo





Figure 3 Graphic Identity Colour Palette



3.2 Infographic(s)

Objectives: Raise Awareness, Generate understanding.

Multiple infographics were developed to present and accompany all the content produced by the project to easily visualise and communicate the most relevant information about the project and the outcomes generated.

3.2.1 Glossary of Mental Health for Aviation Safety

At the end of 2022, MESAFE launched the periodic publication of a series of cards constituting a Glossary of Mental Health for Aviation Safety. Overall, 37 cards were produced and published.

Targeting the specialised audience (i.e., AMEs, ATCOs and pilots), the cards were meant to provide an explanation of key terms and topics related to MESAFE, and to specify the way in which the project uses them.

They covered such topics as mental health and mental disorders; psychotherapy and other treatment options for mental disorders; a description of the different mental health professionals; the impact of mental disorders' symptoms on safety (with a special focus on the concepts of mental fitness and mental incapacitation); the aeromedical examination process; peer support programmes, and take-home messages from the literature review documents (D-1.1, D-1.2, D-2.1, and D-3.1), which present the main messages of MESAFE in an easy to absorb format.

The cards were distributed on the project social media and were very well received, especially on LinkedIn.

Figure 4 Sample of Glossary Card



In Spring 2024, the cards will be collected as a booklet titled "Glossary of Mental Health for Aviation Safety" to be circulated among AMEs, per EASA request.

3.2.2 Surveys booklets

Towards the end of its first year of activity, MESAFE launched three surveys to collect feedback about gaps and needs in the current aeromedical mental fitness certification process and to understand the experience and point of view of both sides of the aeromedical mental health assessment.

One survey, targeting AMEs, was open from July to September 2022, and two others were available from April to May 2023, addressing ATCOs and pilots. The surveys were validated respectively with aeromedical experts, and pilots, ATCOs and aviation psychologists. Feedback was gathered from 102 AMEs, 166 pilots, and 165 ATCOs.

The results of these surveys were presented to EASA and the public through two separate booklets, promptly distributed on social media and on EASA's website¹.

¹ See https://www.easa.europa.eu/en/research-projects/mesafe-mental-health#group-downloads.

MESAFE – Final report

► Figure 5 Sample of the AMEs Survey Booklet



■ Figure 6 Sample of the ATCOs and Pilots Surveys Booklet



These infographics helped us to communicate the results of the surveys, providing insights on existing procedures for aeromedical mental health assessment, suggestions for improvement, identified gaps between available and needed resources, and factors influencing aviation professionals' acceptance of the assessment.

3.2.3 MIRAP Booklet

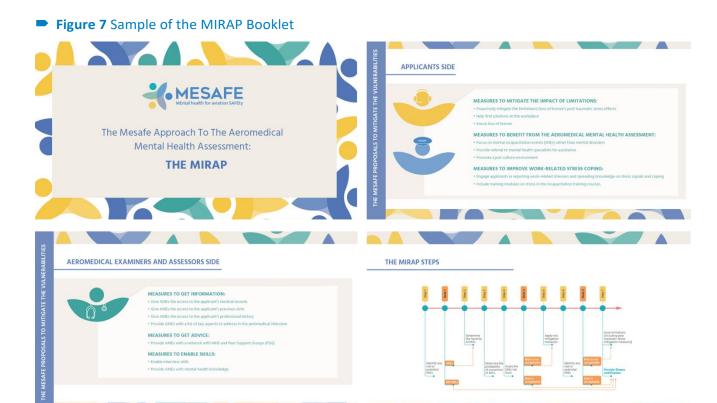
One of the main outcomes of MESAFE is the release of the "D-4.1 Report on The Risk of Incapacitation and Limitation of Licence Privileges", which implemented all results of previous MESAFE deliverables into a revised process for the aeromedical assessment of the risk that mental incapacitation poses to pilots and ATCOs and consequently to aviation safety. MESAFE intends to propose this process called MIRAP, which stands for Mental Incapacitation Risk Assessment Process, to update the current EU aeromedical procedures for assessing the risk of mental incapacitation of pilots and ATCOs.

The MIRAP process is intended to support the decision making of Aeromedical Examiners and Assessors. To develop the MIRAP, MESAFE has put at the centre of the research not only Aeromedical Examiners and Assessors but also the applicants (pilots and ATCOs), to evaluate how the mental fitness certification process affects them, and how they perceive it, while respecting EU fundamental rights.

MESAFE developed a booklet dedicated to sharing in a friendly way the key points of the proposed MIRAP. The booklet included an overview of the process and the main findings (deriving from desk research, from the MESAFE surveys, and from the workshops that MESAFE had with the European Medical Expert Group (MEG) that led to developing the MIRAP, and the MESAFE proposals to mitigate the vulnerabilities on the side of both the applicants and aeromedical examiners and assessors. It then describes at length the MIRAP process and its 7 steps:

- Step 1: identify any real or potential mental incapacitation events (MIE)
- Step 2: determine the severity of the MIE identified
- Step 3: determine the probability of occurrence of the MIE identified
- Step 4: apply the matrix to detect the risk level
- Step 5: apply risk mitigation measures
- Step 6: re-apply the matrix to identify the new risk level
- Step 7: decision and follow-up

Below is an example of the content of the MIRAP booklet, which is also available on EASA's website.



3.3 Website

Objectives: Raise Awareness, Generate understanding.

To maximise visibility and credibility of the project, external communication was done through the EASA website² instead of using a separate website. EASA dedicated a section of its website to the MESAFE project after the KoM on May 12, 2022, and timely uploaded all the MESAFE public documents to its website to make them available to the public.

3.4 Social Media Network

Objectives: Inform and Raise awareness.

MESAFE used social networks to **connect with its group of stakeholders and ensure a broader dissemination** of its findings and results. Indeed, social media networks enable easy access to many people and facilitate the building of a community, bringing together people interested in receiving and exchanging information on specific topics such as the ones addressed by the project. MESAFE used these channels to disseminate project findings and results, and to ensure constant connection with the key stakeholders.

The project chose two social media channels, X (formerly known as Twitter) and LinkedIn; LinkedIn mostly allowed communication towards specialised audiences, experts, and institutional bodies, while X targeted the general public.

² https://www.easa.europa.eu/research-projects/mesafe-mental-health MESAFE – Final report

Social media networks were used to spread general information about the project, to promote its deliverables once published on the EASA website, and to promote dissemination materials such as the ones described in paragraph 3.2.

■ **Table 1** Social Media Network performance

| LinkedIn (Sept. 2022 – Feb 2024) | X (Sept. 2022 – Feb 2024) |
|----------------------------------|---------------------------|
| Number of posts: 107 | Number of posts: 129 |
| Followers: 214 | Followers: 24 |
| Views: 27k | Views: 6k |

3.5 Scientific papers

Dissemination objectives: Raise awareness, Engage, and ensure Impact.

The MESAFE project technical team submitted paper proposals to several selected peer-review conferences and journals to promote the project and to be active in creating occasions for academic dissemination. The papers were meant to **help generate understanding of the project activities and increase engagement** with the stakeholders, especially with the specialised audience (such as the aviation industry, and the psychological and medical communities).

For the time being, the MESAFE team is working on two additional papers to be submitted by the end of the project.

■ **Table 2** MESAFE Scientific Papers

| Journal / Conference Name | Paper / Presentation Title | Author(s) | Abstract |
|---|--|---------------------------------|-------------|
| International Conference of Aerospace Medicine (ICAM2022) Paris, France 22-24 September 2022 | MESAFE: Mental Health for Aviation Safety | Paola Tomasello, Ries Simons | <u>Link</u> |
| International Conference of Aerospace Medicine (ICAM2022) Paris, France 22-24 September 2022 | Bridging Gaps Between Mental Health Assessment and Support Programs | | <u>Link</u> |
| | In preparation | | |
| Scandinavian Journal of Work, Environment & Health | Working title: Health evaluations for safety critical work — An occupational risk perspective | All | N/A |
| Aerospace Medicine and Human Performance | Working title: Incapacitation caused by mental health events: determine the risk! | All | N/A |
| RAMS / NATO STO Technical Course 2024 | Working title: Mental Health for Aviation Safety: The Mental Incapacitation Risk Assessment Process (MIRAP) | All | N/A |

3.6 Articles and Press

Dissemination objectives: Inform, Raise awareness, Engage.

MESAFE aimed to publish two articles on specialised magazines in the aviation sector. For this activity, MESAFE liaised with EASA prior to publication to identify when and where to share information about the project.

Two media outlets were identified and, following contact with the MESAFE team and several exchanges of information, dedicated an article to MESAFE:

- 1. FoxATM, a remote team of ATM specialists with an extensive network in the aviation field. In January 2024, they published an interview with Paola Tomasello, technical lead of the MESAFE project, on their blog. The interview provided a thorough overview of MESAFE, and its motivations and expected outcomes³.
- 2. AeroSafety World, Flight Safety Foundation's magazine, offering in-depth analysis of important safety issues facing the industry as well as a greater emphasis on timely news coverage. The MESAFE team is in touch with Linda Werfelman, senior editor of the magazine, to coordinate the publication of an article by the end of the project, around April 2024. The article would be based on an interview with MESAFE technical lead providing an overview of the project and its findings and on the consultation of all the publicly available materials published on EASA's website.

³ https://www.foxatm.com/blog/interview-of-paola-tomasello-mesafe-project MESAFE – Final report

3.7 Dissemination Reports

Dissemination objectives: Raise Awareness, Engage, ensure Impact.

MESAFE set the objective of delivering 6 dissemination reports by the end of the project. These reports were meant to **summarise the implemented dissemination activities and related results** for evaluation by EASA, providing a well-balanced mix of technical information and graphic elements.

To this end, MESAFE took part in 17 Technical Meetings with EASA, in which the project provided continuous updates on the dissemination activities recently performed or about to start, exchanging ideas with EASA and seeking its approval when needed. In addition, the MESAFE team was frequently in touch with EASA to coordinate the publication of several infographics (see 3.2) on EASA's website.

The dissemination reports were also meant to reach most of the project audiences and addressing all the stakeholders as appropriate. To reach this goal, MESAFE extensively targeted its Stakeholders Consultation Group (SCG), EASA's Medical Expert Group, the European Society of Aerospace Medicine (ESAM), the European Pilot Peer Support Initiative (EPPSI), and the European Association for Aviation Psychology (EEAP) through the organisation of dedicated meetings and the participation in relevant conferences. Operational aviation professionals were also involved in the validation of the project surveys. Finally, all the stakeholders were targeted through the preparation of several graphic materials.

See Chapter 4 for more information on the involvement of stakeholders in the project.

3.8 Third-party events and conferences

Dissemination objectives: inform, raise awareness, engage, and ensure impact.

These include conferences, other workshops and invited speeches. National and international conferences and other dissemination events were an important opportunity for MESAFE to both disseminate and refine the project work. MESAFE coordinated the participation in this kind of events with EASA in line with EASA communication strategies.

The MESAFE project was presented at the following third-party events:

■ Table 3 Third party events attended

| # | Event name | Location | Date |
|---|---|------------------------------------|---------------------------------|
| 1 | International Conference of Aerospace Medicine (ICAM 2022) | Paris, France | 22-24 September 2022 |
| 2 | ITAPA Convention 2023 "Aviation psychology: area of intervention and prospects" | Rome, Italy | 6 May 2023 |
| 3 | ICAO Air Navigation World 2023 "Shaping the Skies of Tomorrow" | Montréal, Canada | 28-31 August 2023 |
| 4 | European Association for Aviation Psychology (EAAP) Annual Meeting 2023 | Lyon, France | 26 August / 1 September 2023 |
| 5 | Workshop on Mental Fitness of Aviation Personnel | Chisinau, Moldova | 28-30 September 2023 |
| 6 | International Congress of Aviation and Space Medicine (ICASM 2023) | Abu Dhabi, United Arab Emirates | 26-29 October 2023 |

3.9 Workshops

Dissemination objectives: inform, raise awareness, engage, and ensure impact.

MESAFE involved the stakeholder in a series of workshops on specific topics linked to the project tasks, to ensure that the proposed solutions consider all relevant information and points of view and are agreed upon as much as possible. MESAFE planned 5 workshops to be carried out along the project life span; as agreed upon with EASA at the project launch, not all of them were implemented as workshops due to organisational reasons.

■ Table 4 MESAFE workshops

| Activity | Audience Targeted | Executed | Impact |
|---|--|------------------------------|--|
| 1 st workshop, executed in the form of a survey This survey invited end users, specifically AMEs and medical assessors, to map current gaps and issues in the mental fitness assessment of safety-critical personnel. | AMEs and medical assessors | October 2022 | Gap analysis and input collection feeding T1 and T2 and the new recommendations of the project |
| 2 nd workshop, executed in the form of a survey These two surveys collected input from pilots and ATCOs about gaps and needs in the current aeromedical mental fitness certification process. | Pilots, ATCOs (by involvement of IFALPA and IFATCA) | May 2023 | Input and needs collection feeding T2.2 and T2.3 and the new recommendations of the project |
| 3 rd workshop This workshop brought together AMEs and medical assessors, pilots, ATCOs, airlines and ANSPs to receive initial validation on the MESAFE preliminary concept and assess the acceptability of the proposed mental fitness assessment process. | AMEs and medical assessors, pilots, ATCOs, airlines, ANSPs | June 2023 | Dissemination + initial validation of the preliminary concept + feedback and input collection feeding T4 |
| 4 th workshop This workshop was held with EASA's Medical Expert Group, to examine the MESAFE approach to the aeromedical mental health assessment and the MIRAP process, assess their acceptability, and identify and discuss possible synergies. | EASA's Medical Expert Group | November 2023 | Input collection on guidelines formulation |
| 5 th workshop This workshop will consist of two pilot sessions of our training courses for validation purposes. These sessions will validate the training and guidance material on the updated mental fitness assessment with AMEs and medical assessors, and the human centred toolkit targeted to peer support groups and the trained peers involved in the peer support programs. | AMEs and medical assessors, peers involved in the peer support program | Expected in April 2024 | Validation |

3.10 Stakeholders feedback

From February to April 2024, MESAFE gave members of the SCG the opportunity to comment on the project public deliverables via a dedicated questionnaire, in the form of open questions asking for feedback for each deliverable.

In the timeframe allocated, feedback was provided by the CANSO representative and is reported below verbatim.

3.10.1D-1.1 - Report on the review of diagnostic measures

"The report is quite comprehensive and has high quality contents. Its usage should not be limited to the project, since it may form the basis for training programmes on mental health. However, due to the nature of the project, pre-assessment measures that could be used in preventive stages have not been included.

However, some links to support programmes have been made, but not developed. It is suggested to further explore preclinical assessment / diagnosis methods. It is also suggested to further explore all the windows of opportunity to manage mental health issues, specially as preventive measures outside/prior the medical assessment."

3.10.2D-1.2 - Report on the review of treatment options

"The report is quite comprehensive and has high quality contents. Its usage should not be limited to the project, since it may form the basis for training programmes on mental health. However, due to the nature of the project, non-clinical approaches that could be used in preventive stages have not been included.

However, some links to support programmes have been made, but not developed nor considered in the different levels of maturity in organizations. It is suggested to further explore pre-clinical or non-only-pharmacological treatment strategies on mental health potential issues, specially as preventive measures outside/prior the medical assessment."

3.10.3D-2.1 - Report on the analysis of the availability of diagnostic tests

"Good report on the availability of diagnostic tests. However, there is still a recognition of the fact that AMEs may have difficulties even applying known tests or even screening."

3.10.4D-3.1 - Report on the analysis of the suitability of screening and confirmation tests

"Good report that recognizes the limitations of the screening an confirmation tests, along with the limitations of some AMEs applying them. This reinforces the idea that preventive strategies in early detection of mental issues before becoming serious is key. Preventive measures may decrease both at the same time frequency and severity of candidates passing an assessment and afterwards being incapacitated."

3.10.5D-4.1 - Report on the risk of incapacitation and limitation of licence privileges

"This project is only focused on medical assessments processes for aeronautical certificates, and this is key since it does not cover other risks outside the certificate issuing.

The project assesses the risk of someone having had a successful medical assessment suffers afterwards an incapacitation episode due to mental issues. However, this issue is framed within the scope of medical / clinical attention upon application of a medical certificate.

No pre-clinical or sub-clinical situation is addressed, nor any possibility is considered regarding that the lack of preventive measures may combine with a false negative (non-detection) and result in an incapacitation or even worse, a safety issue without a previous incapacitation.

The only measure mentioned within the ANSPs is related to peer support. However, current peers are not MHP, and their area of action is limited (in ANSP CISM) to critical incidents, not overall situations nor mental discomfort situations of any nature. However, if the peer is trained according to ICISF standards, he/she can redirect the professional to an MHP, but has no tools nor the legal attributions to perform an assessment or a pre-clinical assessment.

However, we think that the severity and probability assessment may be difficult to develop and apply for AMEs, even for APE/MHPs and would need to be well developed and explained (e.g. RAT situation requires continuous coordination to have common views on how to apply).

The APE role (aeronautical psychological examiner) is very briefly mentioned, there are only references to MHP (mental health professional).

However, they set the need to define competence frameworks for MHP, and also for the peers participating in peer support programmes.

Peer support programmes are widely different in their conception, target, application and areas of intervention in different organizations, they may not be suitable for the functions mentioned There is a proposal where we have doubts about its legal foundations, regarding AMEs having access to medical history and the psychosocial situation of the license candidates.

Another proposal we envisage as not acceptable is the usage of peer support groups as a source of support for the AME assessment. Given the fact that the peer support programmes is based on confidentiality and the confidence on the peers, this may have an adverse effect on active peers and the activation levels of the programme.

There is a general recognition about the difficulty of identification of psychological issues by the AME, and also by the self-identification by aeronautical professionals. Our view is that the training is very limited and the dissemination efforts have been really scarce in the industry.

Only redirections to MHP are considered during medical assessments, not on day-to-day situations. Even in these cases, the AME may not have the capacity to perform a screening or a pre-assessment test.

3.11 Final Dissemination Event

Dissemination objectives: inform, raise awareness, engage, and ensure impact.

EASA organised a final dissemination event at the end of the MESAFE project to present its results. The "Mental health in aviation safety (MESAFE) conference" was an on-site event taking place on April 23-24, 2024, at EASA Headquarters in Köln, Germany.

3.11.1Agenda

The conference presented the outcome of the research project MESAFE. In particular:

- Evidence-based recommendations for updating the mental health requirements in Part-MED and Part-ATCO.MED in line with the medical developments.
- Evidence-based recommendations for mental health assessment methods suitable for aeromedical fitness assessments.
- A state-of-the-art synopsis that is perceived by the organisation as relevant to the conduct of the current study, i.e. recent (2015 to date) scientific literature, analytical methods.
- Guidance material on the updates to the fitness assessment of applicants for aeromedical examiners and medical assessors.
- Guidance material on mental health assessment and the updates to the fitness assessment of applicants for peer support groups and the trained peers involved in the peer support programs.
- Material to support the management of the proposed changes, e.g. presentations of the results obtained under this contract and training material suitable for professional audiences.

Below the event agenda.

■ Figure 8 MESAFE final event agenda







3.11.2 Participants

■ **Table 5** Project members participating in the conference

| Invited Participant | Organisation |
|-------------------------|--------------|
| Anthony Sverre Wagstaff | |
| Diederik De Rooy | |
| François Brambati | DBL |
| Marta Cecconi | DBL |
| Paola Lanzi | DBL |
| Paola Tomasello | DBL |
| Ries Simons | |
| Vera Ferraiuolo | DBL |

Overall, more than 160 people registered to the event; 132 (144 including speakers) took part in the conference across its two days.

3.11.3 Minutes from Day 1

The presentations shown during the day are available <u>on the MESAFE conference webpage</u>. Below are some highlights from the presentations.

3.11.3.1 Welcome

Dr Janis Vegers, Senior Expert-Medical, EASA, highlights that Europe is leader in research on mental health in the aviation sector, and that EASA intends to continue with the research, mentioning the scarcity of data as a driving factor necessitating further research in this field.

3.11.3.2 Strategical importance of mental health

Francesco Gaetani, Head of Aircrew and Medical Department, EASA states that the MESAFE results will be adopted to establish efficient and proportionate amendments to the certification standard. Gaetani underscored the significance of mental health in aviation safety, comparing it to the establishment of regulations addressing fatigue. Francesco then emphasises the complexity of mental health assessment methods and the need for validated approaches and promises continued collaboration and commitment to integrating mental health considerations into regulatory processes.

3.11.3.3 ICAO opening remarks

Dr Johanna (Ansa) Jordaan, Chief, ICAO Aviation Medicine Section acknowledges EASA's extensive research efforts and stresses the importance of collaboration and support between EASA and ICAO. Johanna then emphasises the great influence of mental health complexities across the aviation industry and the need for evidence-based approaches in practical implementation.

3.11.3.4 EASA role

Marcella Miano, Strategic management and research section manager discusses EASA's involvement in research and innovation, emphasising that new technologies extend beyond aircraft to include regulations and studies that benefit aviation professionals; Marcella states that innovation is also investing in medicine area.

3.11.3.5 MESAFE Project (Overview, Objectives, Team)

Paola Lanzi, Senior HF Expert, Deep Blue stresses how the MESAFE team worked collaboratively not only internally and with EASA, but also with the stakeholders and especially the end users. Paola highlights that there was a need of creating a community around mental health, of building a shared language, and of sharing knowledge so that MESAFE could work together with the community, for the community.

3.11.3.6 Psychodiagnostic tools – usefulness for aero-medical assessment

Paola Tomasello, Aviation psychologist, Deep Blue shares her presentation, available on the MESAFE conference webpage.

3.11.3.7 Use of psychoactive substances

Dr Ries Simons, Consultant Aerospace Medicine, ESAM shares his presentation, available on the MESAFE conference webpage.

3.11.3.8 Psychopharmaceuticals - compatibility with aviation duties

Dr Diederik De Rooy, Psychiatrist shares his presentation, available on the MESAFE conference webpage.

3.11.3.9 Mental Incapacitation Events - MIE

Paola Tomasello, Aviation psychologist, Deep Blue shares her presentation, available on the MESAFE conference webpage.

3.11.3.10 Mental Incapacitation Risk Assessment – MIRAP

Prof. Dr Anthony Wagstaff Director/Principal advisor in Aerospace Medicine, Norwegian Armed Forces shares his presentation, available on the MESAFE conference webpage.

3.11.3.11 Evidence-based recommendations

Paola Tomasello, Aviation psychologist, Deep Blue and Dr Diederik De Rooy, Psychiatrist share their presentation, available on the MESAFE conference webpage.

3.11.3.12 Glossary of Mental Health for Aviation Safety

Francois Brambati Consultant, Deep Blue shares his presentation, available on the MESAFE conference webpage.

3.11.3.13 Aeromedical mental health assessment – Surveys to collect the opinion of Aeromedical Examiners and Assessors and European pilots and ATCOs

Prof. Dr Anthony Wagstaff Director/Principal advisor in Aerospace Medicine, Norwegian Armed Forces and François Brambati, Consultant, share their presentation, available on the MESAFE conference webpage.

3.11.3.14 Mental Health Specialist: role in the process and information exchange

Dr Diederik De Rooy, Psychiatrist shares his presentation, available on the MESAFE conference webpage.

3.11.3.15 MESAFE Stakeholder Consultation Group

Vera Ferraiuolo, Head of Communication & Dissemination, Deep Blue shares her presentation, available on the MESAFE conference webpage.

3.11.3.16 Group Questions & Answers

At the end of the day, a Q&A session takes place.

[Q] What is the main problem you want to resolve by introducing these new methods?

[A] Cristian Panait's Answer: The primary goal of introducing these new methods is to address the critical issue of mental health within the aviation industry. Research has shown that incidents related to health in recent

years have often been linked to mental health. Mental health is inherently complex, making it challenging to understand and address effectively. However, by introducing new methods, we aim to enhance the efficiency of mental health assessment and management processes.

[A] Ries Simons' Answer: It's essential to recognise that many pilots may be facing mental health challenges, yet they may not report these issues to Aeromedical Examiners. Therefore, another objective of our efforts is to improve awareness and encourage pilots to seek support when needed. Prevention is also a key focus, as we work towards creating a safer and healthier environment for all aviation professionals.

[Q] What criteria do you request for ATCOs and pilots to be on the board (Aeromedical Operational Board)?

- [A] Ries Simons's Answer: The applicant should be present, and the board will be formed as needed. The composition may vary, but we seek individuals such as mental health specialists, operational experts, and different doctors who are essential for the board's functions. The applicant's presence is crucial as it provides valuable insight and contribution.
- [A] Cristian Panait's Answer: Today we presented the results of the study, and not all findings may be implemented as regulations. A thorough assessment must be conducted first, determining how to implement changes, whether through safety promotional materials or other means. Not all rules may need to be altered.

[Q] There are no boards in any country dealing with these matters, so should there be a rule change for this?

[A] Cristian Panait's Answer: If we wish to proceed with the board, it's possible, but it's currently premature to provide concrete details as further exploration is needed.

[Q] Mental health issues are not easy for AMEs to diagnose, and pilots often conceal it. If the industry continues to link pilots only with fitness to fly, how can they address their mental health?

[A] Cristian Panait's Answer: The assessment doesn't end when a pilot can no longer work, as it's a lengthy process considering various factors, including the airline's support. Severe mental health conditions may hinder work, but transparency is crucial for pilots to feel secure. It's essential to consider multiple components, and pilots should have the necessary time for recovery, with a backup plan if needed. Past work with Peer Support Programs (PSPs) focuses on this.

[Q] From the pilot's perspective, what happens if they disagree with the assessment?

[A] Cristian Panait's Answer: There are multiple procedures for the final decision, involving several individuals. The pilot can request a secondary review.

[Q] Is there a plan to develop a tool for assessing psychodiagnostic issues in the future?

[A] Paola Tomasello's Answer: While there are no concrete plans, research is underway to create such tools. It's challenging due to the need for cultural and regional norms, but if developed, it could be helpful. We recommend selecting the most appropriate method, conducting interviews, and potentially starting with our checklist. Additionally, mental health specialists can assist in developing a tailored checklist.

[A] Ries Simons's Answer: We are considering developing a self-assessment tool for pilots, usable also by AMEs. It's in progress, but not without challenges.

[A] Cristian Panait's Answer: There is still much work to be done in this area. Funding for this project has ended, but we could apply for additional funding for further mental health research. Collaboration is crucial, and the goal is to work with companies outside the EU to complement our efforts and ensure pilots feel secure and supported.

[Q] Even operators in the aviation sector must undergo mental health assessments. According to EASA, could these solutions be useful for them as well as for pilots and ATCOs?

[A] Cristian Panait's Answer: We have asked the industry for feedback on regulatory changes, but further evaluation is needed.

[Q] Peer Support Programs wonder if there will be guidelines for them, especially regarding reporting.

[A] Cristian Panait's Answer: The project will provide advice for PSPs. They are working on training peers and providing support, but specifics are yet to be determined. Peers have a preventive and educational role, and pilots should not be compelled to report to peers as it could jeopardise the program which should be avoided as PSPs are crucial for AMEs and safety processes.

[A] Ries Simons' Answer: PSPs are essential for AMEs and the safety process. Fortunately, we are collaborating with EPPSI, but they should have a more prominent role in preventing escalations.

[Q] There is exploration to adopt single-pilot operations, but there are many mental health issues as challenges are not just physical but also mental. How do we reconcile these?

[A] Cristian Panait's Answer: This deviates from the conference topic, but it's certainly something to consider and rule-making authorities should address these points.

[C] Comment from the Audience: I am concerned about the introduction of new tools, but the solution is to work with pilots and ATCOs, to motivate them and raise awareness of medical support. It's better to support them than to develop checklists. From my experience, in many cases, ATCOs have better social insurance than pilots: this should also be considered.

3.11.4 Minutes from Day 2

3.11.4.1 Welcome

Willy Sigl, Senior Research Officer, EASA highlights that among the 37 research projects currently managed by EASA, 5 of them focus on the medical aspect of aviation and that each project should generate tangible benefits. Willy stresses that for a project to perform well, it needs three key elements: the expertise of the Consortium, a great team synergy, and a strong commitment by its partners.

3.11.4.2 User-centred toolkit for mental health management

François Brambati, Consultant, Deep Blue shares his presentation, available on the MESAFE conference webpage.

3.11.4.3 Mental health promotion material for Peer Support Groups

Dr Ries Simons, Consultant Aerospace Medicine, ESAM shares his presentation, available on the MESAFE conference webpage.

3.11.4.4 Mental health training curricula and promotion materials targeted to AMEs and Assessors

Paola Tomasello, Aviation psychologist, Deep Blue shares her presentation, available on the MESAFE conference webpage.

3.11.4.5 Questions & Answers

A Q&A session takes place.

[Q] According to EASA's plan, will mental health training be mandatory for pilots? Training pilots on mental health would be beneficial for them and should be considered.

[A] Cristian Panait's Answer: Indeed, it is an important issue, crucial for ICAO and EASA as well, and the project has considered this. As of now, it is already strongly recommended but not mandatory for AMEs to openly speak to pilots and ATCOs on how to live mentally healthy lives just as they do for physical health, in order to work on prevention.

[Q] Can EASA say how the project outputs will be implemented in and translated to regulations?

[A] Cristian Panait's Answer: Implementation is not in the primary scope of the MESAFE project, but EASA will meet the rule makers to discuss this. We are not in the position now to provide more details on this.

[Q] We saw figures and statistics about mental health in young adults, who will be the pilots of the future, for the USA; do we have the same figures for Europe?

[A] Ries Simons' Answer: My presentation links an article on data regarding Western Europe. It is crucial to keep an eye on the prevalence of mental illnesses and issues and drugs usage among the youth and how these evolve in the EU.

- [A] Diederik de Rooy: Mental health is linked to society and these figures are going to increase; we need to prepare to work with that.
- [A] Cristian Panait's Answer: According with WHO, 70% of people will deal with a mental health issue somewhere in their lives.

[Q] Do we expect that all pilots and ATCOS dealing with a mental health issue will seek a PSP?

[A] Cristian Panait's Answer: The MESAFE project explored the medical side, not the operational side. For sure PSPs can help mitigate some stressors and find preventative solutions from the medical side, but they cannot influence or change airlines' business models, their way of scheduling work, etcetera. At some point, a disciplinary approach will prove useful, but it's outside today's scope.

[Q] MESAFE focuses on pilots and ATCOs, but aviation safety also relies on different professionals. On the recommendations side of MESAFE, are there mentions of cabin crew personnel and other aviation personnel?

[A] Cristian Panait's Answer: It was in the scope of the project to focus on ATCOs and pilots, but there is the possibility of extending some support tools and programs to other categories in order to foster and ensure safety.

[Q] Are there any recommendations or proposals for reengaging pilots who have had mental health conditions, as this seems to be a pain point?

[A] Diederik de Rooy's Answer: You need to assess their specific situation and mental health status. On a general note, reintegration is always desirable but other professional roles might be considered depending on their situation and personality. Some pilot will be willing to engage in peer support.

PAGE 28

[Q] If we knew that the majority of stress comes from scheduling and resting time, could this influence EASA's recommendations directed towards airlines with a medical preventative scope?

[A] Cristian Panait's Answer: This is outside today's scope, but we can capture this as a discussion topic and report to the operational team.

[A] Ries Simons' Answer: Having worked with fatigue for 20 years, I can say that EASA is well involved with respect to fighting this from the medical point of view, leading many projects dedicated to this theme. On the operational side, the AMEs could intervene on the pilot's or ATCO's roster proactively, to prevent mental health issues linked to sleep deprivation, jet lag, stress and so on.

[Q] After recovery, it can take a long time for pilots to come back to work, up to 10 months, due to paperwork and lengthy procedures; this may even cause a relapse in their condition. Is this inevitable?

[A] Cristian Panait's Answer: For sure this is a pain point, as pilots are not familiar with the process needed to come back to work. In the EU this is made more difficult as norms and regulations change from Country to Country. This could however be included in the recommendations and even more in the AME training to provide pilots of a clear pathway to go back to work and also information about what awaits them in the future, the possibility of a relapse, what mental health specialists to consult about it, and so on in order to help guide them.

[Q] You are talking about evaluation tools, but no validated tool exists for this kind of evaluation by the AMEs, is that right?

[A] Paola Tomasello's Answer: There are tests to measure the neuropsychological levels and other useful tests, but they can't be adopted alone; you need a combination of observation, interviews and other practices which we also mentioned yesterday, for example.

[A] Diederik de Rooy's Answer: We are not saying that you should not do tests, but adequate mental health specialist support is needed to deliver the correct diagnosis and treatment. Neuropsychologic assessments can be conducted upon referral of a MHS on a clinical indication.

3.11.4.6 Mental health in international context - Presentations panel

Speakers from ICAO, FAA, CAAC, ECA, and BALPA/IPAAC shares their presentation, available on the MESAFE conference webpage.

3.11.4.7 Global Mental Health Strategy discussions - Discussion panel

Speakers from ICAO, FAA, CAAC, ECA, and BALPA/IPAAC engage in a discussion panel.

3.11.4.8 Psychopharmaceuticals - Compatibility with aviation duties

Speakers from ICAO, FAA, CAAC, ECA, and BALPA/IPAAC engage in a discussion panel.

3.11.4.9 Questions & Answers and Conclusions

A final Q&A session takes place.

3.11.5 Reference materials

To consult the public dissemination materials and deliverables produced by MESAFE, please visit EASA's website⁴.

MESAFE – Final report

⁴ https://www.easa.europa.eu/en/research-projects/mesafe-mental-health#group-downloads

4. Stakeholder Engagement

Deliverable D-7.2 presents the stakeholders' management plan in detail. The document includes the definition of the selected stakeholders, the activities targeting them, and the success criteria identified to evaluate the impact of the stakeholders' engagement activities.

This chapter is dedicated to report on the results obtained with regards to the stakeholders' management activities and their related KPIs. For more information on how the feedback collected from stakeholders was integrated in the project results, please see D-5.2.

4.1 MESAFE's Stakeholders

MESAFE was a safety practitioner driven project, fostering the communication and cooperation among aeromedical examiners and medical assessors, mental health specialists, aviation psychologists, and airlines, ANSPs, and peer support groups. The project put at the centre of the research not only AMEs and medical assessors but also the applicants (pilots and ATCOs) to evaluate how the mental fitness certification process affects them, how they perceive it, and to assess the new recommendations that the project proposes.

To this end, MESAFE established a strong communication and cooperation process towards key stakeholders, identified as AMEs and medical assessors, pilots and airlines, ATCOs and ANSPs, peer support groups and trained peers, and rule-makers/regulators (EASA). These stakeholders were approached and involved in several ways throughout the project lifecycle, including:

- **direct involvement in the project** (e.g., involvement in the Stakeholder Consultation Group, participation in workshops and public events organised by the project),
- **dissemination of project objectives, milestones, achievements**, and **outcomes**, as well as main activities and results during conferences and other professional events.

In this way, the stakeholders were able to provide key contributions towards the development and validation of the project outcomes, shaping the project and ensuring its right direction. They also gained several indirect benefits from their involvement, associated with better skilled future workforce, increased awareness of key impact areas, and improved ability to plan by foreseeing upcoming changes with a whole-system perspective analysis.

4.2 Cooperation with the Stakeholder Consultation Group

At the beginning of the project, a Stakeholder Consultation Group was set-up as the main engagement means of the project. The SCG included AMEs and medical assessors, pilots and airlines (through IFATCA and IATA), ATCOs and ANSPs (through IFALPA and EUROCONTROL), rule-makers and regulators (EASA), and peer support groups and trained peers (through EPPSI, the European Pilot Peer Support Initiative).

Its experts complemented the expertise of the Consortium and acted as an independent consultation body to support the work of the project, providing review, recommendations, and feedback on project activities and

findings. To this end, MESAFE organised periodic **Stakeholder Consultation Group meetings** (see 4.2.1), met with them at several **third-party events** (see 3.8), and invited them to **participate in dedicated project-organised workshops** (see 3.9) to directly contribute to the progress of MESAFE, and to the **MESAFE final public event** (see 3.10) to be informed about the final project outcomes.

4.2.1 Stakeholder Consultation Group meeting #1

A first ad hoc meeting with the SCG was held on the 7th of February 2023 at 15.00-17.00 CEST. In addition to the MESAFE team, the following organisations attended: CANSO, EASA, EAAP, ECA, ESAM, ETF, EUROCONTROL, IATA, ICAO, and IFATCA.

The meeting opened with a welcome to the MESAFE Stakeholder Consultation Group and their roundtable presentation. A technical introduction of the MESAFE project, comprising its objectives, plans, and activities, followed. Then, MESAFE asked the SCG to present how the different organisations involved are approaching the topic of mental health, the initiatives already launched in the field, and their future plans: ESAM, ETF, ICAO, IFATCA, ECA, EAAP, IATA, and CANSO provided extensive feedback and information on the topic. The meeting closed with a wrap up and way forward, informing participants that all public deliverables and dissemination materials would be available on EASA's website.

4.2.2 Stakeholder Consultation Group meeting #2

The SCG Meeting #2 was held on the 30th of January 2024, at 11.00-12.30 CEST. The meeting saw the participation of ATCEUC, CANSO, EASA, EAAP, ESAM, ETF, EUROCONTROL, IATA, and IFATCA.

The meeting started with a roundtable allowing each participant to present themselves and followed with a presentation of the agenda of the day. Then, the project team presented the MESAFE approach to the aeromedical mental health assessment and the MIRAP process, which was then discussed by all participants. The identification and discussion of possible synergies and mitigations followed, with the deep involvement of the SCG, which provided several contributions the MESAFE team especially with regards to the Peer Support Groups role and the adoption of Just Culture. The meeting closed with a wrap up and way forward by Deep Blue and EASA, sharing the invitation to the MESAFE Final Dissemination Event.

4.2.3 Stakeholder Consultation Group meeting #3

A final SCG meeting is currently planned to be held in the context of the Final Dissemination Event (see 3.10).

4.3 Safety promotion materials for mental incapacitation risk management

Objectives: Engage, Making an Impact.

MESAFE aimed to develop safety promotion materials for policy makers, aeromedical examiners, applicants and peer support groups as key actions of the dissemination and stakeholders' engagement activities. Based on the outcomes of the implemented technical tasks, MESAFE developed these materials to equip key stakeholders with the skills they need to contribute to the achievement of the project's objectives.

At the beginning of the project, a preliminary list of safety promotion materials and the related topics was provided for four types of target audience: policy makers, aeromedical examiners, applicants and peer support groups and trained peers. The final list of topics was refined during the project based on the outcomes of the previous tasks and the consultations with EASA and the stakeholders, resulting in the following materials.

4.3.1 Evidence-based recommendations

Forty-four evidence-based recommendations were produced to support policy makers in updating the current European provisions on the aeromedical mental health assessment. The recommendations include guidance material. To be effectively disseminated, each recommendation was framed in a table, composed of the recommendation title, its description and its rationale.

4.3.2 Training curricula and materials for Aeromedical Examiners and Medical Assessors

MESAFE developed training curricula and materials for the Aeromedical Examiners and Assessors.

■ Table 6 Training curricula structure

| ٨ | Nodules | Objective | T | opics | hours | |
|---|--------------------------------------|--|---|--|-------|--|
| | | eligible for certification | 1 | Mental health and safety impact of mental disorders | | |
| 1 | Basic mental health knowledge | | 2 | Mental incapacitation | 1 | |
| | knowledge | | 3 | Weaknesses of the self-declaration principle & Cultural biases towards mental discomfort and seeking psychological help | | |
| | 4845 | | 1 | Previous MHS records | | |
| 2 | AME- Assessors/MHS cooperation | Define the criteria to call for the MHS advice | 2 | Conditions requiring the MHS advice (i.e. history of suicide attempts, of use of drugs, of use of psychopharmaceuticals) | | |
| 3 | The MIRAP | | 1 | Mental incapacitation events | 1 | |

| Modules Objective | | Objective | To | opics | hours | |
|-------------------|-------------------------------|---|----|--|-------|--|
| | | Describe how to determine | 2 | The MIRAP steps | | |
| | | the acceptable risk level | 3 | Tools & templates | | |
| | | | 1 | Tests | | |
| 4 | Tools | Identify suitable tools for the aeromedical MH assessment | 2 | Questionnaires | 1 | |
| | | | 3 | Interviews | | |
| 5 | Interview skills | | 1 | Communication styles | -1 | |
| , | interview skins | communication and interview skills | 2 | Interview skills | 1 | |
| | | | 1 | Acute and chronic stress management strategies | | |
| 6 | Aeromedical stress management | Identify strategies for stress management | 2 | Loss-of-medical post-traumatic stress management | 1 | |
| | | | 3 | Link with instructors and peers | | |

As it is possible to see in the table, the training included 6 modules, for a total duration of 6 hours.

The description of the training content and plan is available in the D7.3.

4.3.3 User-centred toolkit for mental health management (mentioned in D7.1 as risk management promotion materials)

MESAFE developed **risk management promotion materials for aeromedical certificate holders**, to allow them to early detect and self-manage their mental health risk factors. Promotion materials were developed to help reduce and neutralise the mental health risk factors by identifying, assessing, and addressing risk before it happens.

A detailed description of the user-centred toolkit for mental health management is available in D-7.3.

4.3.4 Promotion material for Peer Support Groups (mentioned in D7.1 as Human-centred toolkit for Peer Support Groups)

MESAFE developed **promotion materials for peer support groups** to use in their activities to promote the early management of mental health and well-being issues.

A detailed description of the mental health promotion materials for peer support groups is available in D-7.3.

5. Monitoring and Success Criteria

To monitor the effectiveness of the communication and dissemination activities, several indicators have been identified.

■ Table 7 KPIs and Success Criteria for C&D

| Dissemination product | Description of KPIs | Targets | Results achieved (until April 2024) |
|-----------------------|--|----------------------------------|-------------------------------------|
| Social media | # of posts on social media platforms (per month) | 12 | 14 |
| | # of followers (Twitter & LinkedIn) | 200 | 363 |
| Press and media | # of articles (online & printed) | 2 | 1 published + 1 planned |
| Materials | # of brochure/posters/infogr aphics | 2 | 4 |
| | # of dissemination reports | 6 | Achieved |
| Publications | # scientific publications | 1-2 | >2 |
| Events | # of organised workshops/events | 6 | 4 + 2 surveys ⁵ |
| | # of participants to the MESAFE workshops | About 15/per event (75 in total) | 452 ⁶ |
| | # of external participants to the MESAFE final dissemination event | At least 50 | 132 |

Overall, MESAFE reached all the objectives set with regards to the C&D KPIs.

The project managed to establish itself on social media, especially on LinkedIn, gaining a considerable following (more than 200 followers by the end of the project) and keeping a steady rhythm of posting on both platforms while also producing original and quality content. This helped to establish around MESAFE a community of specialists who were not only informed on the topic of the project but also actively involved in its activities. Graphic materials greatly contributed to attracting followers and helping to disseminate the project in a clear, easy to understand way.

⁵ As suggested by EASA, the first two workshop were replaced by a set of surveys.

⁶ For the time being, MESAFE reached over 452 people with its surveys and workshops.

The appreciation for MESAFE is also shown by the attention of the specialised press, who promptly dedicated articles to the project, and by the acceptance of scientific presentations and papers.

Finally, the wide response to the MESAFE surveys and the constant participation of our SCG in the MESAFE workshops testifies for the interest of the community of stakeholders towards the project.

MESAFE also identified a **set of indicators to keep track of the progress** of the activities carried out at project level. The indicators to be reached by the end of the project (M0+24) are reported below.

■ **Table 8** KPIs and Success Criteria for stakeholders' engagement

| Activity | Indicator | Target | Results achieved |
|---|--|---|--------------------------------|
| Stakeholder Consultation Group (SCG) involvement | Stakeholders included by the SCG | At least one per each category ⁷ | At least one per each category |
| | Average attendance to SCG Meetings | 50% ⁸ | 66% |
| | Average SCG meetings attended by each member | 50% ⁹ | 65% |
| Workshops | N° of participants to the MESAFE workshops | About 15/per event (75 in total) | 452 ¹⁰ |
| External events | N° of presentations at third party's events | 5+ | 8 |
| Final event | N° of participants to the MESAFE final event | 50+ | TBD |
| Training Curricula | Number of modules developed | 3 | 6 |
| User-centred toolkit for mental health management | Guidance materials | NA | Delivered as described in 4.3. |
| Promotion Material for PSGs | Guidance materials | NA | Delivered as described in 4.3. |
| Sharing of results | On the project website | 100% | 100% |

MESAFE also reached all the objectives set with regards to the stakeholder engagement KPIs.

The establishment of a Stakeholder Consultation Group (SCG) was successful, as MESAFE managed to include at least one representative per each category. Their involvement was effective, leading to the representatives

PAGE 35

⁷ AMEs and medical assessors, pilots and ATCOs, and EASA.

⁸ At least 50% of the Stakeholder Consultation Group members attend each meeting.

⁹ Each member attends at least 50% of the Stakeholder Consultation Group meetings they are invited to.

¹⁰ For the time being, MESAFE reached over 452 people with its surveys and workshops.

attending more than the minimum number of meetings and workshops, and providing relevant feedback on the project deliverable through a dedicated questionnaire as well.

MESAFE established connection with stakeholders outside of the SCG as well, as shown by the participation in the project surveys; in addition, the high number of third-party events is a further indicator of the interest around the project.

The process of strictly involving the stakeholders in the project activities goes on with the organisation of the MESAFE final event and will be supported by the nearing delivery of the Training curricula and materials targeted to Aeromedical Examiners, the User-centred toolkit for stress management, and the Mental risk management promotion material.



European Union Aviation Safety Agency

Konrad-Adenauer-Ufer 3 50668 Cologne Germany https://www.easa.europa.eu/research-projects/mesafe-mental-health

Mail EASA.research@easa.europa.eu
Web www.easa.europa.eu

