

D2.2 Final Communication and Dissemination Report

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Engage

THE SESAR KNOWLEDGE TRANSFER NETWORK

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Abstract

This deliverable reports on the communication and dissemination activities carried out by the Engage consortium over the duration of the network.

Planned activities have been adapted due to the Covid-19 pandemic, however a full programme of workshops and summer schools has been organised. Support has been given to the annual SESAR Innovation Days conference and there has been an Engage presence at many other events.

The Engage website launched in the first month of the network. This was later joined by the Engage 'knowledge hub', known as the EngageWiki, which hosts ATM research and knowledge. The wiki provides a platform and consolidated repository with novel user functionality, as well as an additional channel for the dissemination of SESAR results.

Engage has also supported and publicised numerous research outputs produced by PhD candidates and catalyst fund projects.

The opinions expressed herein reflect the authors' views only. Under no circumstances shall the SESAR Joint Undertaking be responsible for any use that may be made of the information contained herein.

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1 Introduction

1.1 About the Engage KTN

Engage is the SESAR Knowledge Transfer Network (KTN) which launched in January 2018. Engage is managed by a consortium of academia and industry, with the support of the SESAR JU, to promote and facilitate the development of air traffic management research in Europe. Its focus is two-fold: to inspire new researchers and to help to align SESAR exploratory and industrial research through a wide range of activities and financial support actions. The network aims, in particular, to stimulate the transfer of the results of fundamental research to ATM application-oriented research, and of application-oriented research to industrial research.

1.2 Objectives of this deliverable

The Communication Plan of Engage (D2.1, also including website and visual identity material) aimed at communicating Engage outcomes and other related ATM research initiatives, and this deliverable, D2.2 Final Communication and Dissemination Report, assesses the activities that have taken part within WP2. The goal of WP2 has been to efficiently and successfully manage all the tasks related to “communication” (including the organisation of workshops and wide-ranging dissemination activities using classical and innovative methods, e.g. Engage website and knowledge hub, Twitter, LinkedIn) whilst providing “support to SJU initiatives” (including supporting the organisation of the SESAR Innovation Days conference and coordinating with the SESAR Scientific Committee). The Communication Plan (D2.1) set up the guidelines to achieve these objectives, identifying the relevant communities and fora, the most suitable communication channels to address them and the appropriate communication actions. This deliverable reports the completed tasks, audiences reached, and communication actions taken along the duration of the project.

The communication and dissemination of the objectives, actions and results of Engage were organised around an understanding of target audiences, and a coordinated plan that involved:

- enhancing the quantity and quality of collaborations between the wide range of SESAR ER projects, fostering win-win situations, avoiding overlap and duplication of efforts, bridging potential research gaps;
- disseminating the results and outcomes from the observatory, roadmap, and innovative research activities funded within Engage (thematic challenges, workshop outputs, catalyst funding projects), and making the necessary links with wider SESAR ER projects outcomes;
- promoting the Engage repository platforms: concepts, projects, video, code to the SESAR ER projects and the ATM research community;
- all Engage Calls (PhD/thesis funding, thematic challenges, catalyst funding) being posted on the knowledge hub, in collaboration with the **SJU Communications Coordination Group** and distributed through the SESAR e-news.

1.3 Deliverable structure

- Introduction
- Communication and dissemination activities
- Dissemination of SESAR ER results
- Best practices and lessons learned
- Appendices logging Engage communication and dissemination activities

2 Communication and dissemination activities

2.1 Introduction

With a focus on inspiring new researchers and helping to align exploratory and industrial research (ER and IR) through a wide range of activities and financial support actions, Engage has been a project with a high potential for exposure. Engage has been an outward-facing network that has helped to advance innovation and collaboration through taking part in many external events, ensuring its presence in the industrial and academic worlds has been widespread and constant. Engage as a project has also organised its own events, such as summer schools and workshops.

The Engage communication plan (D2.1 [6]) organised tasks into four main activities:

- (1)** Producing one blog post approximately every month of the project: This task was substituted by a wider presence in social media, and an Engage Twitter account was created.
- (2)** Close cooperation with the other dissemination channels: SJU Communications Coordination Group, Engage website, SESAR Scientific Committee, LinkedIn, Forum, Twitter etc. This was successfully achieved and is explained in the following subsections.
- (3)** Specific dissemination leveraging on the events organised by Engage (workshops, SESAR Innovation Days, summer schools and other education and training actions). These actions have been coordinated through the knowledge hub and website.
- (4)** Establishing a collaborative consortium agreement of the dissemination and communication actions by all partners. The dissemination activities have been planned in advance on an annual basis, enabling the integration of dissemination suggestions, lessons learned, opportunities, threads, strengths and weaknesses across the various workpackage activities. This was successfully achieved despite the challenges of the Covid-19 pandemic, as explained below.

2.1.1 Covid-19 pandemic

Deliverable 2.1 [6] was prepared in February 2018 before the Covid-19 pandemic – during the pandemic, planned Engage events were rescheduled and moved on-line. Despite the need to replan events and move on-line, the team has ensured that communication and dissemination activities have continued.

The team proposed a higher effort in communication through alternative media, both internally and for external events, and Engage was successfully part of all events as originally planned. There was also a higher effort on social media communication to replace the face-to-face events and contact with other projects and industry colleagues, using Twitter as the main social media platform for Engage, followed by LinkedIn.

Whilst most of the second half of Engage communication activities were held on-line, the team worked towards a regular Engage presence at events, and communication and dissemination activities were adapted so a successful communication and dissemination report could be presented on this deliverable.

2.2 Engage events

2.2.1 Workshops

A total of 14 thematic challenge^[1] workshops were organised by Engage (listed in Table 1), which brought together a wide range of ER and IR researchers. These were originally planned to be held as face-to-face events, however Covid-19 disruption led to workshops planned for 2020 having to be rescheduled to later dates and held virtually.

Table 1: Engage thematic challenge workshops

| Thematic challenge | Workshop title | Date | Location | Participants/registrations* |
|--------------------|--|---------|---------------------------------|-----------------------------|
| TC4 - 1st workshop | Novel and more effective allocation markets in ATM | 25OCT18 | London | 28 |
| TC2 - 1st workshop | Data-driven trajectory prediction | 06NOV18 | Barcelona | 32 |
| TC3 - 1st workshop | Efficient provision and use of meteorological information in ATM | 13NOV18 | Brussels | 26 |
| TC1 - 1st workshop | Vulnerabilities and global security of the CNS/ATM system | 27MAR19 | Brussels | 42 |
| TC3 - 2nd workshop | Efficient provision and use of meteorological information in ATM | 05NOV19 | Brussels | 17 |
| TC4 - 2nd workshop | Novel and more effective allocation markets in ATM – the way forward | 12NOV19 | Madrid | 21 |
| TC2 - 2nd workshop | Data-driven trajectory prediction | 02DEC19 | Athens (co-located at the SIDs) | 37 |
| TC1 - 2nd workshop | Vulnerabilities and global security of the CNS/ATM system | 10NOV20 | Virtual | 59 |
| TC2 - 3rd workshop | Data-driven trajectory prediction | 25JAN21 | Virtual | 66 |
| TC3 - 3rd workshop | Efficient provision and use of meteorological information in ATM | 27JAN21 | Virtual | 70 |
| TC4 - 3rd workshop | Economic incentives for future ATM implementation | 21JUN21 | Virtual | 67 |
| TC2 - 4th workshop | AI, ML and Automation | 03SEP21 | Virtual | 117 |
| TC3 - 4th workshop | Efficient provision and use of MET information in ATM | 09SEP21 | Virtual | 79 |
| TC1 - 3rd workshop | Vulnerabilities and global security of the CNS/ATM system | 15SEP21 | Virtual | 72 |

* Participants at face-to-face events; registrations for virtual events

¹ For further information about the four thematic challenges along with reporting of workshops held in 2021, please refer to D2.7 [7].

All material from the workshops, namely presentations, descriptions of challenges and workshop conclusions is public and published on the Engage thematic challenges web page [3].

In addition to the thematic challenge workshops, Engage also organised a small number of technical workshops each with a focus on a particular challenge faced by PhD students (e.g. building passenger itineraries). Furthermore, some catalyst fund projects organised their own workshops which are included in Appendix II.

2.2.2 Summer schools

Three summer schools were organised by Engage. The first was held in Belgrade, the second was planned to be held in Luxembourg but became a virtual event due to the pandemic, as did the third edition that would have been held in Trieste (listed in Table 2). The three-year summer school programme evolved from an initial focus on teaching PhD candidates some of the fundamentals of ATM and wider research practice, which by the third edition had moved to PhDs giving longer presentations linked to extended panel discussions with domain experts from industry. See D5.14 [9] for reporting of the most recent edition of the summer school.

Table 2: Engage summer schools

| Summer school | Date | Location | Programme | Participants* |
|-------------------|-----------------|----------|---|---------------|
| 1st summer school | 09-13SEP19 | Belgrade | https://engagektn.com/summer-school-2019/ | 40 |
| 2nd summer school | 21-25SEP20 | Virtual | https://engagektn.com/summer-school-2020/ | 86 |
| 3rd summer school | 30AUG21-02SEP21 | Virtual | https://engagektn.com/summer-school-2021/ | 97 |

* Including the Engage team

2.2.3 Supporting the SESAR Innovation Days

The organisation of the SESAR Innovation Days conference, from initial planning through to post-conference activities, has received support and expertise from Engage consortium members (led by EUROCONTROL), closely collaborating with the SJU as the organiser of the event.

Engage, via EUROCONTROL, chaired the SIDs Programme Committee for the review, selection process and preparation of the conference programme of the four conferences held during the timeframe of the KTN (2018-2021). This has included organising and publicising the Call for Contributions (full papers and poster abstracts), leading review and selection process and the preparation of the conference programme.

SIDs conference papers 2011-2020 (310 papers) have also been collated and republished in the EngageWiki research repository [5]. Information about the forthcoming SESAR Innovation Days conference and the proceedings from previous conferences are available from <https://www.sesarju.eu/sesarinnovationdays>.

2.2.4 Engage presentations

Engage members have disseminated KTN activities, primarily through presentations at workshops, conferences and meetings. Additionally, demonstrations have been given to showcase features of the EngageWiki.

Table 3: Engage presentations at events

| Type of event | Events |
|---------------|---|
| Workshop | Engage Thematic challenges Engage catalyst fund projects SESAR Digital Academy SESAR MET ER4 Modus ER4 project Fragmentation in Air Traffic and its Impact on ATM Performance EUROCONTROL Agency Research Team (ART) EASN Accelerated impact of academic aviation research for improved air transport for all European citizens ACI EUROPE-SESAR Exploring new concepts in air traffic management and airports Performance Assessment Work Forum |
| Conference | SESAR Innovation Days (2018, 2019, 2020, 2021) EGU General Assembly (2019) World ATM Congress (2019) EUROCAE Symposium (2019); USA/Europe ATM R&D Seminar (2019) Meteorological Technology World Expo Virtual 'Live' Conference for Aviation Meteorology (2021) |
| Meeting | SESAR Scientific Committee ASDA |
| Course | Engage summer school (2019, 2020, 2021) Convective and Volcanic Clouds (CVC) Training School (2021) Air Traffic Management short course (2018) |

The list of events with Engage presentations is available in Appendix I.

2.3 Dissemination activities

2.3.1 Website

To facilitate the communication, all Engage initiatives and results are accessible through the website (engagektn.com), offering a single portal of information for the various activities: workshops, summer schools, Calls for PhDs, the ATM concepts roadmap, Call for thematic challenges submission, repository, etc. Other communication channels have been used to actively promote content and drive traffic to the website.

The website was launched in the first month of the KTN and has provided a complete repository of activities until the launch of the EngageWiki [4], when some information was moved there. Some examples of what has been shared on the website are:

- Engage news: containing news about the KTN and SESAR activities.
- Call opportunities: Engage Calls and external Calls such as papers, abstracts and grants.
- PhD opportunities: Engage Call for PhDs and post-graduate theses and external PhD opportunities were listed on the website before being moved to the wiki.
- Jobs and internships: ATM-related jobs and internships were posted here until the wiki was active and the information was moved.
- Events: the events section of the website has been active, containing key information about ATM and research related events. Featured events include the SESAR Innovation Days (SIDs) and other conferences; Engage workshops and summer schools; SESAR Digital Academy webinars; other conferences and project workshops; competitions and awards; and other relevant events. This information has been updated, incorporating rescheduling due to Covid-19 as soon as the information has been made available.

From the launch of the website (20 January 2018) to D2.2 reporting (31 March 2022) there have been over 50600 page views, with an average of over 12000 page visits per year between 2018 and 2021. An exploratory research project website might typically expect around 1000 page views annually. The following figures present an overview of the complete website hits and more detailed statistics per year between 2018 and 2022, with the peak day highlighted. The website hits show over 13000 total users with an average of 3000 users per year.

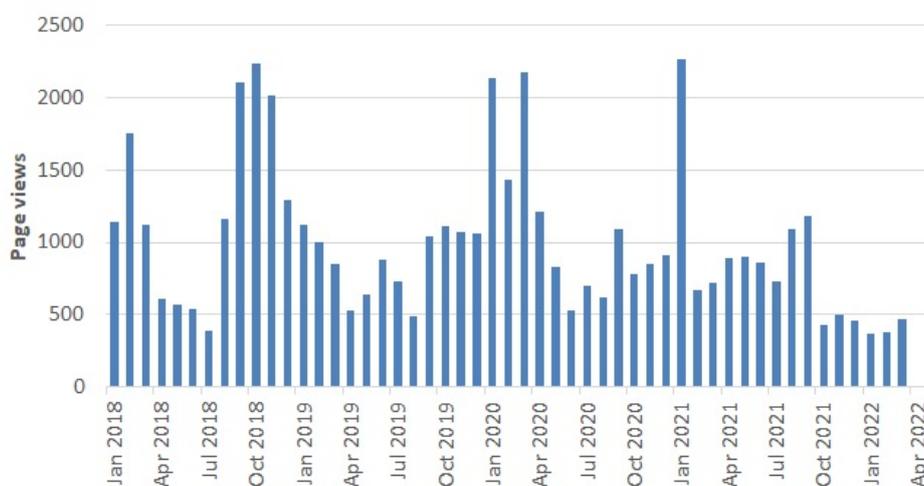


Figure 1: Engage website page views

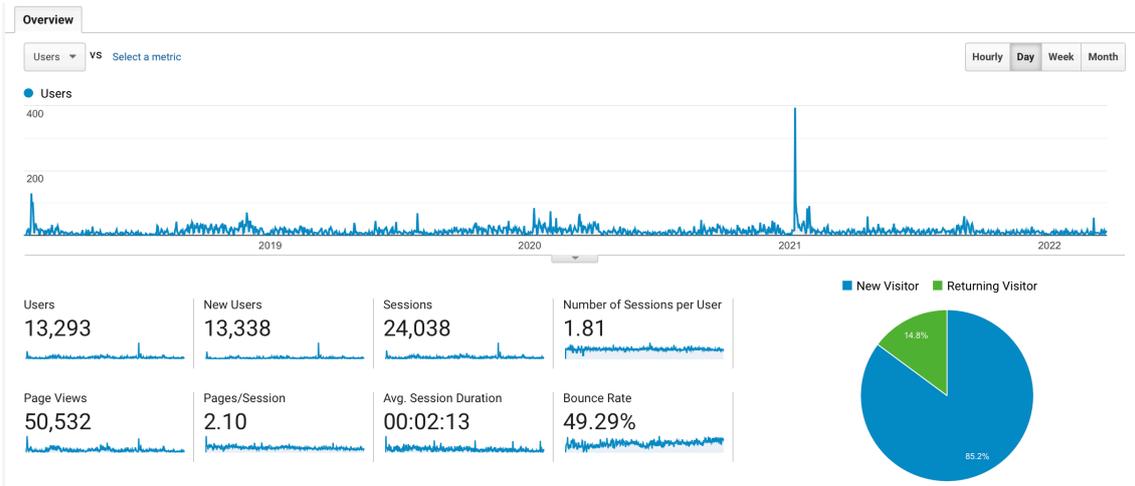


Figure 2: Engage website statistics January 2018 - March 2022

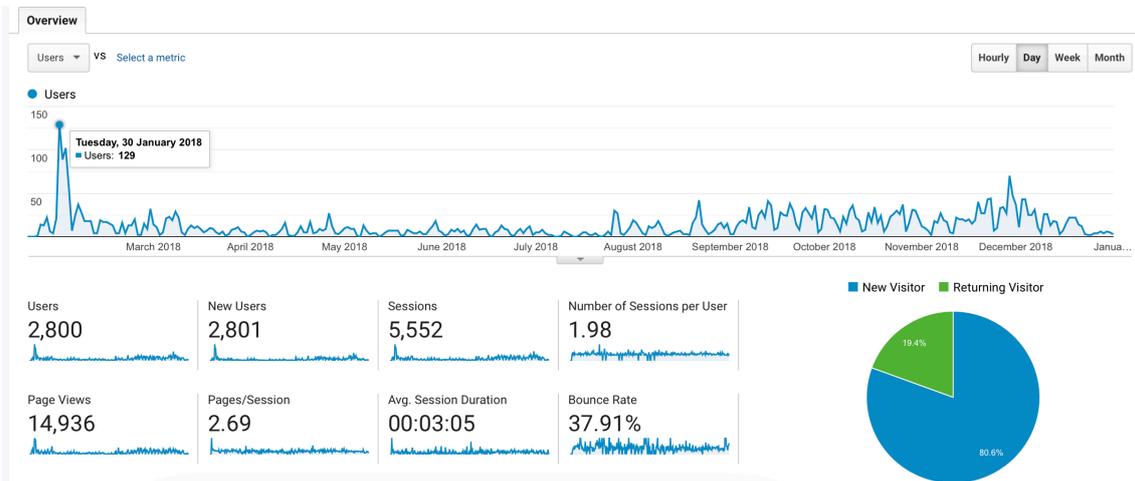


Figure 3: Engage website statistics full year 2018

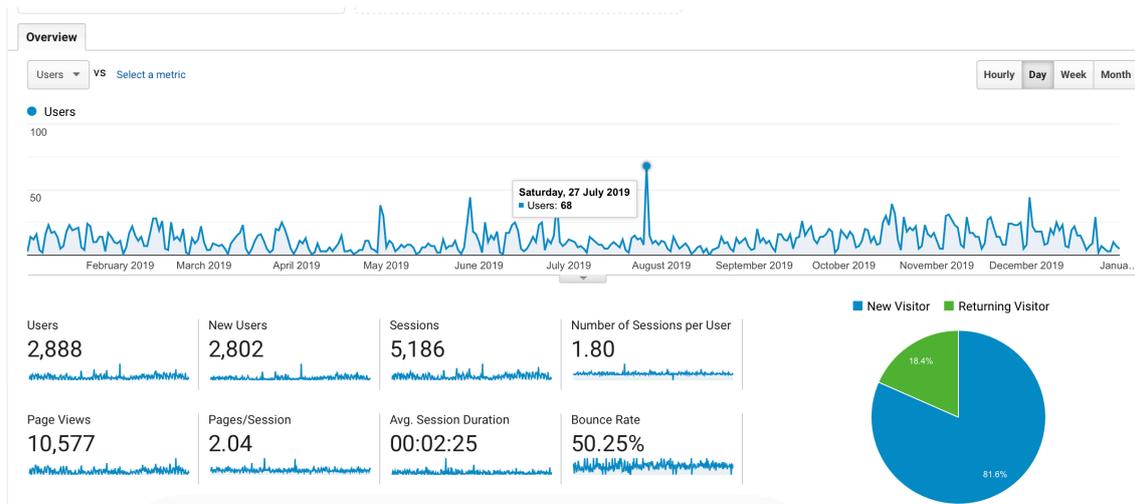


Figure 4: Engage website statistics full year 2019

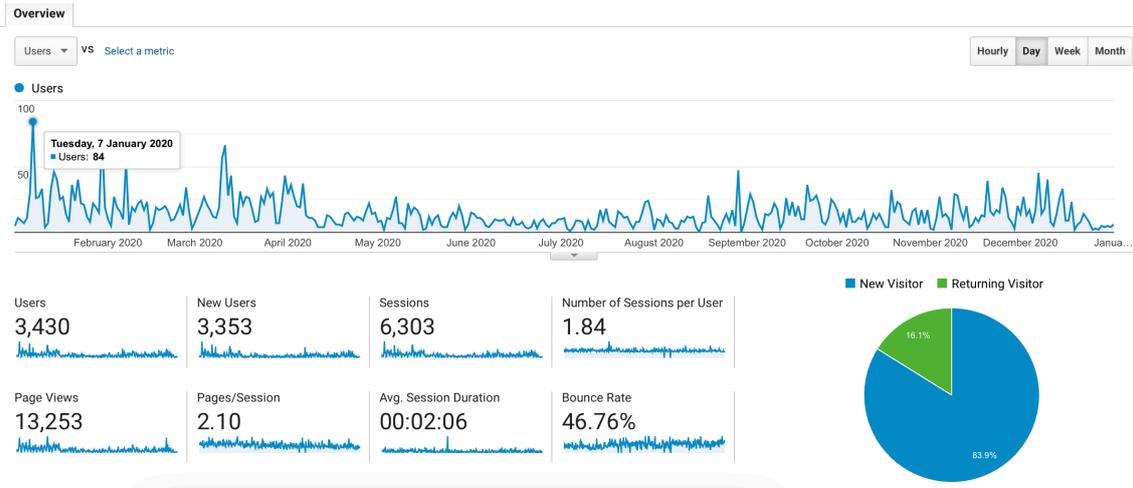


Figure 5: Engage website statistics full year 2020

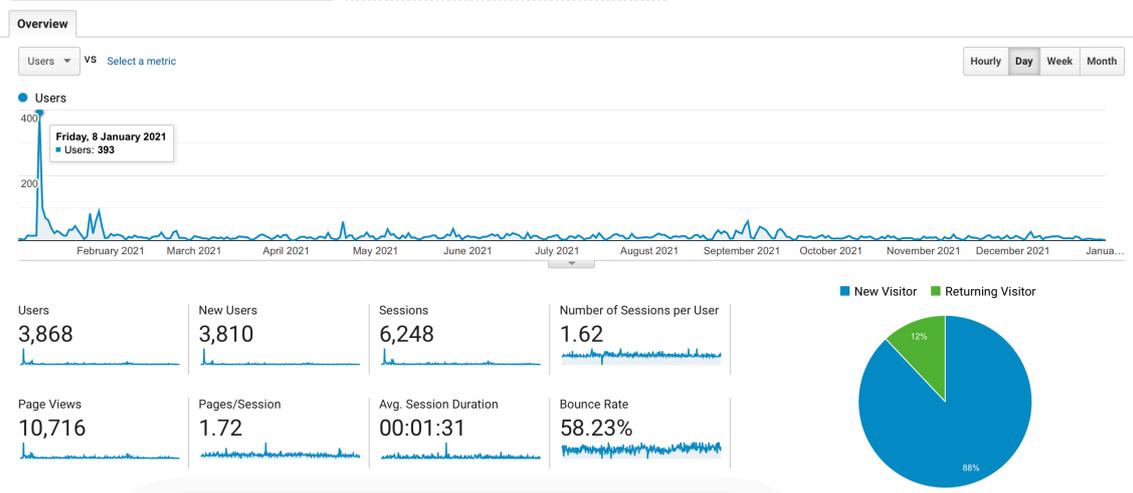


Figure 6: Engage website statistics full year 2021

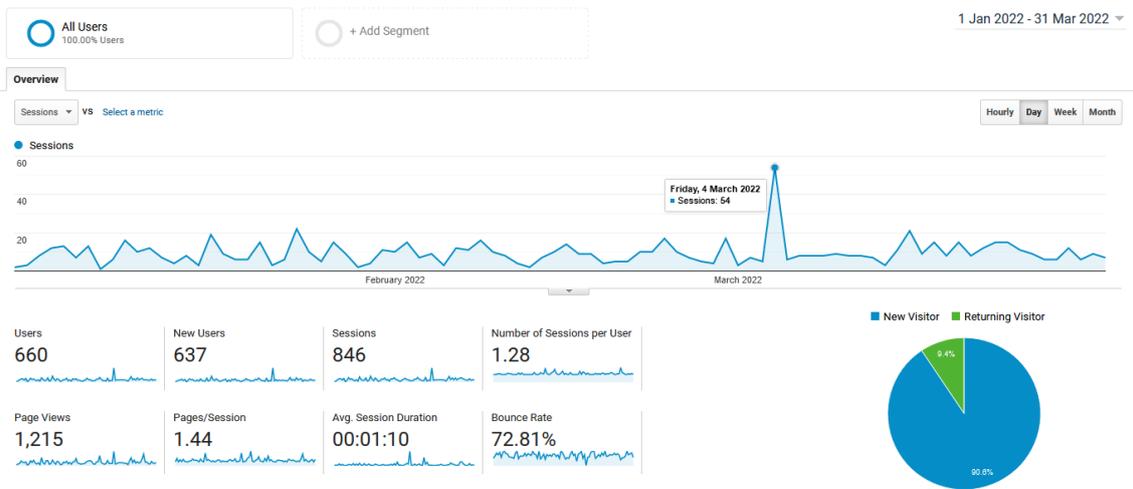


Figure 7: Engage website statistics Q1 2022

The following table shows the top 20 pages ranked in order of visits since the launch of the website. The most visited page ("/) is the homepage, and the top five is completed with the thematic challenges page, the events listing, about Engage and advertised jobs/internships. These statistics show how users have navigated through the website and the work put into updating all sections with news have been useful to the community, such as the Engage Calls (thematic-challenges, catalyst funding and PhDs/post-graduate theses), summaries and material relating to the Engage Calls, summer schools and employment/PhD opportunities.

Table 4: Engage website top 20 page visits

| Rank | Page | Page views | Unique page views |
|------|--------------------------------|------------|-------------------|
| 1 | / | 16425 | 13380 |
| 2 | /thematic-challenges/ | 5938 | 4483 |
| 3 | /events/ | 4256 | 3647 |
| 4 | /about/ | 2885 | 2292 |
| 5 | /jobs-and-internships/ | 2865 | 2577 |
| 6 | /participate/ | 2571 | 1987 |
| 7 | /knowledge-hub/ | 2044 | 1673 |
| 8 | /phd-call/ | 1809 | 1459 |
| 9 | /catalyst-call2/ | 1710 | 1383 |
| 10 | /catalyst-call1/ | 1422 | 1113 |
| 11 | /contacts/ | 1259 | 945 |
| 12 | /summer-school-2019/ | 1086 | 907 |
| 13 | /phd-opportunities/ | 923 | 858 |
| 14 | /summer-school-2020/ | 897 | 737 |
| 15 | /cf-summaries/ | 790 | 579 |
| 16 | /suggest-a-thematic-challenge/ | 491 | 358 |
| 17 | /call-opportunities/ | 442 | 421 |
| 18 | /catalyst-calls/ | 399 | 361 |
| 19 | /phd-abstracts/ | 329 | 302 |
| 20 | /summer-schools/ | 284 | 257 |

Table 5 shows the number of page views per month (2018-2021). In most cases, peak months each year were triggered by the publication of Engage Calls and events. For example, peak pages view in 2018, 2019 and 2020 occurred while the Call for PhDs and post-graduate theses, and 1st/2nd Calls for catalyst funding were open and being actively publicised on-line and via Twitter.

Table 5: Engage website page views per month

| Date | Page views | Engage Calls | Events |
|-----------|------------|--------------------------------------|--|
| Jan 2018 | 1142 | Call for thematic challenges | |
| Feb 2018 | 1755 | Call for thematic challenges | |
| Mar 2018 | 1126 | Call for thematic challenges | |
| Apr 2018 | 606 | | |
| May 2018 | 568 | | |
| Jun 2018 | 545 | | |
| Jul 2018 | 389 | | |
| Aug 2018 | 1164 | Call for PhDs & post-graduate theses | |
| Sep 2018 | 2105 | Call for PhDs & post-graduate theses | |
| Oct 2018 | 2230 | Call for PhDs & post-graduate theses | 1st TC4 workshop |
| Nov 2018 | 2011 | 1st Call for catalyst funding | 1st TC2 & 1st TC3 workshops |
| Dec 2018 | 1290 | 1st Call for catalyst funding | SESAR Innovation Days 2018 |
| Jan 2019 | 1124 | 1st Call for catalyst funding | |
| Feb 2019 | 1005 | 1st Call for catalyst funding | |
| Mar 2019 | 852 | | 1st TC1 workshop |
| Apr 2019 | 534 | | |
| May 2019 | 641 | | |
| Jun 2019 | 885 | | |
| Jul 2019 | 733 | | |
| Aug 2019 | 493 | | |
| Sep 2019 | 1046 | | 1st summer school |
| Oct 2019 | 1113 | | |
| Nov 2019 | 1076 | | 2nd TC3 & 2nd TC4 workshops |
| Dec 2019 | 1063 | | SESAR Innovation Days 2019; 2nd TC2 workshop |
| Jan 2020 | 2129 | 2nd Call for catalyst funding | |
| Feb 2020 | 1428 | 2nd Call for catalyst funding | |
| Mar 2020 | 2171 | 2nd Call for catalyst funding | |
| Apr 2020 | 1211 | 2nd Call for catalyst funding | |
| May 2020 | 829 | | |
| Jun 2020 | 525 | | |
| Jul 2020 | 704 | | |
| Aug 2020 | 618 | | |
| Sep 2020 | 1087 | | 2nd summer school |
| Oct 2020 | 779 | | |
| Nov 2020 | 854 | | 2nd TC1 workshop |
| Dec 2020 | 911 | | SESAR Innovation Days 2020 |
| Jan 2021* | 2267 | | 3rd TC2 & 3rd TC3 workshops |
| Feb 2021 | 673 | | |

| Date | Page views | Engage Calls | Events |
|----------|------------|--------------|---|
| Mar 2021 | 718 | | |
| Apr 2021 | 893 | | |
| May 2021 | 898 | | |
| Jun 2021 | 862 | | 3rd TC4 workshop |
| Jul 2021 | 734 | | |
| Aug 2021 | 1094 | | 3rd summer school |
| Sep 2021 | 1186 | | 3rd summer school; 4th TC2, 4th TC3 & 3rd TC1 workshops |
| Oct 2021 | 434 | | |
| Nov 2021 | 496 | | |
| Dec 2021 | 459 | | SESAR Innovation Days 2021 |

* High number of page views of the 'jobs and internships' page on 08JAN21.

2.3.2 Twitter



Figure 8: Engage Twitter account

The Engage Twitter account (twitter.com/EngageKTN) launched in May 2018 and has been active on a daily basis since then, sharing industry news, job/PhD announcements, funding opportunities, publications, events and other activities relevant to the ATM research community. Between May 2018 and February 2022, on average 35 Tweets (including an average of 13 original Tweets) plus retweets and replies have been sent per month (logged in Appendix I).

Engage has interacted with many Twitter users, including other projects, researchers, organisations, industry and European bodies. Continued support has been given to publicise the activities of the SESAR JU and SESAR projects.

A total of 800 followers was reached in March 2022. Figure 9 shows the growth rate in increments of 50 new followers.

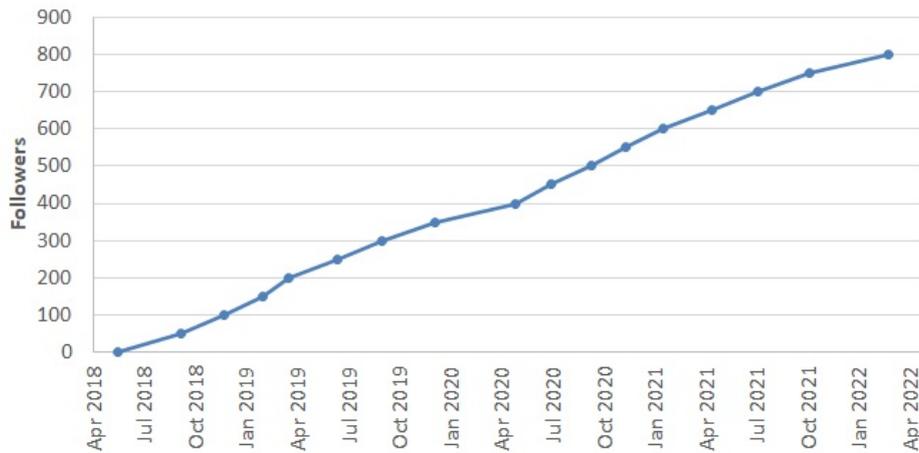


Figure 9: Engage Twitter account followers

Twitter ‘impressions’ are the number of times users saw Engage Tweets on Twitter. The following figures show the number of Engage Tweet impressions per month each year. To date, there have been an average of over 16k impressions each month.

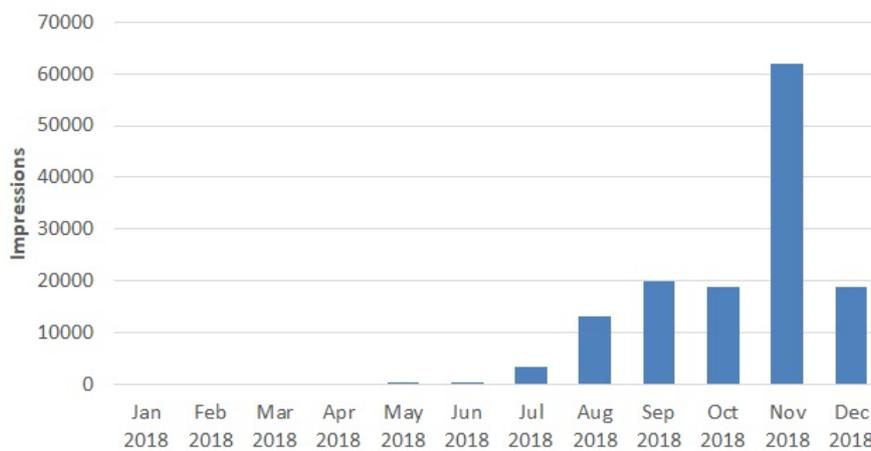


Figure 10: Engage Tweet impressions full year 2018

Note that the peak impressions in 2019 (Figure 11) relate to a small number of well-viewed Engage Tweets, such as a reminder on 07 January about the 2019 Safety Forum Call for Submissions (66k impressions) and a Tweet on 28 June publicising an article on fuel tankering (92k impressions).

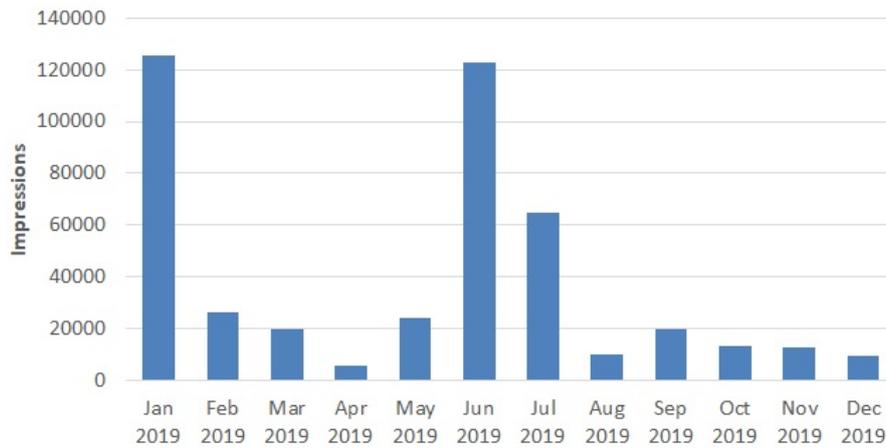


Figure 11: Engage Tweet impressions full year 2019

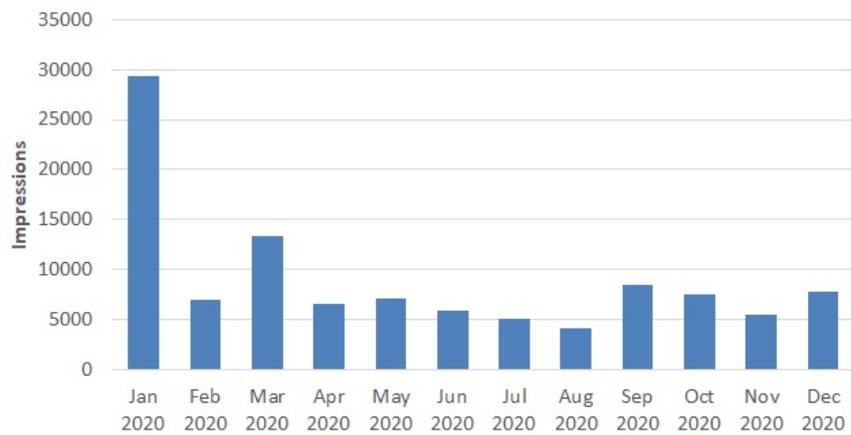


Figure 12: Engage Tweet impressions full year 2020

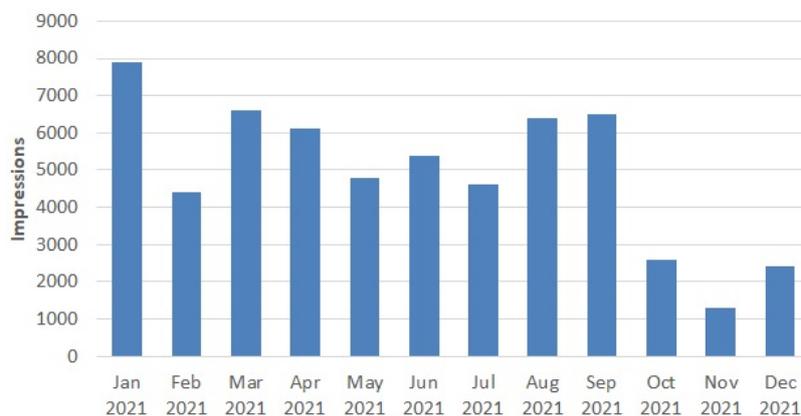


Figure 13: Engage Tweet impressions full year 2021

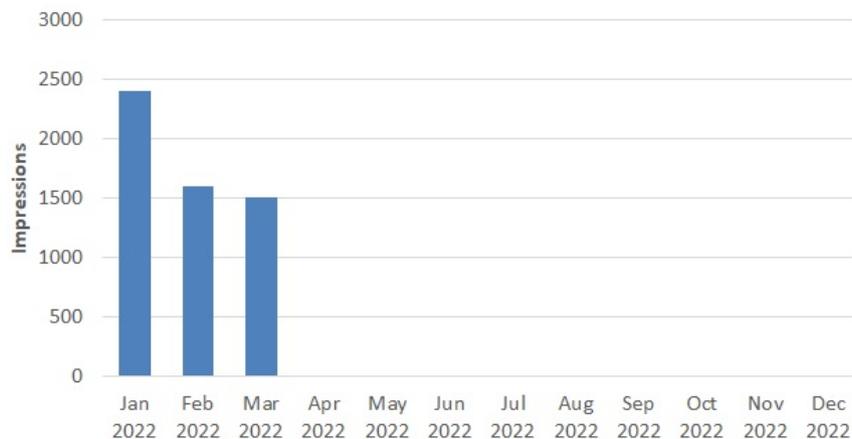


Figure 14: Engage Tweet impressions Q1 2022

A list summarising Tweets and retweets is available in Appendix I.

2.3.3 LinkedIn

A LinkedIn group was created in the first months of the project but proved to be less active than Twitter, so effort was instead focused on Twitter. Engage still has a presence on LinkedIn through the activity of the consortium members' company profiles (such as Innaxis' profile), SESAR profile and the personal LinkedIn accounts. These accounts already attract a wide audience, so it has been possible to disseminate Engage posts. The LinkedIn activities can be found under Appendix I.

2.3.4 Engage Wiki communications

In order to promote the use of the Engage wiki, a series of short videos about the wiki and its features are being created and shared through social media channels along with some short user tutorials. The first generic video was launched in February 2022, followed by a second one in April showcasing the European university programmes database. Further videos will be launched up to the closure of Engage in June 2022. The videos comprise:

- **A generic video about the wiki:** talking about its origins within the Engage project and describing its features and use, encouraging users to register and add information to the pages they can edit.
- One specific video per feature:
 - **Interactive research map of ATM:** this video explains how the information to create the map was gathered and how the tree overview was built, mentioning how natural language processing (NLP) was applied to create the tree, and showing the map visualisation and how the user can navigate through it.
 - **ATM concepts roadmap:** this video presents the conceptual design and implementation of the ATM concepts roadmap, how NLP and semantic similarity mapping was used to build the roadmap, and how the user can navigate through the visualisation.
 - **European university programmes:** this video talks about how this feature aims to be a one-stop resource for undergraduate programmes related to air transport

engineering and aviation management, and postgraduate programmes that perform ATM-related research. The idea behind this feature is to encourage students to search for information but also to encourage universities to add their programmes. The video is directed to both audiences.

- **Research repository:** this video explains how the materials were gathered and which specific Calls and documents/papers are available, it also shows the filters available and demonstrates how to use them.

These videos will continue to be posted on Engage and Innaxis' social media and will be made available in a public video channel on Vimeo.

2.4 Coordination with the SESAR Scientific Committee

Coordination with the SESAR Scientific Committee (SC) has been facilitated through members of the Engage consortium (who were also SC members) up to closure of the SC in December 2021^[2]. Planning and updates of Engage activities were presented and discussed at the regular SC meeting – typically four per year.

2.5 Outputs from third parties

Engage has supported many types of research outputs from PhD candidates and catalyst fund projects. These 'third parties' have been active from the second year of the KTN onwards – Table 6 summarises the types of outputs, with the full list (to August 2022) available in Appendix III.

Table 6: PhD and catalyst fund project outputs

| Type of output | PhD candidates | Catalyst fund projects |
|------------------|----------------|------------------------|
| Article | 2 | 1 |
| Book chapter | 2 | 2 |
| Brochure | - | 1 |
| Code | 2 | 1 |
| Conference paper | 28 | 12 |
| Demonstration | - | 1 |
| Dissemination | - | 14 |
| Journal article | 11 | 4 |
| Poster | 2 | 9 |
| Presentation | 47 | 54 |
| Report | 10 | 24 |
| Tool | - | 2 |

² The SESAR 3 JU Scientific Committee is expected to launch later in 2022.

| Type of output | PhD candidates | Catalyst fund projects |
|----------------|----------------|------------------------|
| Video* | - | 3 |
| White paper | - | 1 |
| Working paper | 2 | - |

* Pre-recorded videos of presentations for virtual events are included within 'Presentation'

A range of PhD and CF project outputs have been produced, including two SWIM webservices ('Tool').

Of the 101 presentations, the majority were given at the three Engage summer schools and 14 thematic challenge workshops, however other events include EGU General Assembly, CANSO Strategic Technology Workgroup, Amsterdam Drone Week, ICAO Global Symposium and project workshops.

There have been 40 conference papers: a third were presented at the SIDs; the combined total of papers presented at ICRAT and ATM R&D Seminar accounted for almost a third; and the final third or so were spread across all other events.

To date, 15 journal articles have been published by PhDs and CF projects, although further PhD articles are at various stages of the submission process. Table 7 summarises the publishing journals, with all articles available as open access (direct links are given in Appendix III).

Table 7: Journals with PhD and catalyst fund project articles

| Journals | Articles |
|---|----------|
| Aerospace | 2 |
| Applied Sciences | 1 |
| Array | 1 |
| Computers and Operations Research | 1 |
| EURO Journal on Transportation and Logistics | 1 |
| IEEE Access | 4 |
| IEEE Transactions on Aerospace and Electronic Systems | 1 |
| Journal of Air Transport Management | 1 |
| Transportation Research Part C: Emerging Technologies | 2 |
| Transportation Research Procedia | 1 |

3 Dissemination of SESAR ER results

The Engage ‘knowledge hub’, hosting ATM research and knowledge, was formally launched at the SESAR Innovation Days 2020 as the ‘EngageWiki’. The wiki, as described in D3.9 [8], provides a platform and consolidated repository with novel user functionality, but also hosts an interactive research map of ATM, which allows researchers to investigate, in various interactive modes, a full corpus of SESAR Exploratory Research and Industrial Research results in one place, thus delivering far more than a simple, passive dissemination platform. This thus meets the ambition of mapping ER and IR, with the planned “industrial research coordination map” included in the same tool, serving to “break down barriers between these research silos”. Furthermore, these efforts are brought together synergistically in the mapping and data-driven identification of future research opportunities, notably through the functionality of, and activities associated with, the Engage ATM concepts roadmap (another feature of the wiki).

In terms of direct (‘pure’) dissemination, the wiki and its functionalities have been promoted across the numerous Engage workshops in 2021, which have brought together a wide diversity of ER and IR researchers both through engagement in the workshops and through the 18 catalyst fund projects (as reported upon in D2.7 [7]), and also at the Engage summer schools (as reported in D5.14 [9]), thus also reaching other invited PhD candidates and industry speakers and panellists participating in these events, in addition to direct communications to the Engage PhDs and their supervisory teams.

3.1 Interactive mapping and repository from the Engage KTN

In support of the mapping of ATM research concepts, and with a goal of building easy to use yet powerful interactive maps embracing both ER and IR activities, the Engage research mapping task focused on a bottom-up discovery of themes and clusters of research. Key information was extracted from previous SESAR projects, and this was used to create research themes (clusters). The process has previously been discussed in detail by D3.9 [8].

Engage built a customised web-based application to visualise and explore the clusters and all the corresponding projects. Figure 15 shows the high-level interactive map, with the 14 clusters. Each node is a project.

Interactive research map of ATM

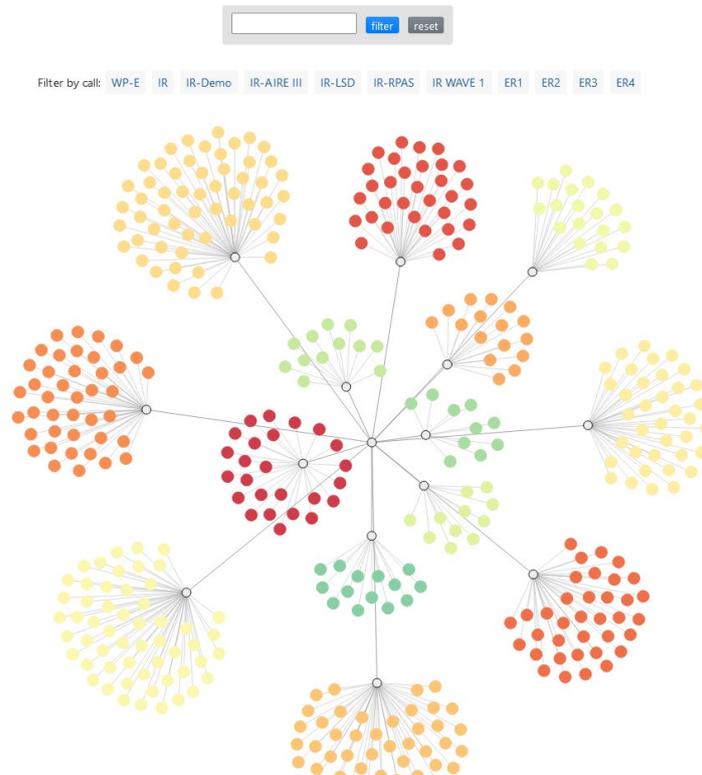


Figure 15: Research mapping – the 14 clusters

The search bar allows projects with relevant metadata, including project titles, keyword, partners, etc., to be quickly identified (see Figure 16).

Interactive research map of ATM



Figure 16: Search by partner (e.g. “TU Delft”)

The projects can also be filtered by different SESAR Calls. Figure 17 shows the example of all available ER3 projects, as well as the cluster to which they belong.

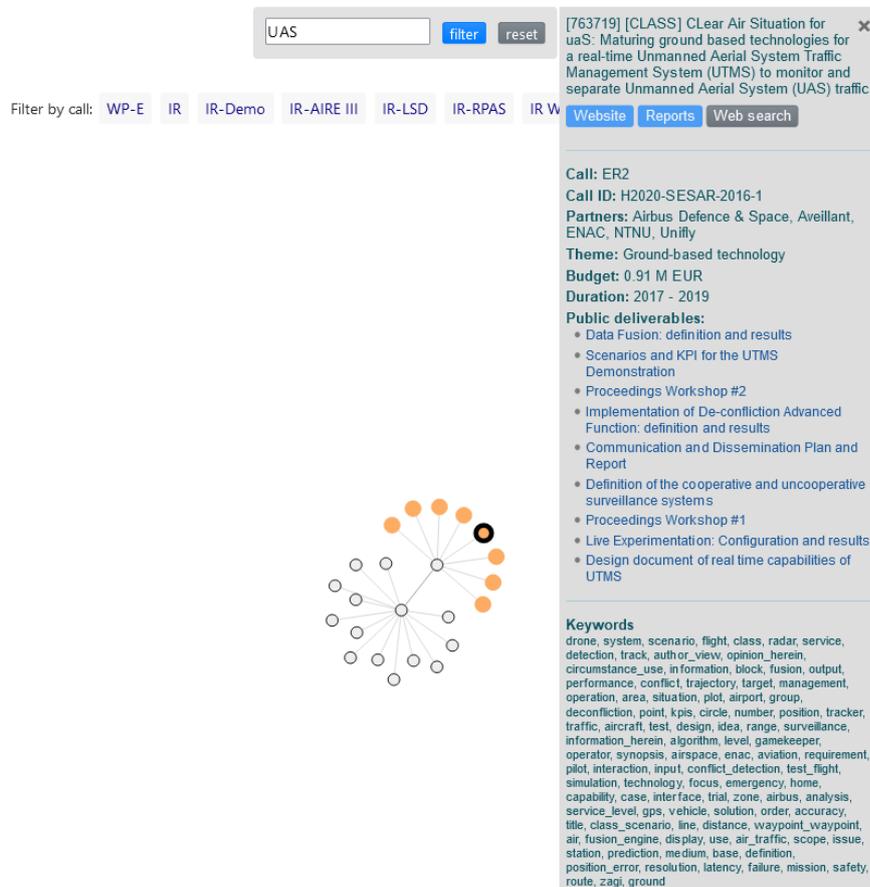
Interactive research map of ATM



Figure 17: Filter by call (e.g. “ER3”)

When a specific project is selected, detailed information is then shown. Figure 18 shows an example project. The displayed information includes: Call information, partners, research theme, budget, duration, public deliverables (if available) and keywords. The public deliverables are directly linked to public documents in EngageWiki’s research repository or documents in the European Commission’s CORDIS portal.

Interactive research map of ATM



UAS

Filter by call: [WP-E](#) [IR](#) [IR-Demo](#) [IR-AIRE III](#) [IR-LSD](#) [IR-RPAS](#) [IR W](#)

[Website](#) [Reports](#) [Web search](#)

[763719] [CLASS] Clear Air Situation for uas: Maturing ground based technologies for a real-time Unmanned Aerial System Traffic Management System (UTMS) to monitor and separate Unmanned Aerial System (UAS) traffic

Call: ER2
Call ID: H2020-SESAR-2016-1
Partners: Airbus Defence & Space, Aveillant, ENAC, NTNU, Unifly
Theme: Ground-based technology
Budget: 0.91 M EUR
Duration: 2017 - 2019

Public deliverables:

- Data Fusion: definition and results
- Scenarios and KPI for the UTMS Demonstration
- Proceedings Workshop #2
- Implementation of De-confliction Advanced Function: definition and results
- Communication and Dissemination Plan and Report
- Definition of the cooperative and uncooperative surveillance systems
- Proceedings Workshop #1
- Live Experimentation: Configuration and results
- Design document of real time capabilities of UTMS

Keywords
 drone, system, scenario, flight, class, radar, service, detection, track, author_view, opinion_herein, circumstance_use, information, block, fusion, output, performance, conflict, trajectory, target, management, operation, area, situation, plot, airport, group, deconfliction, point, kpis, circle, number, position, tracker, traffic, aircraft, test, design, idea, range, surveillance, information_herein, algorithm, level, gamekeeper, operator, synopsis, airspace, enac, aviation, requirement, pilot, interaction, input, conflict_detection, test_flight, simulation, technology, focus, emergency, home, capability, case, interface, trial, zone, airbus, analysis, service_level, gps, vehicle, solution, order, accuracy, title, class_scenario, line, distance, waypoint_waypoint, air_fusion_engine, display, use, air_traffic, scope, issue, station, prediction, medium, base, definition, position_error, resolution, latency, failure, mission, safety, route, zagi, ground

Figure 18: Detailed project information (e.g. “CLASS”)

Turning to the research repository in the EngageWiki, deliverable and conference paper metadata (prepared by Engage) are used by the research repository’s search and filter functionality. The project identifier field, containing either the SESAR 1 WBS number or SESAR 2020 Grant Agreement number, is used to link deliverable and conference paper metadata with project metadata. As of the end of 2021, the research repository currently has **362 projects**, with a total of **1440 deliverables/reports (including CORDIS links)**, and **653 conference papers**.

The final research repository database was visualised with dynamic filtering functionalities as the main objective. The different projects and papers in the database are displayed as individual ‘capsules’ containing relevant information, preferable to the more traditional table format when using search filters.

Research repository: Projects

[« Search in Papers](#)

WBS

Project

Acronym

Years



Programme

 SESAR 1
 SESAR 2020

Call

01.01

CO2 And Noise Approach Reduction for International Aviation Sustainability

Acronym: CANARIAS | Call: IR-AIRE III | Years: 2012-2014 | Documents: 1

01.03

Arrival Modernization for Better Efficiency in Riga

Acronym: AMBER | Call: IR-AIRE III | Years: 2012-2014 | Documents: 1

02.01

Free Route Airspace Maastricht and Karlsruhe

Acronym: FRAMaK | Call: IR-Demo | Years: 2012-2014 | Documents: 1

02.02

FAIR STREAM

Acronym: FAIR STREAM | Call: IR-Demo | Years: 2012-2014 | Documents: 1

Figure 19: Research repository (Projects) main page

By default, when a user accesses the research repository, the projects database is accessed. The layout and functionality are analogous in both the projects and papers areas of the repository – to perform a search for papers there is a button at the top-left (as shown in Figure 19) to change the view to the papers database.

The main filter panel is in the left column. This panel allows users to perform a specific search of projects/papers through the use of different fields. There are three main types of filters: the first, whereby the user directly selects the desired options from a list of checkbox options; the second, whereby with the help of free text the user can search then select the desired option; the third, whereby a slider filter enables a temporal range specification. These can be seen in Figure 19 and Figure 20. Note that all filters can be used in conjunction with each other as shown in Figure 21 and Figure 22.

Research repository: Papers

<< Search in Projects

Conference

- SESAR Innovation Days
- USA/Europe ATM R&D Seminar

Year

2011 2020

2011 2013 2015 2016 2018 2020

Project

Select a filter value

Theme

Select a filter value

PaperID

Select a filter value

2011-04

Trajectory Uncertainty and the Impact on Sector Complexity and Workload

Conference: SESAR Innovation Days | Year: 2011

Theme: Trajectory Management

2011-06

Optimal Air Traffic Delays

Conference: SESAR Innovation Days | Year: 2011

Theme: Economics

2011-10

Flow management without en route capacity limitations by pre-tactical trajectory compatibility determination

Conference: SESAR Innovation Days | Year: 2011

Theme: Flow Management

Figure 20: Research repository (Papers) main page

Years

2009 2017 2021

2009 2012 2015 2018 2021

Programme

- SESAR 1
- SESAR 2020

Call

× ER3 × IR Wave 2

Figure 21: Example of multiple filters applied (Projects)

Conference

SESAR Innovation Days

USA/Europe ATM R&D Seminar

Year

2011 2017 2020

2011 2013 2016 2018 2020

Project

Select a filter value

Theme

× Air Ground Automation Integrated Concepts

× Arrival and Departure Management

PaperID

Select a filter value

Figure 22: Example of multiple filters applied (Papers)

The different projects/papers present in the database are shown in the right column in the form of capsules. For a manual search, the user is able to scroll down the page. When a filter is applied, the column is automatically updated to show only projects/papers matching the selected conditions.

In the case of projects, by clicking on a project capsule the user will be redirected to a project-specific page in the wiki where they will find information related to the specific project (WBS, acronym, SESAR programme, Call, start year and end year) as well as a list of all available project documents (see Figure 23). These include documents available exclusively in the EngageWiki database, as well as some available in the CORDIS database. Clicking on any of these documents will redirect the user to the relevant page, where the document will be downloaded automatically. In the case of papers, there is no dedicated wiki page. If the user clicks on the title of the paper in the capsule, instead of being redirected to a specific page, the user is redirected directly to the download link.

| Novel tools to evaluate ATM systems coupling under future deployment scenarios | |
|--|---|
| WBS Number | 783206 |
| Project Acronym | Domino |
| SESAR Programme | SESAR 2020 |
| Call | ER3 |
| Project Start | 2018 |
| Project Close | 2019 |
| Documents | <ul style="list-style-type: none"> • Adaptive case studies description • Architecture definition • Data management and sources • Database structure • Final tool and model description and case studies results • Initial model design • Investigative case studies description • Investigative case studies results • Metrics and analysis approach • Stakeholders consultation on system and investigative case studies • Workshop results summary |

Figure 23: Example of project-dedicated page

4 Best practices and lessons learned

During the four years of the KTN's duration, there has been a significant change in communication procedures and channels related to the travel limitations in place since March 2020 and still active. An agile shift towards stronger on-line presence and organisation of on-line events has been required. The team has learnt during this process based on the impact of the different actions performed. Particularly:

1. **On-line events:** Engage experienced the Covid-19 era which brought new situations and a new way to deal with events in the virtual environment. People have become used to meeting tools that were not that common before the pandemic. In the early months of the pandemic when much of the world was in lockdown the only option was to host events on-line. However as the pandemic progressed, some countries became more open while others were more restrictive with Covid-19 measures so it was difficult to plan in-person events, as the uncertainty level was high. The following best practices have been learnt and applied by the team:
 - **Audience attendance:** on-line events allowed a higher attendance rate, since travel was not required, and it became easier for anyone to join an on-line event. However, the challenge has been associated with creating awareness among the relevant audience and getting their attention particularly since the number of on-line events has significantly grown in recent months. This fact requires a **broad network of contacts to be built** and a well-populated social media presence with **dedicated communication campaigns per event**. In order to improve awareness, it is also recommended to **co-host meetings**, when possible, to broaden the network of contacts and facilitate cross-fertilisation among synergic projects.
 - **Audience engagement:** it is important to first decide the event objective: communicating project results or capture feedback from the audience in order to adapt the format and duration of the event and improve audience engagement. In the first case - dissemination events - shorter events should be organised and **participation from the audience should be called through short surveys, Q&A sessions, discussion slots and quizzes**. In the second case, where input from the audience would be needed, it is important to carefully **select the most suitable platform**, finding the balance among the functionalities of the platform and the intuitiveness and user experience. In both cases, the role of the **moderator** is crucial to facilitate the event dynamics and stimulate the audience. Several tools offer metrics about the level of attention from the audience.
 - **Event duration:** the selection of the duration is a very relevant factor for on-line events and it is a limiting factor. While a one-day meeting was considered a minimum duration for physical events to make the trip worthwhile, with on-line events it can be difficult for an audience to commit to a full day and it is more likely that your audience will partly join. The flexibility of the on-line events makes it more difficult to plan in advance. It is suggested to **request attendance confirmation for the different sessions if this is an important fact for your meeting**. Shorter events have proven to be more successful. And while it can be difficult to involve people to participate in activities proposed by the workshop organisers, a mitigation action can be to send post-event surveys to collect input.

- **Pre-event communication:** in order to take maximum benefit from the event, it is especially important to organise a suitable level of communication prior to the event. Due to the limited duration of an on-line event, a clear pre-event communication campaign is considered a best practice in order to **establish the meeting objectives** (particularly if input from the audience is needed) and to **promote the event visibility** and differentiating it from others.
- **Platforms:** it has been learnt from experience that using on-line conferencing **platforms that the audience is familiar with** is highly recommended for a smooth conference organisation. In addition, arranging **preparatory sessions with speakers** are essential to anticipate potential problems as much as possible. Additionally, **enabling a 15-30 minute slot before an on-line event is necessary to solve potential IT issues** beforehand. The most popular platforms, offering intuitive interfaces and simple user experience have been preferred, even if more limited in features, in order to facilitate participation. Additionally, it is recommended to use the **minimum number of different platforms** for an event or **look for integrated solutions** for videoconferencing, polls, and Q&As. While specific platforms might be better for each of the applications, it is difficult to maintain audience engagement if using multiple platforms simultaneously. For the case of collaborative meetings/workshops, this fact is especially important due to the risk of losing part of the audience who cannot easily interact with the chosen platform.
- **Recording:** If allowed by GDPR, and provided the necessary permissions are in place (to be prepared beforehand), it is **recommended to record events** as it is an inexpensive way to broaden the scope of a meeting and maximise the audience. It is also recommended to publicise the recordings after the event to support the discussion with the audience.

2. On-line communication:

- **Newsletters:** a very strong communication media campaign that has pushed the Engage project dissemination is the newsletter. Engage has been featured in both the Innaxis and the SESAR newsletters, especially the latter. Being involved in SESAR communication activities has greatly supported Engage and has driven visits to the Engage website and wiki. Finding synergies among relevant groups of expertise is good practice to help maximise the impact of campaigns.
- **Twitter:** in addition to the communication channels, the communication material also needs to be adapted. Longer technical material can have less impact than shorter and more visual content. As an example, towards the beginning of the project, the decision was made to move away from writing monthly blogposts to instead maintain an active Twitter account. Twitter has been used to promote use of the website and wiki, for example by publicising its features through a series of two-minute videos with a short but clear explanation of what users can find in the EngageWiki and how to make the best use of it.
- **LinkedIn:** At the start of the KTN it was also initially decided to make an Engage LinkedIn group in order to share all Engage news. Many people were invited to the group but not everyone accepted the invitation and Engage news was being followed by a limited number of people outside the consortium. Taking into account Innaxis' LinkedIn profile numbers, and the consortium members personal profiles numbers, the LinkedIn activity was moved from an Engage group to be shared through the Innaxis account and the personal profiles, which proved more active than groups.

5 References

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6 Acronyms

| | |
|-------|--|
| ASDA | Association for the Scientific Development of ATM in Europe |
| ATM | Air Traffic Management |
| CF | Catalyst fund project |
| CF1 | First Call for catalyst funding |
| CF2 | Second Call for catalyst funding |
| EASA | Short name of Engage consortium: European Aviation Safety Agency |
| ECTL | Short name of Engage consortium: EUROCONTROL |
| ER | Exploratory research |
| FREQ | Short name of Engage consortium: Frequentis |
| FTTE | Short name of Engage consortium: University of Belgrade – Faculty of Transport and Traffic Engineering |
| GDPR | General Data Protection Regulation |
| INX | Short name of Engage consortium: Innaxis Research Institute |
| IR | Industrial research |
| KTN | Knowledge Transfer Network |
| NLP | Natural language processing |
| SC | SESAR Scientific Committee |
| SIDs | SESAR Innovation Days |
| SJU | SESAR Joint Undertaking |
| TC | Thematic challenge |
| TC1 | Thematic challenge 1: Vulnerabilities and global security of the CNS/ATM system |
| TC2 | Thematic challenge 2: Data-driven trajectory prediction |
| TC3 | Thematic challenge 3: Efficient provision and use of meteorological information in ATM |
| TC4 | Thematic challenge 4: Novel and more effective allocation markets in ATM |
| TUD | Short name of Engage consortium: Delft University of Technology |
| UNITS | Short name of Engage consortium: University of Trieste |
| UoW | Short name of Engage coordinator: University of Westminster |



- WBS Work breakdown structure
- YSA SESAR Young Scientist Award

7 Appendix I

7.1 List of Engage mail-outs, newsletters, posts

In some instances, 'reach' is unavailable or has been estimated in the following table.

Table 8: List of Engage mail-outs, newsletters, posts

| # | Date | Who | Action | Media | Reach | Summary |
|----|------------|---------|--|-------------------------------|------------|---|
| 1 | 18JAN18 | SJU | Engage news to ER project leaders | mail-out (SJU) | 9 projects | Engage launch |
| 2 | 18JAN18 | SJU | Engage news SESAR Scientific Committee & observers | mail-out (SJU) | 12 | Engage launch |
| 3 | 26JAN18 | UoW | Inform industry partners, ASDA & NEXTOR II of website launch/thematic challenges | mail-out | 78 | Engage website launch/thematic challenges |
| 4 | 29-31JAN18 | UoW/INX | Inform wider community of website launch/thematic challenges | mail-out | 7856 | Engage website launch/thematic challenges |
| 5 | JAN18 | INX | Inform wider community of website launch/thematic challenges | LinkedIn (INX) | 700+ | Engage website launch/thematic challenges |
| 6 | 30JAN18 | ASDA | Inform ASDA membership of website launch/thematic challenges | mail-out (ASDA) | 50 | Engage website launch/thematic challenges |
| 7 | 30JAN18 | SJU | Inform wider community of website launch/thematic challenges | LinkedIn (SJU) | N/A | Engage thematic challenges |
| 8 | 30JAN18 | SJU | Inform wider community of website launch/thematic challenges | Twitter (SJU) | N/A | Engage thematic challenges |
| 9 | 28FEB18 | SJU | Engage in the SESAR newsletter | SESAR newsletter (e-news #80) | N/A | SESAR project of the month |
| 10 | 14MAR18 | UKRO | Inform UK researchers of Engage | news item (UKRO) | N/A | Engage launch |

| # | Date | Who | Action | Media | Reach | Summary |
|----|---------------|---|--|--|-------|---|
| 11 | 26APR18 | SJU | Engage in the SESAR newsletter | SESAR newsletter (e-news #82) | N/A | Engage PhD Call teaser |
| 12 | 02MAY18 | UoW | Inform wider community of Engage | news | N/A | Engage launch |
| 13 | 26JUL18 | SJU | Engage in the SESAR newsletter | SESAR newsletter (July 2018 [e-news #85, though not stated]) | N/A | Engage thematic challenge workshops Engage PhD Call teaser |
| 14 | 09-22AUG18 | UoW | Inform industry partners, subscribers, ASDA & NEXTOR II of PhD Call launch | mail-out | 2180 | Engage PhD Call |
| 15 | 21AUG18 | INX | Inform wider community of PhD Call launch | LinkedIn (INX) | 800+ | Engage PhD Call |
| 16 | 22AUG18 | INX/SJU | Inform wider community of PhD Call launch | LinkedIn (SESAR Group) | 5978 | Engage PhD Call |
| 17 | 22AUG18 | FREQ | Inform wider community of PhD Call launch | LinkedIn (FREQ) | 5605 | Engage PhD Call |
| 18 | 22AUG18 | FREQ | Inform wider community of PhD Call launch | Facebook (FREQ) | 1673 | Engage PhD Call |
| 19 | 07SEP18 | ECTL | Inform wider community of PhD Call & thematic challenges | mail-out | 195 | Engage PhD Call Engage thematic challenge |
| 20 | 11SEP18 | ASDA | Inform ASDA membership of PhD Call & thematic challenges | mail-out (ASDA) | 50 | Engage PhD Call Engage thematic challenge |
| 21 | 13SEP18 | SJU | Inform National Contact Points of PhD Call & thematic challenges | mail-out (SJU) | 43 | Engage PhD Call Engage thematic challenge |
| 22 | SEP18 / OCT18 | Workshop organisers (Engage consortium members) | Inform target audience(s) of TC workshop(s) | mail-outs | N/A | Engage thematic challenge workshops |

| # | Date | Who | Action | Media | Reach | Summary |
|----|------------|-----------|---|-------------------------------------|-------|--|
| 23 | 28SEP18 | SJU | Engage in the SESAR newsletter | SESAR newsletter (September 2018) | N/A | Engage thematic challenge workshops registration open Engage PhD Call |
| 24 | 02OCT18 | ECTL | internal update on challenges and request for participation in WSS | mail-out | 180 | Engage thematic challenge workshops registration open |
| 25 | 26OCT18 | SJU | Engage in the SESAR newsletter | SESAR newsletter (October 2018) | N/A | Engage 1st catalyst Call opening soon |
| 26 | 31OCT18 | ASDA | Inform ASDA membership of 1st catalyst Call | mail-out (ASDA) | 50 | Engage 1st catalyst Call opening soon |
| 27 | 09NOV18 | EC | SIDs in the events section of the EC newsletter | Mobility and Transport Newsletter | N/A | SIDs |
| 28 | 22-30NOV18 | UoW/INX | Inform industry partners, subscribers, etc. of 1st catalyst Call launch | mail-out | 4875 | Engage 1st catalyst Call |
| 29 | 29NOV18 | SJU | Engage in the SESAR newsletter | SESAR newsletter (November 2018) | N/A | Engage 1st catalyst Call |
| 30 | 30NOV18 | ASDA | Inform ASDA membership of 1st catalyst Call | mail-out (ASDA) | 50 | Engage 1st catalyst Call |
| 31 | NOV18 | G.A.R.S. | Inform G.A.R.S. membership of 1st catalyst Call | G.A.R.S. newsletter | 350 | Engage 1st catalyst Call |
| 32 | 31JAN19 | ASDA | Remind ASDA membership of 1st catalyst Call | mail-out (ASDA) | 50 | Engage 1st catalyst Call |
| 33 | JAN19 | ETNA 2020 | Engage in the ETNA 2020 Newsletter | ETNA 2020 Newsletter (January 2019) | N/A | Engage 1st catalyst Call |
| 34 | 27FEB19 | FREQ | Engage in the Frequentis research bulletin newsletter | FREQ newsletter | N/A | Engage activity overview |

| # | Date | Who | Action | Media | Reach | Summary |
|----|---------|---------------------------------------|---|-----------------------------------|-------------|--|
| 35 | 22FEB19 | INX | Inform wider community of thematic challenge 1 workshop | mail-out | 2500+ | Engage thematic challenge workshop registration open |
| 36 | 27FEB19 | SJU | Engage in the SESAR newsletter | SESAR newsletter (February 2019) | N/A | Engage thematic challenge workshop registration open |
| 37 | 11MAR19 | INX | Inform wider community of thematic challenge 1 workshop | mail-out | 2500+ | Engage thematic challenge workshop agenda available |
| 38 | 30APR19 | INX | Engage in the INX newsletter (“The Innaxis Post”) | mail-out | 2500+ | Engage thematic challenge workshop documents available PhD and catalyst funding |
| 39 | 30APR19 | SJU | Engage in the SESAR newsletter | SESAR newsletter (April 2019) | N/A | Engage thematic challenge workshop documents available Tadorea and UPM PhD position |
| 40 | 28MAY19 | FTTE | Inform wider community of Belgrade summer school | LinkedIn (FTTE) | 774 (views) | Engage 1st summer school |
| 41 | 29MAY19 | SJU | Engage in the SESAR newsletter | SESAR newsletter (May 2019) | N/A | Engage 1st summer school |
| 42 | JUN19 | FTTE/UoW | Survey of European undergraduate programmes in the field of air transport | mail-out | 50 | Engage support for a future ATM skilled workforce |
| 43 | JUN19 | G.A.R.S. | Inform G.A.R.S. membership of 1st summer school | G.A.R.S. newsletter | 350 | Engage 1st summer school |
| 44 | JUL19 | Workshop organisers (ECTL/UoW /UNITS) | Inform target audience(s) of TC workshop(s) | mail-outs | N/A | Engage thematic challenge workshops (x3) |
| 45 | 30SEP19 | SJU | Engage in the SESAR newsletter | SESAR newsletter (September 2019) | N/A | Engage thematic challenge workshops (x3) |

| # | Date | Who | Action | Media | Reach | Summary |
|----|------------|-----|--|----------------------------------|-------|--|
| 46 | 08OCT19 | UoW | Post to research community about 1st summer school | LinkedIn (UoW) | 697 | Engage 1st summer school |
| 47 | 08OCT19 | UoW | Post to research community about TC workshops | LinkedIn (UoW) | 697 | Engage thematic challenge workshops (x3) |
| 48 | 24OCT19 | SJU | Engage in the SESAR newsletter | SESAR newsletter (October 2019) | N/A | Engage thematic challenge workshops (x3) |
| 49 | 06NOV19 | INX | Engage in the INX newsletter ("The Innaxis Post - AUTUMN 2019") | mail-out | 2500+ | Engage thematic challenge workshops (x3) 1st summer school 2nd catalyst Call opening soon |
| 50 | 27NOV19 | INX | Engage in the INX SIDs newsletter ("The Innaxis Post - SIDs 2019 & Digital Sky Challenge") | mail-out | 2500+ | Engage thematic challenge workshop Engage presentation at SIDs |
| 51 | 29NOV19 | SJU | Engage in the SESAR newsletter | SESAR newsletter (November 2019) | N/A | Engage 2nd catalyst Call opening soon |
| 52 | NOV19 | UoW | Post to research community about TC workshop | LinkedIn (UoW) | 230 | 2nd series of Engage thematic challenge workshops |
| 53 | 02DEC19 | UoW | Post to research community about TC2 workshop | LinkedIn (UoW) | 1700 | Engage thematic challenge workshop |
| 54 | 10DEC19 | SJU | Engage news item on the SJU website (as no SESAR newsletter in DEC19) | SESAR news item | N/A | Engage look ahead to 2020 activities (thematic challenge workshop, summer school, 2nd catalyst Call) |
| 55 | 23-24DEC19 | UoW | Publication of updated versions of Engage thematic challenge documents | mail-out | 130 | Engage thematic challenge documents (x4) |
| 56 | 07JAN20 | UoW | News aimed at thematic challenge 3 community | mail-out | 25 | Halaby Graduate Student Fellowship |

| # | Date | Who | Action | Media | Reach | Summary |
|----|------------|------|---|----------------------------------|-------|--|
| 57 | 07JAN20 | ECTL | Inform ART membership of CF2 Call launch | mail-out | 200 | Engage 2nd catalyst Call |
| 58 | 11JAN20 | UoW | Post to reach community about CF2 Call | LinkedIn (UoW) | 510 | Engage 2nd catalyst Call |
| 59 | 16-17JAN20 | UoW | Inform industry partners, subscribers, existing CF1 projects, etc. of CF2 Call launch | mail-out | 2775 | Engage 2nd catalyst Call |
| 60 | JAN20 | ECTL | Post to reach community about Engage | LinkedIn (ECTL) | 65240 | ECTL involvement in Engage activities |
| 61 | 30JAN20 | SJU | Engage in the SESAR newsletter | SESAR newsletter (January 2020) | N/A | Engage thematic challenge workshop 2nd summer school 2nd catalyst Call Job page |
| 62 | 27FEB20 | SJU | Engage in the SESAR newsletter | SESAR newsletter (February 2020) | N/A | Engage thematic challenge workshop listed in upcoming events |
| 63 | 10-11MAR20 | UoW | Inform industry partners, subscribers, etc. of CF2 Call launch | mail-out | 890 | Engage 2nd catalyst Call |
| 64 | 13MAR20 | UoW | Post to research community about technical workshop on building passenger itineraries | LinkedIn (UoW) | 1170 | Engage technical workshop |
| 65 | 31MAR20 | SJU | Engage in the SESAR newsletter | SESAR newsletter (March 2020) | N/A | Engage thematic challenge workshop listed in upcoming events |
| 66 | 29JUL20 | SJU | Engage in the SESAR newsletter | SESAR newsletter (July 2020) | N/A | Engage 2nd summer school Engage thematic challenge workshop listed in upcoming events |
| 67 | 12-14AUG20 | UoW | Invitation to test new interactive research mapping tool | mail-out | 120 | Use case feedback requested |

| # | Date | Who | Action | Media | Reach | Summary |
|----|---------|--------|--|--|-------|--|
| 68 | 30SEP20 | SJU | Engage in the SESAR newsletter | SESAR newsletter (September 2020) | N/A | Engage thematic challenge workshop listed in upcoming events |
| 69 | 29OCT20 | SJU | Engage in the SESAR newsletter | SESAR newsletter (October 2020) | N/A | Engage thematic challenge workshop listed in upcoming events |
| 70 | 30NOV20 | SJU | Engage in the SESAR newsletter | SESAR newsletter (November 2020) | N/A | Engage thematic challenge workshops (TC2 and TC3) |
| 71 | 04DEC20 | UoW | Reminder of last chance to register for the SESAR Innovation Days (target of 1000 registrations) | mail-out | 120 | SIDs 2020 |
| 72 | 15DEC20 | SJU | Engage in the SESAR Innovation Days newsletter (post-event) | ad hoc SIDs newsletter (December 2020) | N/A | Engage presentations and Engage Wiki |
| 73 | 28JAN21 | SJU | Engage in the SESAR newsletter | SESAR newsletter (January 2021) | N/A | Jobs/internships opportunities listed on Engage website |
| 74 | 31MAR21 | UoW | Inform academia of EngageWiki's university programmes database and teaching resources support (feedback invited) | mail-out | 82 | EngageWiki content |
| 75 | 02APR21 | ATAERA | Inform ATAERA ('Air Transport and Aeronautics Education and Research Association') membership of EngageWiki's university programmes database and teaching resources support (feedback invited) | mail-out | 20 | EngageWiki content |
| 76 | 15APR21 | UoW | Inform catalyst fund project coordinators about the Digital European Sky Awards | mail-out | 22 | Digital European Sky Awards |
| 77 | 30APR21 | SJU | Engage in the SESAR newsletter | SESAR newsletter (April 2021) | N/A | Engage thematic challenge workshop listed in upcoming events |

| # | Date | Who | Action | Media | Reach | Summary |
|----|---------|-----|---|------------------------------|-------|---|
| 78 | 05MAY21 | SJU | Inform wider community of Engage economic incentives for future ATM implementation workshop | LinkedIn (SJU) | 8000+ | Engage thematic challenge workshop (TC4) |
| 79 | 10MAY21 | UoW | Inform Engage and EUROCONTROL PhD teams about the 3rd summer school and gold open access grants | mail-out | 38 | Engage 3rd summer school and gold open access grants |
| 80 | 21MAY21 | UoW | Inform Engage and EUROCONTROL PhD teams about gold open access grants | mail-out | 38 | Engage gold open access grants |
| 81 | 27MAY21 | SJU | Engage in the SESAR newsletter | SESAR newsletter (May 2021) | N/A | Engage thematic challenge workshop (TC4) |
| 82 | 11JUN21 | UoW | Engage economic incentives for future ATM implementation workshop | mail-out | 37 | Engage thematic challenge workshop (TC4) |
| 83 | 14JUN21 | UoW | Inform catalyst fund project coordinators about forthcoming Engage workshops | mail-out | 35 | Engage thematic challenge workshops (TC2, TC3 and TC4) |
| 84 | 09JUL21 | UoW | Inform Engage and EUROCONTROL PhD teams about forthcoming events | mail-out | 38 | Engage 3rd summer school Engage thematic challenge workshops (TC1, TC2 and TC3) SESAR Young Scientist Award 2021 SESAR Innovation Days conference papers |
| 85 | 20JUL21 | SJU | Engage in the SESAR newsletter | SESAR newsletter (July 2021) | N/A | Engage thematic challenge workshops (TC1, TC2 and TC3) Engage 3rd summer school |
| 86 | 20JUL21 | UoW | Update to Engage and EUROCONTROL PhD teams about forthcoming events | mail-out | 38 | Engage 3rd summer school Engage thematic challenge workshops (TC1, TC2 and TC3) SESAR Young Scientist Award 2021 |

| # | Date | Who | Action | Media | Reach | Summary |
|----|---------|-----|--|--|--------------------------|--|
| | | | | | | SESAR Innovation Days conference papers |
| 87 | 21JUL21 | UoW | Inform industry partners, subscribers, etc. about the Engage TC1, TC2, TC3 workshops and 3rd summer school | mail-out | 130 | Engage thematic challenge workshops (TC1, TC2 and TC3) Engage 3rd summer school |
| 88 | 09SEP21 | UoW | Inform Engage and EUROCONTROL PhD teams about the NATS Research Collaboration Conference | mail-out | 39 | NATS Research Collaboration Conference |
| 89 | 13SEP21 | UoW | Inform industry partners, subscribers, catalyst fund project coordinators, PhD teams, etc. about the Engage TC1 workshop | mail-out | 210 | Engage thematic challenge workshop (TC1) |
| 90 | 11NOV21 | UoW | Inform industry partners and subscribers about the SESAR Innovation Days | mail-out | 111 | SIDs 2021 |
| 91 | 10DEC21 | SJU | Engage in the SESAR Innovation Days newsletter (post-event) | ad hoc SIDs newsletter (December 2021) | N/A | Engage achievements, lessons and legacy presentation |
| 92 | 15FEB22 | INX | EngageWiki promo video | video | 29 (views up to 28FEB22) | EngageWiki video 1 |
| 93 | 24FEB22 | SJU | Engage in the SESAR innovation Pipeline 2021 | publication | N/A | Brief overview of Engage Engage 3rd summer school |
| 94 | 28FEB22 | SJU | Engage in the SESAR newsletter | SESAR newsletter (February 2021) | N/A | Discover the EngageWiki listed in latest videos |

7.2 List of Engage presentations & participation at other events

In some instances, 'reach' is unavailable or has been estimated in the following table.

Table 9: List of Engage presentations & participation at other events

| # | Date | Action | Event | Reach | Summary |
|----|------------|---------------|---|-------|--|
| 1 | 18JAN18 | Presentation | Meeting with ASDA (UoW, London) | 40 | Engage launch |
| 2 | 06FEB18 | Presentation | SESAR Scientific Committee meeting (SJU, Brussels) | N/A | Engage launch |
| 3 | 07FEB18 | Participation | Performance Assessment Work Forum (SJU, Brussels) | 35 | Engage launch |
| 4 | 14MAR18 | Presentation | EUROCONTROL ART-13 Meeting (DLR, Braunschweig) | 15 | Engage overview & PhDs |
| 5 | 10APR18 | Presentation | Air Traffic Management short course (UoW, London) | 25 | Engage overview |
| 6 | 12APR18 | Presentation | ACI EUROPE-SESAR Workshop "Exploring new concepts in air traffic management and airports" (Malta Airport) | N/A | Engage overview |
| 7 | 12APR18 | Presentation | EASN Workshop "Accelerated impact of academic aviation research for improved air transport for all European citizens" (European Commission, Brussels) | N/A | Engage overview |
| 8 | 29-30MAY18 | Presentation | SESAR Scientific Committee meeting (SJU, Brussels) | 19 | Thematic challenges, PhD Call, link with higher-maturity research, repository planning, ATM roadmap planning & databases (KTN briefing #2) |
| 9 | 11-12SEP18 | Presentation | SESAR Scientific Committee meeting (SJU, Brussels) | N/A | Management tool, PhD Call, SESAR Academy, thematic challenges & workshops (KTN briefing #3) |
| 10 | 25SEP18 | Presentation | ART meeting (EEC, Bretigny) | N/A | PhD Call, thematic challenges & workshops (~ SC KTN briefing #3) |

| # | Date | Action | Event | Reach | Summary |
|----|------------|---------------------|---|-------|--|
| 11 | 04-06DEC18 | Presentation | SESAR Innovation Days (Salzburg) | N/A | Thematic challenges update; SIDs look ahead |
| 12 | 07DEC18 | Presentation | SESAR Scientific Committee meeting (Salzburg) | N/A | Look ahead from the Engage network |
| 13 | 12-13FEB19 | Presentation | SESAR Scientific Committee meeting (SJU, Brussels) | 19 | Summary of PhD Call and outcome; overview of proposals offered funding; set in wider KTN context and with lessons learned and next steps |
| 14 | 13MAR19 | Presentation | WAC (Madrid) | 30 | FREQ presented "Importance of Knowledge Transfer" on behalf of Engage |
| 15 | 09APR19 | Poster presentation | EGU2019 | 50 | Poster presenting conclusions of the "Efficient use of MET data" (TC3) workshop, tailored for presentation at the EGU2019 conference. |
| 16 | 17APR19 | Slides | ART meeting, ENAC, Toulouse | 20 | Update provided by UoW and FTTE on Engage catalyst fund Call outcome (verbally), PhDs and summer schools (slides attached) |
| 17 | 25APR19 | Slide at panel | EUROCAE Symposium | 100 | Engage slide presented during panel presentation |
| 18 | 14-15MAY19 | Slide | Fragmentation in Air Traffic & its Impact on ATM Performance workshop (Hungarian Academy of Sciences, Budapest) | N/A | Summer school 2019 publicised by FTTE during Panel 4 presentation |
| 19 | 05JUN19 | Presentation | SESAR Scientific Committee meeting (SJU, Brussels) | 20 | Focus on: thematic challenges and catalyst funds; SIDs; summer school 2019 |
| 20 | 21JUN19 | Presentation | USA/Europe ATM R&D Seminar 2019 | 200 | Overview of Engage which included summer school 2019, TC workshops, PhDs and catalyst funds |
| 21 | 19-20SEP19 | Presentation | SESAR Scientific Committee meeting (SJU, Brussels) | 20 | Focus on: summer school 2019; forthcoming thematic challenge workshops |

| # | Date | Action | Event | Reach | Summary |
|----|------------|--------------|---|-------|---|
| 22 | SEP19 | Presentation | Meeting with various staff associations (incl. IFATCA, ETF, IFATSEA) | N/A | Overview of Engage's key activities by SJU |
| 23 | 02-05DEC19 | Presentation | SESAR Innovation Days (Athens) | 330 | Overview of Engage; delivery in 2019; getting involved in 2020 |
| 24 | 11-12FEB20 | Presentation | SESAR Scientific Committee meeting (SJU, Brussels) | 20 | Engage update |
| 25 | 14APR20 | Presentation | SESAR Scientific Committee meeting (SESAR Digital Academy Task Force) | 10 | Engage update, Covid-19 planning, links with Digital Academy |
| 26 | 24APR20 | Presentation | Slides sent to SJU for inclusion in ER4 Kick-off Meeting slides packs | 29 | Engage overview and outreach to ER4 projects |
| 27 | 10JUN20 | Presentation | SESAR Scientific Committee meeting (WebEx) | 20 | Focus on second catalyst funding call outcome |
| 28 | 17SEP20 | Presentation | SESAR Scientific Committee meeting (WebEx) | 15 | Focus on summer school; workshops; general update |
| 29 | 25SEP20 | Presentation | Engage 2020 summer school (virtual; closing dissemination) | 40 | SIDs, upcoming Engage workshops, promoting YSA |
| 30 | 29SEP20 | Presentation | Modus presentation in SJU ER4 workshop on multimodality (WebEx) | 25 | Brief overview of Engage and outreach to ER/IR projects |
| 31 | 01OCT20 | Presentation | SJU MET ER4 workshop (WebEx) | 20 | A short introduction of Engage, catalyst funding and PhDs related to MET, announcement of the workshop in January |
| 32 | 10NOV20 | Presentation | TC1 (WebEx) | 36 | Overview of Engage; new catalyst fund project launches, forthcoming activities (e.g. wiki) and workshops in 2021 |
| 33 | 07DEC20 | Presentation | SIDs opening session | 338 | Summary of major Engage activities through 2020 |
| 34 | 10DEC20 | Presentation | SIDs closing session | 83 | Summary of activities (e.g. workshops) in 2021, with a focus on the wiki |

| # | Date | Action | Event | Reach | Summary |
|----|---------|-----------------------------|---|-------|--|
| 35 | 11DEC20 | Presentation | SESAR Scientific Committee meeting (WebEx) | 20 | Summary of activities (e.g. workshops) in 2021, with a focus on the wiki |
| 36 | 17DEC20 | Presentation | ASDA (WebEx) | 15 | Engage and ASDA; focus on wiki and future collaboration |
| 37 | 11JAN21 | Presentation | NATS drone telemetry data workshop (WebEx) | 25 | Brief overview of Engage |
| 38 | 25JAN21 | Presentation | Engage TC2(3) workshop (virtual) | 66 | EngageWiki resources |
| 39 | 27JAN21 | Presentation | Engage TC3(3) workshop (virtual) | 70 | EngageWiki resources |
| 40 | 09FEB21 | Demonstration | EUROCONTROL briefing on the EngageWiki | 15 | Demonstration of the wiki |
| 41 | 11FEB21 | Presentation | SESAR Scientific Committee meeting (WebEx) | N/A | Update on Engage |
| 42 | 24MAR21 | Presentation, panel | Meteorological Technology World Expo Virtual 'Live' Conference for Aviation Meteorology | 100+ | Brief overview of TC3 and Engage wiki |
| 43 | 28APR21 | Presentation | ASDA (WebEx) | 15 | Main on-going activities and Engage wiki |
| 44 | 26MAY21 | Presentation | SESAR Digital Academy Workshop; organised by SESAR Scientific Committee (WebEx) | 20 | Main on-going activities that support the SDA (concept) |
| 45 | 10JUN21 | Presentation | SESAR Scientific Committee meeting, incl. DG MOVE representative (WebEx) | 20 | Workshops, summer school, roadmap planning |
| 46 | 21JUN21 | Presentation | Engage TC4(3) workshop (virtual) | 65 | EngageWiki resources |
| 47 | 31AUG21 | Demonstration, presentation | Engage 2021 summer school (virtual; day2) | 40 | EngageWiki resources |
| 48 | 02SEP21 | Presentation | Engage 2021 summer school (virtual; day4) | 30 | SIDs, upcoming Engage workshops, reports, EngageWiki |
| 49 | 03SEP21 | Presentation | Engage TC2(4) workshop (virtual) | 35 | Upcoming Engage activities, EngageWiki |

| # | Date | Action | Event | Reach | Summary |
|----|---------|-----------------------------|---|-------|--|
| 50 | 09SEP21 | Presentation | Engage TC3(4) workshop (virtual) | 35 | Upcoming Engage activities, EngageWiki |
| 51 | 15SEP21 | Presentation | Engage TC1(3) workshop (virtual) | 20 | Upcoming Engage activities, EngageWiki |
| 52 | 16SEP21 | Presentation | Convective and Volcanic Clouds (CVC) Training School (virtual) | 25 | N/A |
| 53 | 16SEP21 | Presentation | SESAR Scientific Committee meeting, incl. DG MOVE representative (WebEx) | 15 | Briefing on Engage summer school |
| 54 | 16SEP21 | Presentation | SESAR Scientific Committee SDA Task Force with SESAR PC Members meeting (virtual) | 20 | Briefing on Engage wiki |
| 55 | 08NOV21 | Presentation | SESAR Scientific Committee meeting (WebEx) | N/A | Update on Engage |
| 56 | 07DEC21 | Presentation. demonstration | SIDs plenary session | 293 | Summary of achievements, lessons and legacy; demonstration of the wiki |

7.3 Twitter activity log

Note that Twitter analytics underreports tweets and replies, hence there are differences between the number of Tweets and ‘topics’ listed per month.

Table 10: Twitter activity log

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|--|
| MAY18 | 1 (1) | Engage launching on Twitter soon |
| JUN18 | 2 (3) | New Engage website Engage receives H2020 funding |
| JUL18 | 13 (16) | Calls for papers Conference ATM/aviation interest Job opportunity YSA 2018 |
| AUG18 | 25 (41) | Workshops ATM/aviation interest Engage Call for PhDs & post-graduate theses Horizon 2020 information European Data Portal Calls for papers New reports YSA 2018 |
| SEP18 | 35 (76) | SESAR 2020 event Conference Job opportunities Clean Sky 2 updates Workshops Article Call for papers ATM/aviation interest SIDs 2018 Call for contributions Horizon 2020 information Engage Call for PhDs & post-graduate theses Brexit MALORCA project New report CODA airport taxi data |
| OCT18 | 31 (107) | New book Call for posters Horizon 2020 information |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|--|
| | | Job opportunities Workshops Call for papers ATM/aviation interest Drones Cybersecurity SIDs 2018 registration open SIDs 2018 poster guidelines Conferences Statistics Engage Call for PhDs & post-graduate theses COST Action |
| NOV18 | 24 (131) | Call for Papers Conferences Engage 1st Call for catalyst funding Workshops SESAR DM newsletter ATM/aviation interest Call for Proposals (Clean Sky) Drones SIDs 2018 programme SES Awards 2019 Call for Submissions |
| DEC18 | 25 (156) | Workshops Published statistics Engage thematic challenges SIDs 2018 activities New reports YSA 2018 Workshops ATM/aviation interest SESAR DM anniversary Conference Manuscript/open access/open data advice Calls for papers Cybersecurity Project results EUROCONTROL Call for PhDs Drones Mobility as a Service New journal |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|--|
| | | Engage 1st Call for catalyst funding |
| JAN19 | 46 (202) | ATM/aviation interest Drones Calls for papers Training School Call for Proposals (Horizon 2020) SES Awards 2019 Workshop PhD scholarships Articles CEF Transport information New reports SESAR R&D programme Clean Sky Academy Award Engage 1st Call for catalyst funding Big data Artificial Intelligence Call for Horizon 2020 experts Environmental challenges UK government's Horizon 2020 underwrite guarantee Data protection SESAR DM 100th milestone |
| FEB19 | 12 (214) | Calls for papers UK government's Horizon 2020 underwrite guarantee Engage 1st Call for catalyst funding Cybersecurity Europe for Aviation at World ATM Congress 2019 Study abroad/Erasmus+ Articles Machine learning guide Workshop Drones Job opportunity Training school |
| MAR19 | 17 (231) | World ATM Congress 2019 & SJU walking tours Calls for papers Mobility Workshops Cybersecurity |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|---|
| | | <ul style="list-style-type: none"> SESAR Solutions Catalogue Conferences Skyway magazine Statistics World ATM Congress 2020 dates AERODays 2019 PAAMS2019 conference International Symposium on NDT in Aerospace Articles Drones Clean Sky 2 conference (European aeronautics research at its best: What next in Horizon Europe?) |
| APR19 | 10 (241) | <ul style="list-style-type: none"> Transport Research Arena 2020 Young Researcher Competition Drones Performance Review Body positions New report Call for papers Workshops SESAR exploratory research Procurement notice Horizon Impact Award TopNav navigation competition |
| MAY19 | 15 (256) | <ul style="list-style-type: none"> EUROCONTROL reappointed as Network Manager Transport Research Arena 2020 Special Issue Conferences ADS-B in Canadian airspace Articles Drones Calls for papers New report YSA 2019 Workshops SIDs 2019 Call for contributions Remote Tower MALORCA project ATM/aviation interest OPTICS2 Interactive Database Transport Research Arena 2020 Young Researcher Competition Engage 1st summer school |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|---|
| JUN19 | 11 (267) | <ul style="list-style-type: none"> New reports Workshops ATM/aviation interest Job opportunity Drones Cybersecurity Transport Research Arena 2020 Call for papers DDR2 Paris Air Lab Articles Centenary of first non-stop transatlantic flight Heathrow Airport Expansion Masterplan Machine learning Performance Review Report 2018 Electric flight Aviation noise Aerospace Europe Conference 2020 SESAR ER4 Call |
| JUL19 | 12 (279) | <ul style="list-style-type: none"> YSA 2019 Workshops Conferences Call for Horizon 2020 experts Training School ATM/aviation interest Cybersecurity Drones Aviation weather tool Job opportunities Repetitive Flight Plans to be phased out EUROCONTROL Call for PhDs Digital Sky Challenge registration open Engage 2nd series of TC workshops |
| AUG19 | 5 (284) | <ul style="list-style-type: none"> Calls for papers Drones Conferences Job opportunities EC public consultation LAirA project webinar UTM implementations Workshops Single European Sky |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|--|
| SEP19 | 13 (297) | <ul style="list-style-type: none"> Horizon Europe survey Articles Mobility for Growth Call Single European Sky joint stakeholder declaration signed SIDs 2019 Call for contributions Cybersecurity Workshops Cybersecurity training course Conference Drones Job opportunities Call for Demonstrations Artificial Intelligence ADAPT project visualisation tool New book Digital Sky Challenge registration SJU e-news Engage 2nd series of TC workshops |
| OCT19 | 8 (305) | <ul style="list-style-type: none"> Articles New reports Training School Cybersecurity Workshops Digital Sky Challenge registration EASA tender Job opportunities Conferences SIDs 2019 registration open ATM/aviation interest Domino project blog ICRAT 2020 Call for Papers |
| NOV19 | 16 (321) | <ul style="list-style-type: none"> SESAR Deployment Manager newsletters ATM/aviation interest Drones ADS-B implementation status Articles Call for Horizon 2020 experts World ATM Congress 2020 registration open Domino project blog |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|--|
| | | <p>Network Manager User Forum 2020 registration open</p> <p>PointMerge</p> <p>PhD scholarships</p> <p>Digital Sky Challenge</p> <p>Wake-energy retrieval</p> <p>SIDs 2019 programme</p> <p>ATM Magazine awards 2019</p> <p>Job opportunities</p> <p>Workshops</p> <p>Airline fleet planning lecture</p> <p>SIDs 2019 registration closed</p> <p>World ATM Congress 2020 & SESAR DM walking tours</p> <p>Undergraduate placement scheme opportunity</p> <p>SIDs 2019 papers published</p> <p>Conference</p> |
| DEC19 | 6 (327) | <p>SIDs 2019 poster by Engage catalyst fund project</p> <p>SJU e-news</p> <p>SIDs 2019 activities</p> <p>Digital Sky Challenge outcome</p> <p>Engage 2nd cybersecurity workshop</p> <p>Engage 2nd summer school</p> <p>SIDs 2020 venue</p> <p>Articles</p> <p>Cross Border Arrival Management procedure</p> <p>Cybersecurity</p> <p>Apprenticeship scheme opportunity</p> <p>European ATM Master Plan 2020 launched</p> <p>ATM/aviation interest</p> <p>World ATM Congress 2020 Call for Presentations</p> <p>ADS-B Implementation Plan 2019</p> <p>Undergraduate placement scheme opportunity</p> |
| JAN20 | 6 (333) | <p>Engage 2nd Call for catalyst funding</p> <p>Job opportunities</p> <p>Conference</p> <p>CANSO webinar series</p> <p>EUROCONTROL now uses actual route flown when calculating route charges</p> <p>Call for Proposals (Clean Sky)</p> <p>Calls for papers</p> <p>Clean Sky Best PhD Award</p> |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|--|
| | | <p>SESAR 2nd wave of research projects</p> <p>European Innovation Council ePitching session</p> <p>Workshops</p> <p>World ATM Congress 2020 Maverick Awards</p> <p>International Transport Forum Young Researcher of the Year Award</p> <p>Apprenticeship opportunities</p> <p>Article</p> |
| FEB20 | 6 (339) | <p>Workshop</p> <p>Call for very large-scale demonstration projects</p> <p>Articles</p> <p>ATM/aviation interest</p> <p>Engage 2nd Call for catalyst funding FAQs</p> <p>World ATM Congress 2020 & SJU walking tours</p> <p>OPTICS2 project</p> <p>SESAR Digital Academy launch</p> <p>Young researchers and the future of aviation</p> <p>World ATM Congress 2020 involvement by an Engage catalyst fund project</p> <p>AEROdays 2020</p> |
| MAR20 | 17 (356) | <p>Cybersecurity</p> <p>Job opportunities</p> <p>World ATM Congress 2020</p> <p>Articles and blog posts</p> <p>PARSIFAL project final event</p> <p>SESAR innovation pipeline 2019 brochure</p> <p>Air passengers' rights</p> <p>SAFEMODE project flyer</p> <p>Transport Research Arena 2020</p> <p>European Aeronautics Days 2020</p> <p>Skyway magazine</p> <p>First Engage technical workshop</p> <p>Junior Aviation Networking event</p> <p>Covid-19 related aviation news</p> <p>Engage 2nd Call for catalyst funding</p> <p>Preliminary results U-space projects</p> <p>Clean Sky e-news</p> <p>Horizon Impact Award 2020</p> <p>Remote Tower project at Saarbrücken Airport</p> <p>World Conference on Transport Research 2025</p> <p>PansaUTM</p> |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|---|
| | | <p>Latest SJU publications</p> <p>H2020 CAMERA project workshop postponed</p> <p>Calls for Papers</p> <p>SJU e-news</p> <p>PhD scholarships</p> |
| APR20 | 7 (363) | <p>29 new SJU ER4 projects</p> <p>2nd Call for Very Large Scale Demonstration</p> <p>Articles and blog posts</p> <p>Covid-19 related aviation news</p> <p>SIDs 2020 Call for contributions</p> <p>YSA 2020</p> <p>SESAR Digital Academy webinars</p> <p>Job opportunities</p> <p>SESAR DM webinar</p> <p>Call for Papers</p> |
| MAY20 | 10 (373) | <p>Engage 2nd anniversary on Twitter</p> <p>START project launch</p> <p>ISOBAR project launch</p> <p>BUBBLES project launch</p> <p>SESAR Digital Academy webinars</p> <p>Articles and blog posts</p> <p>Covid-19 related aviation news</p> <p>SAFEMODE project survey</p> <p>Joint statement from IFATCA, IFATSEA and IFAIMA</p> <p>ATM/aviation interest</p> <p>FMP-Met project launch</p> <p>29 SJU ER4 projects</p> <p>SJU e-news</p> <p>EUROCONTROL European NOP 2020 Recovery Plan</p> |
| JUN20 | 12 (385) | <p>2nd Call for Very Large Scale Demonstration extended</p> <p>Joint event between CAMERA, OPTICS2, RINGO projects</p> <p>CADENZA project launch</p> <p>Articles and blog posts</p> <p>SESAR Digital Academy webinars</p> <p>Job opportunities</p> <p>Clean Sky e-News</p> <p>ADAPT project data visualisation tool</p> <p>COTTON project results</p> <p>CF2 project news</p> |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|--|
| | | ISOBAR project news EvoATM project modelling platform Domino project toolbox for support decision X-TEAM D2D project launch Royal Aero Society webinar Helios webinars Digital Sky vodcast Digital Sky Challenge safety winners webinar SJU e-news PhD scholarships |
| JUL20 | 9 (394) | Articles and blog posts BUBBLES project news Digital Sky vodcasts SINOPTICA project launch CANSO Covid-19 webinar Aviation Week UAM event ENAC Alumni activities Modus project launch CF1 MET Enhanced ATFCM project results SESAR DM podcasts ATM/aviation interest Clean Sky Best PhD Award 2020 Job opportunities ATM Master Plan executive summary YSA 2020 SIDs 2020 news Results from joint event between CAMERA, OPTICS2, RINGO projects CF1 the drone identity project results PhD help SESAR Digital Academy webinar SRIA Digital European Sky survey SESAR DM project in PCP SJU e-news Digital Transport Days 2020 H2020 Labyrinth programme SESAR DM e-news |
| AUG20 | 8 (402) | Job opportunities Results from joint event between CAMERA, OPTICS2, RINGO projects PhD scholarships |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|---|
| | | <ul style="list-style-type: none"> Articles and blog posts Python data science SESAR DM project in PCP FMP-Met project news Drones Call for Papers YSA 2020 Engage 2nd summer school Call for ideas for clean aviation partnerships FlyATM4E project news ER results brochure |
| SEP20 | 18 (420) | <ul style="list-style-type: none"> Clean Sky Best PhD Award 2020 Women in Innovation Awards briefing event YSA 2020 SESAR Digital Academy webinars Articles and blog posts Engage 2nd summer school European Aeronautics Days 2020 EUROCONTROL Aviation Hardtalk EUROCONTROL impact assessment of Covid-19 measures on airport performance CAMERA project news ISOBAR project workshop SIDs 2020 news SESAR DM annual event Engage 500 Twitter followers EUROCONTROL Fly AI report Single European Sky news Joint SESAR DM and EUMETNET webinar Digital Sky vodcast SESAR DM new website Modus project news |
| OCT20 | 11 (431) | <ul style="list-style-type: none"> SJU ER & IR MET and ENV workshop ISOBAR project news Articles and blog posts IFATCA magazine SJU projects on weather Clean Sky Best PhD Award 2020 International Open Access Week European Aeronautics Days 2020 Drones |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|--|
| | | ICARUS project news SESAR DM e-news SINOPTICA project news SIDs 2020 registration open International Air Traffic Controllers' Day Engage 2nd cybersecurity workshop Digital Sky vodcast SESAR Digital Academy webinars Job opportunities EUROCONTROL Aviation Intelligence Unit ANS CR free route operations SJU 60-day virtual tour of Europe BUBBLES project news SJU e-news 8th OpenSky Symposium SESAR 2020 survey CREATE project news UKRI new website PhD scholarship |
| NOV20 | 9 (440) | SAFEMODE project news Engage 2nd cybersecurity workshop Digital Sky vodcast CAMERA project news ITACA project workshop Modus project news Clean Sky Skyline SINOPTICA project news BUBBLES project news START project news SJU U-space report 8th OpenSky Symposium Articles and blog posts Calls for Papers OPTICS2 project news ALARM project launch IMHOTEP workshop ICPT 2020 conference Call for ideas for clean aviation partnerships EUROCONTROL Aviation Hardtalk SIDs 2020 programme ICARUS project news |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|--|
| | | ATM/aviation interest SJU e-news |
| DEC20 | 14 (454) | Articles and blog posts SIDs 2020 programme CF2 Weather impact prediction for ATFCM project news Call for Abstracts SIDs 2020 registration 8th OpenSky Symposium Proceedings Engage at SIDs 2020 SIDs 2020 poster exhibition EUROCONTROL Aviation Hardtalk at SIDs 2020 SIDs 2020 updates Modus project news YSA 2020 BEACON project news EngageWiki launched at SIDs 2020 Engage 3rd series of TC workshops Job opportunities EUROCONTROL NM User Forum Call for Papers SESAR DM e-news BUBBLES project brochure |
| JAN21 | 7 (461) | Call for Abstracts EUROCONTROL Think Paper Calls for Papers Job opportunities Innovation partnerships EU Startup Prize for Mobility INVIRCAT project news Modus project workshop GNSS.asia workshop Drones PhD mobility grants PhD news Posting job opportunities on Engage website World ATM Congress 2021 ARTIMATION project launch Clean Sky ADVENT project news Scientific Committee cybersecurity workshop MONDAIS session |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|---|
| | | <p>START project news</p> <p>SINOPTICA project news</p> <p>FRACS e-news with CF2 project news</p> <p>SJU portfolio of projects</p> <p>Engage 2nd cybersecurity workshop</p> <p>CF1 OPAS project results</p> <p>ALARM project news</p> <p>MONDAIS session</p> <p>YSA 2020</p> <p>Engage PhD student's research</p> <p>ISOBAR project news</p> <p>Engage 3rd data-driven trajectory prediction workshop</p> |
| FEB21 | 6 (467) | <p>OpenSky network news</p> <p>MONDAIS session</p> <p>SINOPTICA project news</p> <p>BUBBLES project workshop</p> <p>EUROCONTROL NM User Forum</p> <p>CF2 FC2A project workshop</p> <p>CF2 WIPA project at SIDs 2020</p> <p>GOF 2.0 project news</p> <p>Dispatcher3 project news</p> <p>UK green aviation technology funding</p> <p>Articles</p> <p>INVIRCAT project news</p> <p>Job opportunities</p> <p>EUROCONTROL data snapshot</p> <p>Open Research Europe news</p> <p>AEON project survey</p> <p>Engage PhD news</p> <p>ALBATROSS project news</p> <p>Cybersecurity news</p> <p>SJU e-news</p> |
| MAR21 | 12 (479) | <p>SINOPTICA project news</p> <p>MONDAIS session</p> <p>CORUS-XUAM project workshop</p> <p>ALARM project presentation</p> <p>Job and internship opportunities</p> <p>ICAO eLibrary</p> <p>PhD scholarship</p> <p>CAMERA project news</p> |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|---|
| | | AI tools in aviation SESAR innovation pipeline Engage call opportunities web page ACI EUROPE-SJU news CF1 CARGO project news CORUS-XUAM project news FlyATM4E project news ICARUS project news FLY AI webinar World ATM Congress 2022 Clean Aviation e-news TAPAS project news Articles BUBBLES project news SJU e-news Call for abstracts CREATE project news SESAR DM consultation ALARM project news CF2 WIPA project presentation Meteorological Technology World Expo news Urban Air Mobility webinar Open Research Europe news Metropolis2 project news SUSTAINair project news Digital European Sky Awards 2021 |
| APR21 | 12 (491) | Articles TindAIR project news SJU e-news Job opportunities Undergraduate research grants SESAR innovation pipeline EUROCONTROL R&D Archive SESAR DM e-news SYN+AIR project survey Call for Papers (ATM R&D Seminar) FLY AI webinar Digital European Sky Awards 2021 Open Research Europe news CF2 FC2A project workshop AW-Drones project survey |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|--|
| | | <p>SESAR AI solutions</p> <p>AMU-LED project workshop</p> <p>Nominations for student programme</p> <p>Clean Aviation event</p> <p>SESAR perfect flight</p> <p>Clean Aviation report</p> <p>MAHALO project news</p> <p>Call for Proposals (Shift2Rail)</p> <p>Call for Papers (Sustainability journal SI)</p> <p>EUROCONTROL news</p> <p>EUROCONTROL Think Paper</p> <p>U-space4UAM project news</p> <p>EUROCONTROL data snapshot</p> <p>ICARUS project news</p> <p>CF1 Exploring future UDPP concepts project news</p> <p>SINOPTICA project presentation</p> <p>SESAR Digital Academy webinar</p> <p>U-space news</p> <p>MONDAIS session</p> <p>OPTICS2 project news</p> <p>SJU family gathering event</p> <p>GOF 2.0 project news</p> <p>SESAR solutions</p> <p>NATS remote digital tower</p> <p>YSA 2021</p> |
| MAY21 | 8 (499) | <p>SlotMachine project news</p> <p>Engage economic incentives for future ATM implementation workshop</p> <p>NATS arrivals at Heathrow</p> <p>EUROCONTROL Stakeholder Forum webinar</p> <p>SESAR Digital Academy</p> <p>PhD scholarships and internships</p> <p>AURORA project news</p> <p>NATS 3Di</p> <p>FLY AI webinar</p> <p>Job opportunities</p> <p>SIDs 2021 Call for contributions</p> <p>YSA 2021</p> <p>Open Research Europe news</p> <p>Articles and blog posts</p> <p>U-space news</p> |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|--|
| | | <p>SUSTAINair project news</p> <p>Drone event</p> <p>Zero Pollution action plan</p> <p>AMU-LED project news</p> <p>CAMERA project workshop</p> <p>EUROCONTROL Aviation Sustainability Briefing</p> <p>ICARUS project workshop</p> <p>Convective and Volcanic Clouds training school</p> <p>EUROCONTROL forecast</p> <p>TindAIR project news</p> <p>Book launch</p> <p>SESAR DM webinar</p> <p>SESAR DM news</p> <p>SJU e-news</p> <p>MONDAIS session</p> <p>CF2 METSIS project video</p> <p>Modus project news</p> <p>ICARUS project datathon</p> |
| JUN21 | 19 (518) | <p>Digital European Sky Awards 2021</p> <p>EUROCONTROL Agency Research Team workshop</p> <p>EUROCONTROL Think Paper</p> <p>SESAR DM e-news</p> <p>MONDAIS session</p> <p>CEAS Women in Aerospace conference</p> <p>Job opportunities</p> <p>Engage economic incentives for future ATM implementation workshop</p> <p>SYN+AIR project news</p> <p>VigiAero project news (follow-on from CF2 WIPA project)</p> <p>ISSNOVA/ASDA Passenger-centred Mobility workshop</p> <p>RTCA International Aviation Software Summit 2021</p> <p>EUROCONTROL Stakeholder Forum webinar</p> <p>Articles and blog posts</p> <p>YSA 2021</p> <p>VOICE project news</p> <p>CAMERA project workshop</p> <p>U-space news</p> <p>SlotMachine project news</p> <p>Clean Aviation news</p> <p>CADENZA project workshop</p> |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|---|
| | | <p>GOF 2.0 project news</p> <p>SJU e-news</p> <p>9th OpenSky Symposium</p> <p>Modus project news</p> <p>HARMONY project survey</p> <p>PJ34-W3 AURA project news</p> |
| JUL21 | 13 (531) | <p>SJU annual report</p> <p>EUROCONTROL Think Paper</p> <p>YSA 2021</p> <p>Articles and blog posts</p> <p>Engage PhD student's research</p> <p>U-space news</p> <p>CF2 METSIS project video</p> <p>TROPOMI product news</p> <p>skill-UP project news</p> <p>ARTIMATION project workshop</p> <p>EUROCONTROL data snapshot</p> <p>Engage KTN news</p> <p>SIDs 2021 Call for contributions</p> <p>Job opportunities</p> <p>PJ.01 project news</p> <p>TindAIR project news</p> <p>BUBBLES project news</p> <p>CREATE project news</p> <p>Call for Tenders (EASA)</p> <p>SJU e-news</p> <p>Call for Presentations (World ATM Congress 2021)</p> <p>TRA VISIONS 2022 Young Researcher and Senior Researcher competitions</p> <p>CAMERA project workshop</p> <p>Convective and Volcanic Clouds training school</p> <p>SAFIR-Med project news</p> <p>CAMERA project news</p> <p>AEON project news</p> <p>OPTICS2 project workshop</p> <p>PJ.05 project news</p> <p>MathWorks Minidrone competition</p> <p>Call for Abstracts (Convective and Volcanic Clouds training school)</p> <p>PJ.07 project news</p> |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|--|
| AUG21 | 14 (545) | <p>CAMERA project workshop</p> <p>SAFIR-Med project workshop</p> <p>PJ.09 project news</p> <p>AMU-LED project news</p> <p>AEON project news</p> <p>BEACON project survey</p> <p>NATS AIS website</p> <p>Engage AI, ML and Automation workshop</p> <p>Engage efficient provision and use of MET information in ATM workshop</p> <p>Engage 3rd summer school</p> <p>CAMERA project workshop</p> <p>ACI EUROPE workshop</p> <p>YSA 2021</p> <p>ICARUS project news</p> <p>PJ.19 project news</p> <p>LinkedIn big data and artificial intelligence in ATM group</p> <p>DataBeacon product news</p> <p>Job opportunities</p> <p>Call for Papers (ICAS 2022)</p> <p>RPAS</p> <p>AURORA project workshop</p> <p>CREATE project news</p> |
| SEP21 | 17 (562) | <p>Engage 3rd summer school</p> <p>Articles and blog posts</p> <p>Job opportunities</p> <p>Engage AI, ML and Automation workshop</p> <p>ICARUS project news</p> <p>Convective and Volcanic Clouds training school</p> <p>Engage efficient provision and use of MET information in ATM workshop</p> <p>CADENZA project workshop</p> <p>CAMERA project workshop</p> <p>SIDs 2021 Call for contributions</p> <p>SafeOPS project workshop</p> <p>Engage vulnerabilities and global security of the CNS/ATM system workshop</p> <p>PJ.34 project news</p> <p>ALARM project presentation</p> <p>OPTICS2 project workshop</p> <p>ACI EUROPE Awards</p> |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|---|
| | | ANIMA project workshop GOF 2.0 project news OpenSky network news EUROCONTROL Stakeholder Forum webinar SESAR Digital Academy webinar SYN+AIR project workshop PJ.14 project news PJ.13 project news SATIE project workshop BA perfect flight ISOBAR project workshop YSA 2021 NATS virtual research collaboration conference Call for Digital Sky Demonstrators (CINEA) ALBATROSS project news PJ34-W3 AURA project workshop ALARM project news SESAR Solutions Catalogue Modus project news European Startup Prize |
| OCT21 | 4 (566) | SJU e-news EUROCONTROL Stakeholder Forum webinar OPTICS2 project workshop SESAR Solutions Catalogue NATS virtual research collaboration conference Job opportunities European Startup Prize PJ34-W3 AURA project news TindAIR project news SIDs 2021 Call for contributions 9th OpenSky Symposium CAMERA project workshop Call for Digital Sky Demonstrators (CINEA) CORUS-XUAM project news AEON project news BUBBLES project workshop ALBATROSS project news SESAR Digital Academy webinar SESAR weather projects START project presentation TindAIR project workshop |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|---|
| | | <ul style="list-style-type: none"> Drone consultation SESAR spotlight event OPTICS2 project news MAHEPA project workshop European Convection Forecast product news (linked with CF1 MET enhanced ATFCM project) Modus project news Articles and blog posts CADENZA project presentation Multiple remote towers validation open day U-space news MAHALO project news AMU-LED project news COP26 airspace restrictions |
| NOV21 | 5 (571) | <ul style="list-style-type: none"> SIDs 2021 registration open SESAR spotlight event Job opportunities ALBATROSS project news TindAIR project workshop SAFIR-Med project news Call for Papers (ICAS 2022) CAMERA project workshop BUBBLES project workshop FlyATM4E project news SINOPTICA project news CREATE project presentation PJ.02 project news Fello'fly news ARTIMATION project news European Startup Prize NATS virtual research collaboration conference CF2 project summaries PJ.05-35 project news Articles CAMERA project news U-space news LABYRINTH PhD webinar series SESAR Solutions Catalogue SESAR DM SWIM webinar Clean Aviation Scientific Advisory Body X-TEAM D2D project news |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|---|
| | | <ul style="list-style-type: none"> SlotMachine project news SAFEMODE project workshop SJU e-news |
| DEC21 | 12 (583) | <ul style="list-style-type: none"> Clean Aviation news EUROCONTROL data snapshot VOICE project news CORUS-XUAM project news SIDs 2021 programme and registration Various projects presenting and exhibiting at SIDs 2021 SYN+AIR project survey Job opportunities BUBBLES project workshop Articles AW-Drones project workshop SESAR DM 200th completed project SIDs 2021 Whova app SIDs 2021 updates Engage presentation at SIDs 2021 SIDs 2021 panel discussion Metropolis2 project news YSA 2021 at SIDs 2021 EUROCONTROL data snapshot SESAR 3 JU official launch 9th OpenSky Symposium PhD scholarships Delivering the Digital European Sky SJU 2021 highlights Modus project news GOF 2.0 project news NATS women in STEM event SESAR Solutions Catalogue EUROCONTROL YouTube channel MAHALO project news |
| JAN22 | 4 (587) | <ul style="list-style-type: none"> Job opportunities EUROCONTROL NM User Forum Clean Aviation Forum Call for Digital Sky Demonstrators (CINEA) INVIRCAT project news SESAR 3 JU news U-space event |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|---|
| | | <p>Modus project workshop</p> <p>SATCOM for aviation webinar</p> <p>YSA 2021 winners</p> <p>INVIRCAT virtual open day</p> <p>DREAMS project news</p> <p>EASA survey</p> <p>DACUS project news</p> <p>ECHO project news</p> <p>Engage PhD student's article</p> <p>SAFIR-Med project news</p> <p>Electric aircraft news</p> <p>VOICE project news</p> <p>SESAR Digital Academy webinar</p> <p>CREATE project news</p> <p>Horizon Europe Info Day</p> <p>ARTIMATION project news</p> <p>CORUS-XUAM project news</p> <p>ALBATROSS project news</p> <p>SESAR DM SWIM workshop</p> <p>SJU e-news</p> <p>Articles</p> <p>ERICA project news</p> |
| FEB22 | 7 (594) | <p>SESAR Solutions Catalogue</p> <p>VOICE project workshop</p> <p>Articles</p> <p>Satellite-based technology news</p> <p>EUROCONTROL NM User Forum</p> <p>PJ.05-W2 online open day</p> <p>Job opportunities</p> <p>EUROCONTROL U-space webinar</p> <p>Modus project workshop</p> <p>Automated runway monitoring system news</p> <p>TindAIR project news</p> <p>CORUS-XUAM project workshop</p> <p>SESAR DM e-news</p> <p>IRIS SATCOM webinar</p> <p>FlyATM4E project news</p> <p>EASA High Level Conference on Drones</p> <p>SAFEMODE project news</p> <p>SESAR Digital Academy webinar</p> <p>EngageWiki video</p> |

| Month | Tweets/Retweets (cumulative) | Topics |
|-------|------------------------------|---|
| | | Implementation of the Aerodrome 'Triple One' Concept project news PJ.02-W2 project news TindAIR project survey Engage PhD student's article TRA VISIONS 2022 Young Researcher and Senior Researcher competitions Open Research Europe news SESAR 3 JU news Urban air mobility webinar PhD scholarship EUROCAE Symposium 2022 SESAR innovation pipeline SJU e-news |

8 Appendix II

This appendix logs the events, opportunities and activities publicised on the Engage website (engagektn.com) and EngageWiki (wikiengagektn.com).

8.1 Events publicised

A total of 326 workshops, conferences and webinars have been publicised by Engage since 2018 [2]. Links to past events were retained for at least a month afterwards, along with all SESAR Digital Academy webinars (for replays). Apart from links to SESAR Digital Academy webinars, links to previous events have not been archived on the website or wiki.

Table 11: Events publicised

| # | Date | Event | Where |
|---|------------|---|-----------------------|
| 1 | 05MAR18 | AUTOPACE project workshop - Final Dissemination Event | Madrid, Spain |
| 2 | 13MAR18 | EUROCONTROL Agency Research Team workshop - Communication, Navigation and Surveillance (CNS) and Infrastructure | Braunschweig, Germany |
| 3 | 11APR18 | TaCo project final workshop - Supporting air traffic controllers in complex airport environments through automation | Malta |
| 4 | 12APR18 | ACI EUROPE-SESAR workshop - Exploring new concepts in air traffic management and airports | Malta |
| 5 | 03-04MAY18 | TBO-Met project final workshop - Management of Meteorological Uncertainty | Salzburg, Austria |
| 6 | 15-16MAY18 | Baltic FAB/FABEC/G.A.R.S. joint workshop - Volatility in air traffic and its impact on ATM performance | Warsaw, Poland |
| 7 | 31MAY18 | STRESS/MOTO/TACO projects joint final event - Keeping the human in the loop in the digital ATM era | Toulouse, France |
| 8 | 05-06JUN18 | OPTICS2 project workshop - Aviation cybersecurity: What's around the corner, and are we ready for it? | Cologne, Germany |

| # | Date | Event | Where |
|----|------------|---|----------------------------|
| 9 | 25JUN18 | DART/datACRON projects joint workshop - Data-enhanced trajectory-based operations | Barcelona, Spain |
| 10 | 26-29JUN18 | ICRAT 2018 - 8th International Conference for Research in Air Transportation | Barcelona, Spain |
| 11 | 05-06JUL18 | SES/SESAR airspace architecture study first workshop | Brussels, Belgium |
| 12 | 24JUL18 | FAA Technical Exchange Session - Transformation of the National Airspace System and ATM in the US and Current Problems Driving the Need for Trajectory Based Operations | Belgrade, Serbia |
| 13 | 14SEP18 | COCTA project final workshop | Brussels, Belgium |
| 14 | 24-25SEP18 | FAA-EUROCONTROL Technical Interchange Meeting/Agency Research Team workshop - Machine Learning and Artificial Intelligence | Paris, France |
| 15 | 11OCT18 | Data Science in Aviation 2018 Workshop | Cologne, Germany |
| 16 | 12OCT18 | OPTICS2 2nd workshop - Data Science for Aviation Safety: Turning data into insights for safety and performance | Cologne, Germany |
| 17 | 22-23OCT18 | ATM Policy Institute workshop - ATM reform: less stick, more carrot? [event subsequently cancelled] | Amsterdam, The Netherlands |
| 18 | 25OCT18 | Engage KTN thematic challenge workshop - Novel and more effective allocation markets in ATM | London, UK |
| 19 | 06NOV18 | Engage KTN thematic challenge workshop - Data-driven trajectory prediction | Barcelona, Spain |
| 20 | 06-07NOV18 | Future Sky Safety final public workshop | Brussels, Belgium |
| 21 | 07-08NOV18 | ASD Days | Paris, France |
| 22 | 13NOV18 | Engage KTN thematic challenge workshop - Efficient provision and use of meteorological information in ATM | Brussels, Belgium |
| 23 | 13NOV18 | Mobility4EU final public event - Towards user-centric transport in Europe: Enabling seamless and sustainable mobility for all | Brussels, Belgium |
| 24 | 15-16NOV18 | 6th OpenSky Workshop | Frankfurt, Germany |

| # | Date | Event | Where |
|----|------------|--|-------------------|
| 25 | 19NOV18 | Delivering EU-wide multimodal travel information, planning and ticketing services: dream or reality? | Brussels, Belgium |
| 26 | 20-21NOV18 | 2nd SES/SESAR Airspace Architecture Study workshop | Brussels, Belgium |
| 27 | 26NOV18 | Vertical Flight Efficiency workshop | Brussels, Belgium |
| 28 | 26NOV18 | ACI EUROPE-SESAR workshop - The drone and the airport: friend and foe? | Oslo, Norway |
| 29 | 03DEC18 | ASDA Tournaments 2018: Passenger centric air transport & Digitalisation | Salzburg, Austria |
| 30 | 03-07DEC18 | SESAR Innovation Days 2018 | Salzburg, Austria |
| 31 | 13-17JAN19 | Transportation Research Board (TRB) 98th Annual Meeting | Washington, USA |
| 32 | 30-31JAN19 | Network Manager User Forum 2019 | Brussels, Belgium |
| 33 | 11-13MAR19 | RINGO workshop on Aviation Research Infrastructures needs - session #1 | Madrid, Spain |
| 34 | 11-15MAR19 | UNAGI workshop - Unmanned aerial vehicle applications in the smart city: From guidance technology to enhanced system interaction | Kyoto, Japan |
| 35 | 12-14MAR19 | World ATM Congress 2019 | Madrid, Spain |
| 36 | 19MAR19 | Aerospace Forum Birmingham | Birmingham, UK |
| 37 | 27MAR19 | Engage KTN thematic challenge workshop - Vulnerabilities and global security of the CNS/ATM system | Brussels, Belgium |
| 38 | 02-03APR19 | RINGO workshop on Aviation Research Infrastructures needs - session #2 | Paris, France |
| 39 | 02-05APR19 | 3rd CORUS U-Space workshop - Concept of Operations for European UTM Systems | Rome, Italy |
| 40 | 07-12APR19 | EGU General Assembly 2019 - includes Atmospheric Sciences sessions | Vienna, Austria |
| 41 | 09-10APR19 | Clean Sky 2 - European aeronautics research at its best: What next in Horizon Europe? | Brussels, Belgium |

| # | Date | Event | Where |
|----|------------|--|------------------------|
| 42 | 16-17APR19 | EUROCONTROL Agency Research Team workshop - Aviation Economics and Business Models | Toulouse, France |
| 43 | 25-26APR19 | EUROCAE Symposium 2019 & 56th General Assembly | Toulouse, France |
| 44 | 14-15MAY19 | Fragmentation in Air Traffic and its Impact on ATM Performance | Budapest, Hungary |
| 45 | 21MAY19 | RINGO workshop on Aviation Research Infrastructures needs - session #3 | Delft, The Netherlands |
| 46 | 21MAY19 | ITF pre-Summit Research Day - Transport Connectivity for Regional Integration | Leipzig, Germany |
| 47 | 22-24MAY19 | ITF 2019 Summit - Transport Connectivity for Regional Integration | Leipzig, Germany |
| 48 | 26-31MAY19 | 15th World Conference on Transport Research (WCTR) | Mumbai, India |
| 49 | 27-30MAY19 | AERODays 2019 - 8th European Aeronautics Days | Bucharest, Romania |
| 50 | 28MAY19 | RINGO workshop on Aviation Research Infrastructures needs - session #4 | Bucharest, Romania |
| 51 | 29MAY19 | RADIAN-ETNA2020 workshop on Stimulating R&I cooperation with new actors of the European Aerospace sector | Bucharest, Romania |
| 52 | 03-04JUN19 | SESAR - Delivering the future of aviation together | Bucharest, Romania |
| 53 | 04-05JUN19 | 7th Safety Forum - Safety and Procedures | Brussels, Belgium |
| 54 | 12-14JUN19 | 2019 EASA-FAA International Aviation Safety Conference | Cologne, Germany |
| 55 | 13-14JUN19 | CIT19 - International Conference on Integrated Transport 2019 | Stockholm, Sweden |
| 56 | 17-21JUN19 | 13th USA/Europe ATM R&D Seminar | Vienna, Austria |
| 57 | 20-21JUN19 | 8th Conference on the Regulation of Infrastructures. Digital Platforms - The New Network Industries? How to regulate them? | Florence, Italy |
| 58 | 23-26JUN19 | EURO 2019 - 30th European Conference on Operational Research | Dublin, Ireland |

| # | Date | Event | Where |
|----|-----------------|--|----------------------------|
| 59 | 26-28JUN19 | PAAMS 19 - 17th International Conference on Practical Applications of Agents and Multi-Agent Systems | Ávila, Spain |
| 60 | 01JUL19 | 16th Aviation Student Research Workshop | Amsterdam, The Netherlands |
| 61 | 02-05JUL19 | 23rd Air Transport Research Society World Conference (ATRS) | Amsterdam, The Netherlands |
| 62 | 03-06JUL19 | IC-EpsMsO 2019 - 8th International Conference on Experiments/Process/System Modeling/Simulation/Optimization | Athens, Greece |
| 63 | 09JUL19 | CAMERA workshop - Validation of CAMERA methodology | Brussels, Belgium |
| 64 | 29AUG19 | VUTURA workshop - Game of Drones | Enschede, The Netherlands |
| 65 | 03-06SEP19 | 9th EASN International Conference on Innovation in Aviation & Space | Athens, Greece |
| 66 | 09–10SEP19 | ATM liberalisation: The catalysts for change? | London, UK |
| 67 | 10SEP19 | On-demand and Shared Mobility Policy | Munich, Germany |
| 68 | 11-12SEP19 | mobil.TUM 2019 - Transportation Systems of the Future | Munich, Germany |
| 69 | 13SEP19 | On-demand and Shared Mobility Research | Munich, Germany |
| 70 | 13SEP19 | 1st workshop on Application of System Dynamics (SD) in Mobility and Transportation | Munich, Germany |
| 71 | 13SEP19 | 1st workshop on Urban Air Mobility in Future Transport Environments | Munich, Germany |
| 72 | 18-20SEP19 | 6th International Air Transport and Operations Symposium (ATOS) | Hamburg, Germany |
| 73 | 24-26SEP19 | European Research and Innovation Days | Brussels, Belgium |
| 74 | 26SEP19 | Sustainable Pathway to Future Aviation | Brussels, Belgium |
| 75 | 30SEP19-01OCT19 | U-space ConOps and research dissemination conference | Brussels, Belgium |

| # | Date | Event | Where |
|----|------------|---|---------------------------------------|
| 76 | 02OCT19 | The Future in Aviation: Iris, a reality for Air Traffic Management | Steenokkerzeel, Belgium |
| 77 | 03OCT19 | Cities and Metropolitan Airport Areas: Looking for New Approaches | Brussels, Belgium |
| 78 | 09-11OCT19 | 47th European Transport Conference (ETC) | Dublin, Ireland |
| 79 | 17OCT19 | ENVISION project: final event at Carcassonne Airport | Carcassonne, France |
| 80 | 05NOV19 | Engage KTN thematic challenge workshop - Efficient provision and use of meteorological information in ATM | Brussels, Belgium |
| 81 | 07-08NOV19 | 8th European Aviation Conference (EAC) | Vienna, Austria |
| 82 | 12NOV19 | Engage KTN thematic challenge workshop - Novel and more effective allocation markets in ATM | Madrid, Spain |
| 83 | 12-13NOV19 | 8th International Conference on Air Transport (INAIR) | Budapest, Hungary |
| 84 | 27NOV19 | Sustainable Fuels for Aviation in Europe | Brussels, Belgium |
| 85 | 02DEC19 | Engage KTN thematic challenge workshop - Data-driven trajectory prediction | Athens, Greece (co-located with SIDs) |
| 86 | 02DEC19 | COTTON project final workshop | Athens, Greece (co-located with SIDs) |
| 87 | 02-05DEC19 | SESAR Innovation Days 2019 | Athens, Greece |
| 88 | 05DEC19 | LAirA project final conference & Greenairport meeting | Budapest, Hungary |
| 89 | 12-16JAN20 | 99th Transportation Research Board Annual Meeting (TRB) | Washington, USA |
| 90 | 23-25JAN20 | First Symposium on Aviation Research (SoAR) | Oporto, Portugal |
| 91 | 29-30JAN20 | Network Manager User Forum 2020 | Brussels, Belgium |
| 92 | 25-28FEB20 | 1st Aerospace Europe Conference 2020 | Bordeaux, France |

| # | Date | Event | Where |
|-----|------------|---|---------------------|
| 93 | 10-12MAR19 | World ATM Congress 2020 [event subsequently cancelled due to Covid-19] | Madrid, Spain |
| 94 | 17-18MAR20 | The Aircraft Commander in the 21st Century | London, UK |
| 95 | 27-30APR20 | TRA2020 - Transport Research Arena [event subsequently cancelled due to Covid-19] | Helsinki, Finland |
| 96 | 28APR20 | SESAR Digital Academy U-space session: From concept to reality | webinar |
| 97 | 28APR20 | SESAR Digital Academy U-space session: Taking up the U-space challenge | webinar |
| 98 | 30APR20 | SESAR Digital Academy U-space session: Demonstrating U-space | webinar |
| 99 | 13-14MAY20 | ICARe final workshop - Greening of aviation, an International Challenge for Aviation in 2050 [event subsequently cancelled due to Covid-19] | Berlin, Germany |
| 100 | 15JUN20 | SESAR Digital Academy Exploring the boundaries of ATM session: Project results on enabling trajectory-based operations | webinar |
| 101 | 23JUN20 | SESAR Digital Academy Exploring the boundaries of ATM session: ATM architecture and CNS | webinar |
| 102 | 29JUN20 | SESAR Digital Academy Nurturing Young Talent session: Recognising excellence through the SESAR Young Scientist Award | webinar |
| 103 | 30JUN20 | SESAR Digital Academy Nurturing Young Talent session: A look back on the Digital Sky Challenge Hackathon | webinar |
| 104 | 30JUN20 | SESAR Digital Academy Digitalising Europe's Aviation Infrastructure session: The European ATM Master Plan in a nutshell | webinar |
| 105 | 02JUL20 | Covid-19: A game changer for aviation? - Is Covid-19 a game changer for ATM? | Digital Sky vodcast |
| 106 | 07JUL20 | Covid-19: A game changer for aviation? - How can ATM innovation help to reboot aviation sustainably? | Digital Sky vodcast |
| 107 | 09JUL20 | Safely Navigating the Industry Restart Series-Safety Culture & SMS During a Pandemic | webinar |
| 108 | 16JUL20 | Covid-19: A game changer for aviation? - How will digital transformation build resilience in ATM? | Digital Sky vodcast |

| # | Date | Event | Where |
|-----|------------|--|---------------------|
| 109 | 17JUL20 | Covid-19: A game changer for aviation? - How can ATM innovation help airlines and airports in the recovery? | Digital Sky vodcast |
| 110 | 22JUL20 | SESAR Digital Academy Towards higher levels of automation session: Artificial Intelligence (part 1) | webinar |
| 111 | 24JUL20 | SESAR Digital Academy Towards higher levels of automation session: Artificial Intelligence (part 2) | webinar |
| 112 | 02-04SEP20 | 10th EASN Virtual International Conference | virtual |
| 113 | 15SEP20 | ICRAT 2020 - 9th International Conference for Research in Air Transportation (date rescheduled from 23-26JUN20 due to Covid-19) | virtual |
| 114 | 15SEP20 | SESAR Digital Academy Virtualisation session: Remote Towers | webinar |
| 115 | 16SEP20 | AISA project: 1st CONOPS workshop | virtual |
| 116 | 29SEP20 | SESAR Digital Academy Virtualisation session: Virtual Centres | webinar |
| 117 | 29SEP20 | Airline Forum 2020 (online edition) | virtual |
| 118 | 01OCT20 | ISOBAR project: 1st workshop | virtual |
| 119 | 06OCT20 | SESAR Digital Academy Digitalising Europe's Aviation Infrastructure session: A holistic approach towards CNS | webinar |
| 120 | 12OCT20 | EUROCONTROL NM B2B Technical Forum (limited edition) | webinar |
| 121 | 13OCT20 | Covid-19: A game changer for aviation? - Deploying in a time of Covid | Digital Sky vodcast |
| 122 | 21-23OCT20 | Research Workshop: Interdependencies within ATM Performance in the context of a dynamic environment (date rescheduled from 14-15MAY20 due to Covid-19) | virtual |
| 123 | 22OCT20 | SESAR Digital Academy Digitalising Europe's Aviation Infrastructure session: Exploring the future vision and technological innovations in CNS | webinar |

| # | Date | Event | Where |
|-----|------------|--|---------------------|
| 124 | 29OCT20 | EUMETNET & SESAR Deployment Manager Webinar - New Pan-European Weather Information to Support Aviation | webinar |
| 125 | 30OCT20 | Virtual EUROSIM Simulation Seminar - Socio-Technical Simulation Models to Improve Human Performance in Very Demanding Contexts: A Cockpit Artificial Intelligence Use Case | virtual |
| 126 | 05NOV20 | AW-Drones 2nd workshop - Technical standards to support U-Space implementation in Europe | virtual |
| 127 | 09NOV20 | Technical Interchange Meeting (TIM) - Unmanned Aerial Systems and Urban Air Mobility - UAS, UTM and UAM Programmes in the US and Europe | webinar |
| 128 | 10NOV20 | Engage KTN thematic challenge workshop - Vulnerabilities and global security of the CNS/ATM system (date rescheduled from 17JUN20 due to Covid-19) | virtual |
| 129 | 10NOV20 | Covid-19: A game changer for aviation? - The economics of ATM post-Covid | Digital Sky vodcast |
| 130 | 10NOV20 | Technical Interchange Meeting (TIM) - Unmanned Aerial Systems and Urban Air Mobility - Integrated CNS for UAS Operations | webinar |
| 131 | 12NOV20 | Technical Interchange Meeting (TIM) - Unmanned Aerial Systems and Urban Air Mobility - UTM Safety Data and Safety Reporting | webinar |
| 132 | 12NOV20 | SESAR Digital Academy U-space session: SESAR U-space consolidated research results | webinar |
| 133 | 12-13NOV20 | 8th OpenSky Symposium | virtual |
| 134 | 13NOV20 | Technical Interchange Meeting (TIM) - Unmanned Aerial Systems and Urban Air Mobility - ATM - UTM Integration | webinar |
| 135 | 13NOV20 | Virtual EUROSIM Simulation Seminar - Use of Simulations for Airport Characterization, Planning and Design | virtual |
| 136 | 17NOV20 | Covid-19: A game changer for aviation? - Building a better future | Digital Sky vodcast |
| 137 | 17NOV20 | 30th ACI EUROPE Annual Assembly and Congress | virtual |
| 138 | 18NOV20 | Digital Transport Days 2020 | virtual |

| # | Date | Event | Where |
|-----|------------|--|-----------------|
| 139 | 19NOV20 | SESAR Digital Academy Smart and sustainable solutions for greener ATM session: Greener airport operations | webinar |
| 140 | 24-26NOV20 | AERODays 2020 - 9th European Aeronautics Days [date rescheduled from 12-17MAY20 due to Covid-19] | Berlin, Germany |
| 141 | 25NOV20 | SESAR Deployment Manager Annual Meeting 2020 | virtual |
| 142 | 25NOV20 | 1st IMHOTEP stakeholder workshop [workshop held on two different dates] | virtual |
| 143 | 27NOV20 | 1st IMHOTEP stakeholder workshop [workshop held on two different dates] | virtual |
| 144 | 27NOV20 | Virtual EUROSIM Simulation Seminar - The Connected Aircraft Cabin: Passenger Boarding in the Times of Covid-19 | virtual |
| 145 | 04DEC20 | SESAR Digital Academy Smart and sustainable solutions for greener ATM session: Greener arrivals and departures | webinar |
| 146 | 07-10DEC20 | SESAR Innovation Days 2020 | virtual |
| 147 | 14DEC20 | SESAR Digital Academy Smart and sustainable solutions for greener ATM session: Greener en-route | webinar |
| 148 | 19JAN21 | Modus workshop - The future of multimodal air transport | virtual |
| 149 | 19JAN21 | GNSS.asia - EU-Taiwan workshop on GNSS for UTM and UAVs | virtual |
| 150 | 21JAN21 | Cybersecurity in ATM workshop 1 (organised by SESAR JU's Scientific Committee) | virtual |
| 151 | 25JAN21 | Engage KTN thematic challenge workshop - Data-driven trajectory prediction | virtual |
| 152 | 27JAN21 | Engage KTN thematic challenge workshop - Efficient provision and use of meteorological information in ATM | virtual |
| 153 | 28JAN21 | Cybersecurity in ATM workshop 2 (organised by SESAR JU's Scientific Committee) | virtual |
| 154 | 01FEB21 | MONDAIS February edition - AI roadmaps in aviation | virtual |

| # | Date | Event | Where |
|-----|------------|--|---------|
| 155 | 04FEB21 | Cybersecurity in ATM workshop 3 (organised by SESAR JU's Scientific Committee) | virtual |
| 156 | 08-12FEB21 | Network Manager User Week 2021 | virtual |
| 157 | 16FEB21 | Flight Centric ATC with Airstreams (FC2A project) - operational workshop | virtual |
| 158 | 24FEB21 | FLY AI webinar - Partnering for AI in aviation | virtual |
| 159 | 25FEB21 | BUBBLES workshop - Separation management in the U-space: a key enabler to boost U3 services take-off | virtual |
| 160 | 25FEB21 | SESAR Digital Academy ATM cyber-security: The industry perspective | webinar |
| 161 | 01MAR21 | MONDAIS (first) March edition - AI for safety-critical systems | virtual |
| 162 | 02MAR21 | InterFAB ExpertTalk #1 ATM performance data - The accuracy of forecasts | virtual |
| 163 | 19MAR21 | Virtual EUROSIM Simulation Seminar - Simulation of Humanitarian Logistics for Covid 19 | virtual |
| 164 | 23MAR21 | FLY AI webinar - Research and Innovation in AI for Aviation | virtual |
| 165 | 23MAR21 | USEPE (U-space SEPARation in Europe) - 1st validation workshop | virtual |
| 166 | 24MAR21 | 1st Meteorological Technology World Expo Conference for Aviation Meteorology | virtual |
| 167 | 24MAR21 | InterFAB ExpertTalk #2 ATM performance data - Economic surplus | virtual |
| 168 | 26MAR21 | 15th Florence Air Forum - Streamlining Economic Regulation for Air Traffic Management in Europe | virtual |
| 169 | 29MAR21 | MONDAIS (second) March edition - Making datasets available for AI applications | virtual |
| 170 | 12APR21 | FLY AI webinar - AI in ATM: Enablers and use cases | virtual |
| 171 | 15APR21 | Flight Centric ATC with Airstreams (FC2A project) - industrial workshop | virtual |

| # | Date | Event | Where |
|-----|------------|--|---------|
| 172 | 19-30APR21 | EGU General Assembly 2021 - includes 'Convective and Volcanic Clouds (CVC) and possible impact on aviation management' session | virtual |
| 173 | 20APR21 | InterFAB ExpertTalk #3 ATM performance data - Cost of delay | virtual |
| 174 | 22APR21 | Clean Sky - Clean Aviation for a Competitive Green Recovery in Europe: Innovative Ideas Take Flight | virtual |
| 175 | 23APR21 | Presenting LDACS - A general introduction to LDACS | virtual |
| 176 | 29APR21 | SESAR Digital Academy Innovation in airspace utilisation session: Innovation in airspace utilisation | webinar |
| 177 | 30APR21 | AMU-LED (Air Mobility Urban - Large Experimental Demonstrations) - first workshop | virtual |
| 178 | 03MAY21 | MONDAIS May edition - AI case studies in aviation | virtual |
| 179 | 11MAY21 | SESAR Digital Academy Innovation in airspace utilisation session: Automated Speech Recognition for Air Traffic Control | webinar |
| 180 | 11MAY21 | InterFAB ExpertTalk #4 ATM performance data - Climate change and the role of ATM | virtual |
| 181 | 18MAY21 | FLY AI webinar – Sharing data for AI in aviation | virtual |
| 182 | 19MAY21 | EUROCONTROL Stakeholder Forum - Point Merge | virtual |
| 183 | 20MAY21 | ACI EUROPE - 2nd Aviation Sustainability Summit | virtual |
| 184 | 27MAY21 | SESAR PJ05-W2 - Digital Technologies for Tower open day | virtual |
| 185 | 27MAY21 | EUROCONTROL Stakeholder Forum - Airside electrification at airports | virtual |
| 186 | 28MAY21 | ICARUS workshop - Aviation-driven data value chain for diversified global and local operations | virtual |
| 187 | 02JUN21 | EUROCONTROL Stakeholder Forum - Aviation standardisation | virtual |

| # | Date | Event | Where |
|-----|------------|---|-----------------|
| 188 | 02JUN21 | Technical details and capabilities of LDACS | virtual |
| 189 | 07JUN21 | MONDAIS June edition - Activating Machine Learning in Aviation | virtual |
| 190 | 10-11JUN21 | 10th Conference on the Regulation of Infrastructures. Infrastructure Investment Challenges: reconciling Competition, Decarbonisation and Digitalisation | Florence, Italy |
| 191 | 14JUN21 | Passenger-centred Mobility Workshop - Status of Mobility Research in Europe - A Reality Check (organised by ACARE WG1) | virtual |
| 192 | 15JUN21 | Passenger-centred Mobility Workshop - Mobility Performance Assessment from a Network and Passenger Perspective (organised by EUROCONTROL) | virtual |
| 193 | 15JUN21 | FLY AI webinar - AI for cyber and cyber for AI | virtual |
| 194 | 16JUN21 | Passenger-centred Mobility Workshop - How the ATM Scientific Community can support the Multimodal Transportation System Effectiveness (organised by ISSNOVA and ASDA) | virtual |
| 195 | 16JUN21 | EAC Webinar - Aviation and Climate Change: Given What We Know Today, What Should Europe Do Tomorrow? | virtual |
| 196 | 17JUN21 | Passenger-centred Mobility Workshop - Exploring the Main Mobility Research Gaps in Europe (organised by the Camera project) | virtual |
| 197 | 17JUN21 | ACI EUROPE - Airport Economics Symposium | virtual |
| 198 | 17JUN21 | EUROCONTROL Stakeholder Forum - Real-time simulations | virtual |
| 199 | 21JUN21 | Engage KTN thematic challenge workshop - Economic incentives for future ATM implementation | virtual |
| 200 | 22JUN21 | SESAR Deployment Manager and EUROCONTROL - SWIM Webinar | virtual |
| 201 | 23-24JUN21 | European Research and Innovation Days | virtual |
| 202 | 23-24JUN21 | International Aviation Software Summit 2021 | virtual |

| # | Date | Event | Where |
|-----|------------|--|----------------|
| 203 | 24JUN21 | InterFAB ExpertTalk #5 ATM performance data - Volatility in air traffic: a growing challenge for the aviation sector | virtual |
| 204 | 25JUN21 | 1st CEAS Women in Aerospace Conference | virtual |
| 205 | 30JUN21 | FLY AI webinar - AI training & change management in aviation | virtual |
| 206 | 01JUL21 | LDACS deployment options and transition scenarios | virtual |
| 207 | 07-10JUL21 | IC-EpsMsO 2021 - 9th International Conference on Experiments/Process/System Modeling/Simulation/Optimization | Athens, Greece |
| 208 | 12JUL21 | EUROCONTROL Stakeholder Forum - Intermodal transport and regional connectivity | virtual |
| 209 | 03SEP21 | Engage KTN thematic challenge workshop - AI, ML and Automation | virtual |
| 210 | 06-07SEP21 | OPTICS2 3rd workshop – Towards SAFE and SECURE Urban Air Mobility (date rescheduled from 08-10JUN20 due to Covid-19) | virtual |
| 211 | 06-18SEP21 | Convective and Volcanic Clouds (CVC) detecting, monitoring and modeling | virtual |
| 212 | 07SEP21 | SAFEMODE workshop on risk models | virtual |
| 213 | 07-08SEP21 | CADENZA workshop on demand and capacity management in ATM | virtual |
| 214 | 08SEP21 | InterFAB ExpertTalk #6 ATM performance data - Backcasting | virtual |
| 215 | 09SEP21 | Engage KTN thematic challenge workshop - Efficient provision and use of MET information in ATM | virtual |
| 216 | 09SEP21 | EUROCONTROL Stakeholder Forum - Impact of climate change on aviation | virtual |
| 217 | 15SEP21 | Engage KTN thematic challenge workshop - Vulnerabilities and global security of the CNS/ATM system | virtual |
| 218 | 16SEP21 | EAC webinar - Decarbonising Air Transport: Acting Now for the Future | virtual |

| # | Date | Event | Where |
|-----|-----------------|---|------------------------------|
| 219 | 20SEP21 | ISOBAR 1st workshop | virtual |
| 220 | 20-24SEP21 | 14th USA/Europe ATM R&D Seminar | New Orleans, USA and virtual |
| 221 | 21SEP21 | PJ34 AURA 1st workshop | virtual |
| 222 | 20SEP21-15OCT21 | NATS Research Collaboration Conference 21 | virtual |
| 223 | 21-23SEP21 | 1st SIMS EUROSIM Conference on Modelling and Simulation (SIMS EUROSIM 2021) | Oulu, Finland |
| 224 | 21SEP21 | EUROCONTROL Stakeholder Forum - Developing U-space for Urban Air Mobility | virtual |
| 225 | 22-23SEP21 | Climate change and the role of air traffic control | Vilnius, Lithuania |
| 226 | 23SEP21 | EUROCONTROL Stakeholder Forum - Sustainable aviation fuels | virtual |
| 227 | 27SEP21-01OCT21 | EUROCONTROL-ENAIRE human factor days | virtual |
| 228 | 27SEP21 | CORUS-XUAM 1st workshop - Enabling Urban Air Mobility in Europe | virtual |
| 229 | 27-28SEP21 | OPTICS2 final dissemination event - Is European aviation safety and security research on the right track? | virtual |
| 230 | 28SEP21 | AURORA 1st stakeholder workshop | virtual |
| 231 | 28SEP21 | SESAR Digital Academy Smarter, safer and more efficient arrivals session: Smarter, safer and more efficient arrivals (part 1) | webinar |
| 232 | 07OCT21 | EUROCONTROL Stakeholder Forum - Building aviation cyber-resilience | virtual |
| 233 | 14OCT21 | Transport Research Institute 7th Annual Electric Vehicle Event (day 3) - Air Transport | virtual |
| 234 | 14OCT21 | EUROCONTROL Stakeholder Forum - How innovation and sustainability could impact global cargo operations | virtual |
| 235 | 18OCT21 | EUROCONTROL Stakeholder Forum - European air navigation charges model | virtual |

| # | Date | Event | Where |
|-----|------------|---|------------------------------|
| 236 | 21OCT21 | CAMERA final dissemination event | virtual |
| 237 | 21OCT21 | SESAR Digital Academy Smarter, safer and more efficient arrivals session: Smarter, safer and more efficient arrivals (part 2) | webinar |
| 238 | 26-27OCT21 | 31st ACI EUROPE Annual Congress and General Assembly | Geneva, Switzerland |
| 239 | 26-28OCT21 | World ATM Congress 2021 | Madrid, Spain |
| 240 | 02NOV21 | Unmanned Cargo Aircraft Conference | virtual |
| 241 | 10NOV21 | TindAIR 1st workshop | Toulouse, France and virtual |
| 242 | 16NOV21 | EUROCONTROL Air Transport Innovation Initiative Webinar | virtual |
| 243 | 17NOV21 | EUROCONTROL Stakeholder Forum - Harmonised military flight plan for Europe | virtual |
| 244 | 18NOV21 | SESAR Spotlight Event - Showcasing U-space services for medical air mobility (SAFIR-MED project) postponed due to Covid-19 | hybrid event |
| 245 | 18-19NOV21 | 9th OpenSky Symposium | Brussels, Belgium |
| 246 | 22NOV21 | EUROCONTROL Aviation Sustainability Summit | virtual |
| 247 | 23-26NOV21 | Aerospace Europe Conference 2021 (AEC-21) | Warsaw, Poland |
| 248 | 25NOV21 | BUBBLES second workshop - Presenting validation results towards an updated concept of separation management | virtual |
| 249 | 29-30NOV21 | Aviation Management and Economics Conference (AMEC): Aviation and the environment | virtual |
| 250 | 30NOV21 | SESAR PJ05-W2 - Multiple Remote Towers with dynamic allocation of aerodromes and Automatic Speech Recognition open day | Asker, Norway |
| 251 | 30NOV21 | ARTIMATION - General Assembly | Rome, Italy and virtual |

| # | Date | Event | Where |
|-----|------------|--|-------------------------------|
| 252 | 30NOV21 | European Network of U-space Stakeholders re-launch event | virtual |
| 253 | 01-02DEC21 | 9th European Aviation Conference (EAC) | virtual |
| 254 | 03DEC21 | Efficient, Connected and Sustainable Regional airports | virtual |
| 255 | 06DEC21 | EUROCONTROL Stakeholder Forum - Business aviation's flight plan to net zero | virtual |
| 256 | 06DEC21 | SESAR PJ.05-35 - Multi Remote Tower open day | virtual |
| 257 | 07DEC21 | AW-Drones final workshop - Is European aviation conquering the challenges of drones? | virtual |
| 258 | 07-08DEC21 | 11th Aviation Forum | Hamburg, Germany and virtual |
| 259 | 07-09DEC21 | SESAR Innovation Days 2021 | virtual |
| 260 | 08-09DEC21 | EUROCONTROL/CANSO Global Resilience Summit | Brussels, Belgium and virtual |
| 261 | 13-17DEC21 | AGU Fall Meeting - includes 'Convective and Volcanic Clouds (CVC) and impact on aviation management' session | New Orleans, USA and virtual |
| 262 | 14DEC21 | SINOPTICA - Meteo stakeholder meeting | virtual |
| 263 | 15DEC21 | SAFEMODE 1st dissemination workshop | virtual |
| 264 | 25JAN22 | INVIRCAT - real-time simulations for IFR RPAS integration in the TMA open day | virtual |
| 265 | 25JAN22 | SATCOM for aviation: the stakeholder perspective (introduction to aviation satellite services) | virtual |
| 266 | 02-03FEB22 | EUROCONTROL Network Manager User Forum 2022 | Brussels, Belgium and virtual |
| 267 | 08FEB22 | VOICE 1st workshop - How new space satellites can make ATM more efficient | virtual |
| 268 | 11FEB22 | SESAR PJ.05-W2-S97.1 - Augmented reality in Vitoria-Gasteiz Airport open day | virtual |

| # | Date | Event | Where |
|-----|------------|---|--|
| 269 | 14FEB22 | Modus second workshop - What could future air-rail multimodal mobility look like? | virtual |
| 270 | 15FEB22 | EASA workshop - NPA 2021-14 - AMC/GM to support the U-space regulatory framework | virtual |
| 271 | 16FEB22 | SESAR PJ05-W2 - Multiple Remote Towers with dynamic allocation of aerodromes and Automatic Speech Recognition | virtual |
| 272 | 16FEB22 | IRIS SATCOM: a system designed for aviation (overview of the Iris system) | virtual |
| 273 | 17FEB22 | EUROCONTROL Stakeholder Forum - Aeronautical spectrum: Is aviation making the best use of this scarce resource in light of recent 5G impacts? | virtual |
| 274 | 08MAR22 | ATM-UTM interface: How should separator's responsibilities be managed? | virtual |
| 275 | 14-17MAR22 | CORUS-XUAM 2nd workshop | virtual |
| 276 | 15MAR22 | SWIM workshop - Flight and Flow Information for Collaborative Environment (FF-ICE) | virtual |
| 277 | 21MAR22 | SESAR PJ.13-117 - Validation of SESAR solution for enabling RPAS insertion in controlled airspace | virtual |
| 278 | 22-23MAR22 | Clean Aviation Forum 2022 - Re-imagining Europe's path to climate-neutrality: Clean Aviation takes off | Brussels, Belgium and virtual |
| 279 | 24MAR22 | SESAR Digital Academy Unpacking SESAR's performance measurement framework | webinar |
| 280 | 25MAR22 | EUROCONTROL - How airspace closures triggered by the Ukraine crisis are impacting European aviation | virtual |
| 281 | 28MAR22 | SATCOM maturity and deployment | virtual |
| 282 | 29-30MAR22 | EASA High Level Conference on Drones | Amsterdam, The Netherlands and virtual |
| 283 | 05APR22 | SESAR PJ02-W2 Solution 21.4 - Full guidance using "Follow the Greens" procedures open day | Asker, Norway |
| 284 | 07APR22 | UAS Separation Provision Service: do we need it? Low-altitude drone self-separation | virtual |

| # | Date | Event | Where |
|-----|------------|---|---------------------------------|
| 285 | 08-09APR22 | 3rd Symposium on Aviation Research (SoAR) | Bergamo, Italy |
| 286 | 20APR22 | NOSTROMO 1st workshop | Copenhagen, Denmark and virtual |
| 287 | 20-21APR22 | ECHO 2nd workshop on Initial Validation | Brussels, Belgium |
| 288 | 28APR22 | SESAR Digital Academy Innovative solutions for ATM Resilience | webinar |
| 289 | 28-29APR22 | EUROCAE Symposium 2022 | Warsaw, Poland and virtual |
| 290 | 05MAY22 | EUROCONTROL Stakeholder Forum - Dual use of CNS infrastructure to support civil and military operations | virtual |
| 291 | 05-06MAY22 | HAAWAI 1st demo day | Reykjavik, Iceland |
| 292 | 10-11MAY22 | Urban Air Planning Forum 2022 | virtual |
| 293 | 13MAY22 | SESAR PJ04-W2-29.2 Validation of MET performance management open day | Braunschweig, Germany |
| 294 | 19MAY22 | SESAR PJ01-W2 EAD Open day on automatic controlled time of arrival (CTA) for management of arrivals in en-route and on the ground | virtual |
| 295 | 25MAY22 | AiRMOUR - What is Urban Air Mobility? An overview of the key terms and the types of aircraft | virtual |
| 296 | 02JUN22 | SAFIR-Med - Medical flight trials in Antwerp airspace | Antwerp, Belgium |
| 297 | 07-09JUN22 | ASPRID validation exercise | Madrid, Spain and virtual |
| 298 | 09-10JUN22 | 19th GARS Junior Research Workshop | Bremen, Germany and virtual |
| 299 | 13-15JUN22 | D4G-2022 - 1st workshop on data science for GNSS Remote Sensing | Potsdam, Germany |
| 300 | 14-16JUN22 | 2022 FAA-EASA International Aviation Safety Conference | Washington, USA |
| 301 | 19-23JUN22 | ICRAT 2022 - 10th International Conference for Research in Air Transportation | Tampa, USA |

| # | Date | Event | Where |
|-----|------------|--|-----------------------------|
| 302 | 21-23JUN22 | World ATM Congress 2022 | Madrid, Spain |
| 303 | 23-24JUN22 | ISOBAR Workshop on Conclusions | location TBC |
| 304 | 27-30JUN22 | Quiet Drones 2022 - 2nd International Symposium on Noise from UAVs UASs and eVTOLs | virtual |
| 305 | 28-30JUN22 | Connecting Europe Days 2022 (formerly known as TEN-T Days) | Lyon, France |
| 306 | 28JUN22 | Connecting Europe by Air – the Green Transformation (part of Connecting Europe Days 2022) | Lyon, France |
| 307 | 01JUL22 | URClearED virtual open day of the real-time simulations on the RWC concept integration | virtual |
| 308 | 06JUL22 | CREATE - Environmental and meteorological SESAR exploratory research projects: key findings workshop | Naples, Italy |
| 309 | 24-28JUL22 | 16th World Conference on Transport Research | Montréal, Canada |
| 310 | 04-09SEP22 | 33rd Congress of the International Council of the Aeronautical Sciences (ICAS 2022) | Stockholm, Sweden |
| 311 | 05-13SEP22 | Convective and Volcanic Clouds (CVC) detecting, monitoring and modeling | Nicolosi, Italy |
| 312 | 07SEP22 | CADENZA final stakeholder workshop | Brussels, Belgium |
| 313 | 12SEP22 | SINOPTICA ATM/ATC stakeholder meeting | Nicolosi, Italy and virtual |
| 314 | 15-16SEP22 | Research Workshop: Single European Sky and Resilience in European ATM | Sofia, Bulgaria |
| 315 | 16SEP22 | ACI EUROPE-SESAR webinar – Innovating for passengers during the Covid-19 recovery | virtual |
| 316 | 19-21SEP22 | European Modeling & Simulation Symposium (EMSS 2022) | Rome, Italy |
| 317 | 29SEP22 | SESAR PJ.09 & PJ.10 joint open day on dynamic airspace configuration to improve airspace utilisation | Oslo, Norway |
| 318 | 12OCT22 | SESAR 3 JU 1st Annual Conference | Brussels, Belgium |

| # | Date | Event | Where |
|-----|-----------------|--|--------------------|
| 319 | 18OCT22 | SESAR Deployment Manager workshop - ADS-B implementation | virtual |
| 320 | 18-20OCT22 | Towards Sustainable Aviation Summit (TSAS 2022) | Toulouse, France |
| 321 | 18-21OCT22 | 12th EASN International Conference | Barcelona, Spain |
| 322 | 25OCT22 | Modus final results workshop | Paris, France |
| 323 | 14-17NOV22 | Transport Research Arena (TRA2022) | Lisbon, Portugal |
| 324 | 30NOV22-01DEC22 | 10th European Aviation Conference (EAC) | Heilbronn, Germany |
| 325 | 05-08DEC22 | SESAR Innovation Days 2022 | Budapest, Hungary |
| 326 | 23-24MAR23 | 1st European_Academia @EASA conference 2023 | Cologne, Germany |

8.2 Jobs and internships publicised

103 adverts have been publicised by Engage since 2018 - initially on the website (engagektn.com/jobs-and-internships), and on the EngageWiki (wikiengagektn.com/EngageWiki:Jobs_and_internships) since 2021.

Table 12: Jobs and internships publicised

| # | Who | Position | Closing date |
|---|---------------------------------------|---|--------------|
| 1 | University of Westminster (UK) | Senior Research Fellow | 20JUL18 |
| 2 | Florence School of Regulation (Italy) | Research Assistant | 24JUL18 |
| 3 | University of Leeds (UK) | Research Fellow in Transport and Data Analysis | 03OCT18 |
| 4 | University of Leeds (UK) | Research Fellow in Transport and Spatial Data Analytics | 03OCT18 |

| # | Who | Position | Closing date |
|----|--|---|---------------|
| 5 | University of Leeds (UK) | Research Fellow in Aviation Demand | 03OCT18 |
| 6 | Nommon Solutions and Technologies (Spain) | Software Engineer (Intern) | not specified |
| 7 | Nommon Solutions and Technologies (Spain) | Data Visualisation Engineer (Intern) | not specified |
| 8 | Nommon Solutions and Technologies (Spain) | Aviation Data Scientist (Intern) | not specified |
| 9 | Nommon Solutions and Technologies (Spain) | Mobility Analytics Data Scientist (Intern) | not specified |
| 10 | SESAR Joint Undertaking secondment (Belgium) | ATM Systems Expert | 01MAR19 |
| 11 | SESAR Joint Undertaking secondment (Belgium) | Performance Expert | 01MAR19 |
| 12 | SESAR Joint Undertaking secondment (Belgium) | Senior Stakeholder Relations Expert | 01MAR19 |
| 13 | Università degli Studi di Palermo (Italy) | Postdoc position (Horizon 2020 ADAPT project) | 15MAR19 |
| 14 | Nanyang Technological University (Singapore) | Research Fellow/Senior Research Fellow | 02MAY19 |
| 15 | EUROCONTROL (Belgium) | Environmental Policy Research Trainee | 17JUL19 |
| 16 | SESAR Deployment Alliance (Belgium) | Manager and Expert profiles | not specified |
| 17 | University of Westminster (UK) | Senior Lecturer in Transport | 05SEP19 |
| 18 | University of Westminster (UK) | Research Associate (Active Travel Academy) | 05SEP19 |

| # | Who | Position | Closing date |
|----|--|---|------------------|
| 19 | SINTEF (Norway) | Postdoctoral candidates / Research scientists in “Optimization” | 30SEP19 |
| 20 | Aviation Job Expo (UK) | Hundreds of vacancies available | event on 03OCT19 |
| 21 | TU Delft (The Netherlands) | Postdoc position in Transport Safety and Human Factors | 03OCT19 |
| 22 | TU Delft (The Netherlands) | Tenure-Track Assistant Professor Transportation Systems | 15OCT19 |
| 23 | University of Surrey (UK) | Senior Lecturer in Air Transport Management | 20OCT19 |
| 24 | Aalto University (Finland) | Postdoc positions in Smart Mobility | 08NOV19 |
| 25 | Careers in Aerospace & Aviation LIVE 2019 (UK) | Employment opportunities | event on 08NOV19 |
| 26 | European Passengers’ Federation (Belgium) | Project and Policy Officer | 11NOV19 |
| 27 | Kineo Mobility Analytics (Spain) | Transport and Mobility Analytics Consultant | not specified |
| 28 | NATS (UK) | Undergraduate Placement Scheme for Engineering and Technology | 29NOV19 |
| 29 | Connected Places Catapult, formerly known as Transport Systems and Future Cities Catapult (UK) | MATSim Modeller | not specified |
| 30 | EUROCONTROL (Belgium) | Safety Management Trainee | 23DEC19 |
| 31 | EUROCONTROL Experimental Centre (France) | Researcher Trainee | 24DEC19 |
| 32 | University of Leeds (UK) | Research Fellow in Future Mobility Systems | 12JAN20 |
| 33 | University of Twente (The Netherlands) | Assistant Professor Smart Mobility | 13JAN20 |

| # | Who | Position | Closing date |
|----|--|---|---------------|
| 34 | NATS (UK) | Undergraduate Placements | 10FEB20 |
| 35 | NATS (UK) | Data Analyst Apprenticeship | 10FEB20 |
| 36 | NATS (UK) | Industrial Placements | 23FEB20 |
| 37 | Cranfield University (UK) | Lecturer/Senior Lecturer in Safety Engineering and Airworthiness | 23FEB20 |
| 38 | National Center for Atmospheric Research (USA) | Halaby Fellowship | 28FEB20 |
| 39 | Universidad Carlos III de Madrid (Spain) | 2 Postdoctoral level positions within the Aero Research Group (Artificial Intelligence and data-driven algorithms applied to Air Traffic Management and Meteo; Parallel and GPU optimization applied to Air Traffic Management) | 15MAR20 |
| 40 | Linköping University (Sweden) | Postdoc positions within the AEAR group | not specified |
| 41 | EUROCONTROL Maastricht Upper Area Control Centre (The Netherlands) | Student Air Traffic Controllers | not specified |
| 42 | Air Navigation Solutions Limited (UK) | Trainee Air Traffic Controllers | not specified |
| 43 | Nanyang Technological University (Singapore) | Research Fellow (Human Factors) | 05JUL20 |
| 44 | Nanyang Technological University (Singapore) | Research Fellow (Computer Vision) | 05JUL20 |
| 45 | University of Westminster (UK) | Senior Research Fellow (Transport Economist) | 23JUL20 |
| 46 | University of Westminster (UK) | 2 Research Fellows (Data Scientists) | 23JUL20 |
| 47 | Turing Internship Network (UK) | 10 internships | 10AUG20 |
| 48 | Innaxis (Spain) | Data Scientist | not specified |

| # | Who | Position | Closing date |
|----|--|--|------------------|
| 49 | Innaxis (Spain) | Business Development and Project Manager | not specified |
| 50 | DataBeacon (Spain) | Developers | not specified |
| 51 | Careers in Aerospace & Aviation LIVE 2020 (UK) | Employment opportunities | event on 04NOV20 |
| 52 | Leonardo (UK) | Graduate programme | not specified |
| 53 | Leonardo (UK) | Internships, placements and work experience opportunities | not specified |
| 54 | Leonardo (UK) | Apprenticeship programme | not specified |
| 55 | Think Research (UK) | Senior ATM and Airports Consultant | not specified |
| 56 | Think Research (UK) | Analytics Consultant | not specified |
| 57 | Bournemouth University (UK) | Postdoc Research Fellow (E-Drone project) | 18NOV20 |
| 58 | CONNECT! - Career day (The Netherlands) | Networking and career event | event on 18NOV20 |
| 59 | SEAL Aeronautica S.L. (Spain) | 2 Postdoc research positions | 31DEC20 |
| 60 | University of Westminster (UK) | 2 Research Positions (Transport Economics Modeller and Transport Modeller) | 28JAN21 |
| 61 | Università degli Studi di Padova (Italy) | Research Fellow | 09FEB21 |
| 62 | EUROCONTROL Experimental Centre (France) | Traineeship Opportunities | not specified |
| 63 | skeyes (Belgium) | Trainee Air Traffic Controllers | 14MAR21 |
| 64 | Factual Consulting (Spain) | EU Project Manager in Transport & Mobility | not specified |

| # | Who | Position | Closing date |
|----|--|--|---------------------|
| 65 | Institute for Cross-Disciplinary Physics and Complex Systems (Spain) | Internships Opportunities | 25APR21 |
| 66 | Universidad Carlos III de Madrid (Spain) | Assistant Professor Position | 30APR21 |
| 67 | SESAR Joint Undertaking (Belgium) | Secondment of National Expert | extended to 10MAY21 |
| 68 | Aerospace Technology Institute (UK) | Aircraft Modeller | 21MAY21 |
| 69 | ISSNOVA (Italy) | Researcher Position | not specified |
| 70 | Think Research (UK) | Analyst/Consultant in Safety and Human Factors | not specified |
| 71 | ENAC (France) | Internships within the Interactive Informatics Lab | not specified |
| 72 | Entry Point North (Sweden) | ATSEP Training Specialist | 23MAY21 |
| 73 | NATS (UK) | Operational Support | 27MAY21 |
| 74 | Università degli Studi di Padova (Italy) | Research Fellow | 24JUN21 |
| 75 | European Union Aviation Safety Agency (Germany) | Junior Qualification Programme (JQP) | 05JUL21 |
| 76 | Innaxis (Spain) | Junior Data Scientist | not specified |
| 77 | Clean Sky 2 Joint Undertaking (Belgium) | Team Leader/Project Officer | extended to 30SEP21 |
| 78 | Università degli Studi di Padova (Italy) | Research Fellow | 14SEP21 |

| # | Who | Position | Closing date |
|----|---|---|------------------|
| 79 | SESAR Joint Undertaking (Belgium) | Executive Director | 01OCT21 |
| 80 | European Union Aviation Safety Agency (Germany) | Expert positions | 01OCT21 |
| 81 | Clean Sky 2 Joint Undertaking (Belgium) | Interims | 15OCT21 |
| 82 | Clean Sky 2 Joint Undertaking (Belgium) | Trainee | 20OCT21 |
| 83 | University of Southampton (UK) | Research Fellow (Drone Logistics) | 02NOV21 |
| 84 | Careers in Aerospace & Aviation LIVE 2021 (UK) | Employment opportunities | event on 03NOV21 |
| 85 | EUROCONTROL (France) | Data Scientist Positions | 18NOV21 |
| 86 | Hasselt University (Belgium) | Researcher Position | 26NOV21 |
| 87 | EUROCONTROL (France) | Prototype Developer Positions | 01JAN22 |
| 88 | EPFL (Switzerland) | Interns, PhD student and Postdoc Fellow | not specified |
| 89 | NATS (UK) | Early Careers 22 Virtual Exhibition | 31JAN22 |
| 90 | NATS (UK) | Graduate Scheme | not specified |
| 91 | NATS (UK) | Undergraduate Placements | not specified |
| 92 | NATS (UK) | Apprenticeships | not specified |
| 93 | NATS (UK) | Internships | not specified |
| 94 | Think Research (UK) | Graduate Consultant/Analyst | not specified |

| # | Who | Position | Closing date |
|-----|--|---|---------------|
| 95 | Think Research (UK) | Senior Consultant | not specified |
| 96 | Think Research (UK) | Principal Consultant | not specified |
| 97 | Universidad Carlos III de Madrid (Spain) | Assistant Professor in Aerospace Engineering | 15JAN22 |
| 98 | Frequentis (Romania) | Programming Positions - various air traffic management/unmanned traffic management programming and software developer positions | not specified |
| 99 | EUROCONTROL (Belgium) | Communication, Navigation & Surveillance (CNS) Specialist | 27JAN22 |
| 100 | EUROCONTROL (France) | Scientific Analyst | 27JAN22 |
| 101 | University of Southampton (UK) | Research Fellow in Drone Logistics | 04FEB22 |
| 102 | IFISC (Spain) | Postdoctoral position in the ERC ARCTIC project | not specified |
| 103 | SESAR 3 Joint Undertaking (Belgium) | Grant Manager | 15MAR22 |

8.3 PhDs publicised

23 notices of PhD Calls, studentships and support have been publicised by Engage – initially on the website (engagektn.com/phd-opportunities), and later on the EngageWiki (wikiengagektn.com/EngageWiki:PhD_funding_opportunities).

Table 13: PhDs publicised

| # | Who | PhD | Closing date |
|---|--|--|---|
| 1 | EUROCONTROL | Call for PhDs (18-220569-A) | 08FEB19 |
| 2 | Universidad Politécnica de Madrid and Tadorea (Spain) | PhD in Cryptography | Q1 2019 start date |
| 3 | Technical University of Denmark | PhD in Machine Learning and Transport | 10SEP19 |
| 4 | EUROCONTROL | Call for PhDs (19-220468-A) | 27SEP19 |
| 5 | National University of Singapore | PhD Research Scholarship in Airport Infrastructure, Automation and Labour | 27SEP19 (JAN20 start date), potentially extending to 01NOV19 (AUG20 start date) |
| 6 | Future Aviation Security Solutions Industrial PhD Partnership (FASS IPP) | Studentships | 08JAN20 |
| 7 | Molde University College (Norway) | PhD Scholarship Position in Transport Economics or other specializations within Logistics | 20JAN20 |
| 8 | Molde University College (Norway) | PhD Scholarship Position in public sector productivity change and the effect of reduced transport cost | 20JAN20 |
| 9 | Universidad Carlos III de Madrid (Spain) | 3 PhD positions within the Aero Research Group (Aircraft Trajectory Optimization and Climate Change; Artificial Intelligence and data-driven algorithms applied to Air | 15MAR20 |

| # | Who | PhD | Closing date |
|----|--|--|---|
| | | Traffic Management and Meteo; Parallel and GPU optimization applied to Air Traffic Management) | |
| 10 | Technical University of Denmark | PhD position in the Machine Learning for Smart Mobility group | 01APR20 |
| 11 | University of Stavanger (Norway) | PhD position in the Faculty of Science and Technology | 30OCT20 |
| 12 | Linköping University (Sweden) | PhD positions within the AEAR group | not specified |
| 13 | IFISC (Spain) | PhD position in the ERC ARCTIC project | not specified |
| 14 | Bournemouth University (UK) | PhD position in EPSRC-funded UAV project | 13JAN21 |
| 15 | Bournemouth University (UK) | PhD position in UKRI-funded UAV project | 21FEB21 |
| 16 | Alianza 4 Universidades/4 Universities Alliance (Spain) | Travel grants | 12MAR21 for PhD students/staff and 09APR21 for Bachelor and Master students |
| 17 | Technical University of Delft (The Netherlands) | PhD position in the Aerospace Engineering Faculty | not specified |
| 18 | Institute for Cross-Disciplinary Physics and Complex Systems (Spain) | Travel grants | various closing dates |
| 19 | ENAC (France) | PhD positions within the Interactive Informatics Lab | not specified |
| 20 | De Montfort University Leicester (UK) | industrial PhD studentship | extended to 30JUN21 |
| 21 | Cranfield University (UK) | Persistent Decoy Teams with AI | extended to 15OCT21 |
| 22 | University of Southampton (UK) | Human Factors relating to the handover of control between pilot and UAV | 31MAR22 |

| # | Who | PhD | Closing date |
|----|--|--|---------------|
| 23 | Universidad Carlos III de Madrid (Spain) | PhD positions in Aerospace Engineering | not specified |

8.4 Other Calls publicised

Since March 2021, 22 Calls and opportunities (outside Engage) have been publicised on the Engage website (engagektn.com/call-opportunities).

Table 14: Other Calls publicised

| | What | Detail | Closing date |
|---|-----------------------------------|---|--|
| 1 | Other Call | EUROCONTROL Air Transport Innovation Hub - Call for operational challenges/needs | 26MAR21 |
| 2 | Call for extended Abstracts | International Transport Forum Pre-Summit Research (11-12MAY21, virtual event) | 29MAR21 (abstracts) |
| 3 | Call for Papers | 14th USA/Europe ATM R&D Seminar (20-24SEP21, New Orleans, USA) | 19APR21 (papers) |
| 4 | Call for Papers | Climate change and the role of air traffic control (22-23SEP21, Vilnius, Lithuania) | 30APR21 (abstracts); 31AUG21 (papers) |
| 5 | Contest project for students | How to promote STEM careers among the youngest generation? (1st CEAS Women in Aerospace Conference, 25JUN21) | 20JUN21 |
| 6 | Call for Contributions | AGU Fall Meeting session A040 'Convective and Volcanic Clouds (CVC) and impact on aviation management' (13-17DEC21, New Orleans, USA and virtual event) | 04AUG21 |
| 7 | Call for Contributions | Aviation Management and Economics Conference (29-30NOV21, virtual event) | 01SEP21 (abstracts); 15NOV21 (papers) |
| 8 | Call for Proposals | KTN (UK) Future flight challenge phase 3: two strands - demonstration and cross-cutting technologies | 03NOV21 |
| 9 | Call for Presentations and Papers | 9th OpenSky Symposium (18-19NOV21, Brussels, Belgium) | 03SEP21 (abstracts); 12NOV21 (papers) |

| | What | Detail | Closing date |
|----|----------------------------------|---|--|
| 10 | Call for Contributions | 11th SESAR Innovation Days conference (07-09DEC21, virtual event) | extended to 30SEP21 (posters/exhibits); extended to 11OCT21 (papers) |
| 11 | Call for Papers | 3rd Symposium on Aviation Research (08-09APR22, Bergamo, Italy) | 19DEC21 (abstracts) |
| 12 | Call for Expressions of Interest | Clean Aviation JU Scientific Advisory Body | 05JAN22 |
| 13 | Call for Proposals | Pilot Digital Sky Demonstrators | 19JAN22 |
| 14 | Call for Papers | 19th GARS Junior Research Workshop (09-10JUN22, Bremen, Germany and virtual) | 24APR22 (abstracts); 22MAY22 (papers) |
| 15 | Call for Papers | 10th International Conference for Research in Air Transportation (19-23JUN22, Tampa, Florida) | 13FEB22 (Doctoral Symposium and Technical papers) |
| 16 | Call for Papers | 33rd Congress of the International Council of the Aeronautical Sciences (04-09SEP22, Stockholm, Sweden) | 10FEB22 (abstracts); 01JUN22 (papers) |
| 17 | Call for Papers | Research Workshop: Single European Sky and Resilience in European ATM (15-16SEP22, Sofia, Bulgaria) | 11MAR22 (abstracts); 12AUG22 (papers) |
| 18 | Call for Proposals | 1st Calls of the SESAR 3 Digital European Sky programme | 13OCT22 |
| 19 | Call for Papers | Towards Sustainable Aviation Summit (18-20OCT22, Toulouse, France) | extended to 20JUN22 (abstracts); extended to 15SEP22 (papers) |
| 20 | Call for Abstracts | 12th EASN International Conference (18-21OCT22, Barcelona, Spain) | 15JUN22 (abstracts) |
| 21 | Call for Contributions | 12th SESAR Innovation Days conference (05-08DEC22, Budapest, Hungary) | 15SEP22 (posters/exhibits); 30SEP22 (papers) |
| 22 | Call for Abstracts | European_Academia @EASA conference 2023 (23-24MAR23, Cologne, Germany) | 30SEP22 (abstracts) |

8.5 Competitions, awards and opportunities publicised

Competitions, awards and other opportunities relevant to the ATM research community have also been publicised on the Engage events page [2].

Table 15: Competitions, awards and opportunities publicised

| # | What | Closing date |
|----|--|---------------------|
| 1 | SESAR Young Scientist Award 2018 | 05SEP18 |
| 2 | SESAR Young Scientist Award 2019 | 06SEP19 |
| 3 | AGIFORS Anna Valicek Award 2020 | 01JUN20 |
| 4 | SESAR Young Scientist Award 2020 | 06SEP20 |
| 5 | SESAR Digital European Sky Awards 2021 | 30APR21 |
| 6 | SESAR Young Scientist Award 2021 | 05SEP21 |
| 7 | European Startup Prize for Mobility 4th Edition - 'Future Skies' prize | 30NOV21 |
| 8 | Horizon Impact Award 2022 | extended to 06APR22 |
| 9 | 2022 Maverick Awards | extended to 04MAY22 |
| 10 | TRA VISIONS 2022 Young Researcher Competition | extended to 31MAY22 |
| 11 | TRA VISIONS 2022 Senior Researcher Competition | extended to 13JUN22 |
| 12 | SESAR Young Scientist Award 2022 | 04SEP22 |

9 Appendix III

This appendix logs outputs presented and published by PhDs and catalyst fund projects (third parties supported through Engage). Note that planned or submitted output is excluded from the following tables.

9.1 PhD outputs

Table 16: PhD outputs

| # | Who | Output | Event | Date | Further information |
|---|---|------------------|---|-----------------|--|
| 1 | P1. Decision support system for airline operation control hub centre ('DiSpAtCH') | Presentation | Summer school 2019 | 09-13SEP19 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 2 | P1. Decision support system for airline operation control hub centre ('DiSpAtCH') | Conference paper | 9th International Conference for Research in Air Transportation (ICRAT) | 15SEP20 | Doctoral Symposium: Paper 13 "Decision Support System for Airline Operation Control Hub Centre (DiSpAtCH) - Initial research results and developed framework" - https://www.icrat.org/previous-conferences/9th-international-conference/papers/ (paper: https://drive.google.com/file/d/1uW-tUmcMYUW7zf9OANH-TJQkBMJGoDFe/view ; video: https://www.youtube.com/watch?v=UDWjo9-uMnY) |
| 3 | P1. Decision support system for airline operation control hub centre ('DiSpAtCH') | Presentation | Summer school 2020 | 21-25SEP20 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 4 | P1. Decision support system for airline operation control hub | Presentation | Summer school 2021 | 30AUG21-02SEP21 | "Decision support tool for airline operation control hub centre" - https://engagektn.com/summer-school-2021/ |

| # | Who | Output | Event | Date | Further information |
|---|--|--|---|----------------|--|
| | centre ('DiSpAtCH') | | | | |
| 5 | P1. Decision support system for airline operation control hub centre ('DiSpAtCH') | Poster | 11th SESAR Innovation Days (SIDs 2021) | 07-09DEC21 | Poster - https://www.sesarju.eu/sites/default/files/documents/sid/2021/posters/SIDs%202021%20poster%20dispatch.pdf |
| 6 | P1. Decision support system for airline operation control hub centre ('DiSpAtCH') | Report | Decision support system for airline operation control hub centre ('DiSpAtCH') | 18AUG22 | PhD final report - https://engagektn.com/phd-abstracts/ |
| 7 | P2. Trajectory planning for conflict-free trajectories: a multi agent reinforcement learning approach (RL4CFTP) | Presentation | Summer school 2019 | 09-13SEP19 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 8 | P2. Trajectory planning for conflict-free trajectories: a multi agent reinforcement learning approach (RL4CFTP) | Presentation | TC2(2) workshop | 02DEC19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| - | <i>P2. Trajectory planning for conflict-free trajectories: a multi agent reinforcement learning approach (RL4CFTP)</i> | <i>Article (duplicate – see Table 17, #18)</i> | <i>arXiv</i> | <i>16MAY20</i> | <i>eprint in collaboration with C4. Data-driven trajectory imitation with reinforcement learning project, arXiv:2005.07960, 2020 "Data Driven Aircraft Trajectory Prediction with Deep Imitation Learning" - https://arxiv.org/abs/2005.07960</i> |
| 9 | P2. Trajectory planning for conflict-free trajectories: a | Presentation | Summer school 2020 | 21-25SEP20 | (unpublished by agreement with PhD candidates - refer to summer |

| # | Who | Output | Event | Date | Further information |
|----|---|--------------|---|-----------------|--|
| | multi agent reinforcement learning approach (RL4CFTP) | | | | school 2021 presentation instead) |
| 10 | P2. Trajectory planning for conflict-free trajectories: a multi agent reinforcement learning approach (RL4CFTP) | Presentation | Summer school 2021 | 30AUG21-02SEP21 | "Trajectory planning for conflict free trajectories: a multi agent reinforcement learning approach" - https://engagektn.com/summer-school-2021/ |
| 11 | P2. Trajectory planning for conflict-free trajectories: a multi agent reinforcement learning approach (RL4CFTP) | Article | arXiv | 19MAY22 | eprint, arXiv:2205.09539 "Data-driven prediction of Air Traffic Controllers reactions to resolving trajectory conflicts" - https://arxiv.org/abs/2205.09539 |
| 12 | P2. Trajectory planning for conflict-free trajectories: a multi agent reinforcement learning approach (RL4CFTP) | Report | Trajectory planning for conflict-free trajectories: a multi agent reinforcement learning approach | 29JUN22 | PhD final report - https://engagektn.com/phd-abstracts/ |
| 13 | P3. Detection, classification, identification and mitigation of GNSS signal degradations by means of machine learning | Presentation | Summer school 2019 | 09-13SEP19 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 14 | P3. Detection, classification, identification and mitigation of GNSS signal degradations by means of | Article | arXiv | 06NOV19 | eprint, arXiv:1911.02347, 2019 "Convolutional Neural Network for Multipath Detection in GNSS Receivers" - https://arxiv.org/abs/1911.02347 |

| # | Who | Output | Event | Date | Further information |
|----|---|------------------|---|------------|---|
| | machine learning | | | | |
| 15 | P3. Detection, classification, identification and mitigation of GNSS signal degradations by means of machine learning | Conference paper | International Navigation Conference 2019 | 18-21NOV19 | Session A1: Paper A1.1 "Multipath detection at GNSS correlator output using image processing by convolutional neural network" - https://rin.org.uk/mpage/INC2019_Programme#dropdown32 |
| 16 | P3. Detection, classification, identification and mitigation of GNSS signal degradations by means of machine learning | Presentation | International Conference on Artificial Intelligence and Data Analytics for Air Transportation (AIDA-AT/IEEE Computational Intelligence Society) | 03-04FEB20 | Technical Session 4: Paper 8 "Multipath detection at GNSS correlator output using Convolutional Neural Networks" - http://event.ntu.edu.sg/AIDAAT2020/Pages/agenda.aspx |
| 17 | P3. Detection, classification, identification and mitigation of GNSS signal degradations by means of machine learning | Presentation | Summer school 2020 | 21-25SEP20 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 18 | P3. Detection, classification, identification and mitigation of GNSS signal degradations by means of machine learning | Presentation | Institute of Navigation conference GNSS+ 2020 | 22-25SEP20 | Session C4: Machine Learning in Location "GNSS multipath detection using embedded deep CNN on Intel® Neural Compute Stick" - https://hal-enac.archives-ouvertes.fr/hal-02964023 |
| 19 | P3. Detection, classification, identification and mitigation of GNSS signal degradations by means of machine learning | Code | GitHub | 23MAR21 | "A Python code for GNSS signal generator" - http://github.com/EvgeniiMunin/gnss_signal_generator |

| # | Who | Output | Event | Date | Further information |
|----|---|------------------|---|------------|--|
| 20 | P3. Detection, classification, identification and mitigation of GNSS signal degradations by means of machine learning | Code | GitHub | 11FEB22 | "A synthetic GNSS correlator output generator" - https://github.com/AntoineBlaisENAC/Synthetic_GNSS_Correlator_Output_Generator.git |
| 21 | P3. Detection, classification, identification and mitigation of GNSS signal degradations by means of machine learning | Journal article | Array, Vol. 14 | 12APR22 | "A novel image representation of GNSS correlation for deep learning multipath detection" - https://doi.org/10.1016/j.array.2022.100167 |
| 22 | P3. Detection, classification, identification and mitigation of GNSS signal degradations by means of machine learning | Report | Detection, classification, identification and mitigation of GNSS signal degradations by means of machine learning | 25JUL22 | PhD final report - https://engagektn.com/phd-abstracts/ |
| 23 | P4. Machine learning techniques for seamless traffic demand prediction | Presentation | Summer school 2019 | 09-13SEP19 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 24 | P4. Machine learning techniques for seamless traffic demand prediction | Presentation | TC2(2) workshop | 02DEC19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 25 | P4. Machine learning techniques for seamless traffic demand prediction | Poster | 9th SESAR Innovation Days (SIDs 2019) | 02-05DEC19 | Poster - https://www.sesarju.eu/sites/default/files/documents/sid/2019/posters/Roll%20up%20SIDs%202019-12%20red.pdf |
| 26 | P4. Machine learning techniques for | Conference paper | 9th International Conference for | 15SEP20 | Automation and Air Vehicle Integration: Paper 19 "Full-scale pre-tactical route prediction: |

| # | Who | Output | Event | Date | Further information |
|----|--|------------------|---|-----------------|---|
| | seamless traffic demand prediction | | Research in Air Transportation (ICRAT) | | Machine Learning to increase pre-tactical demand forecast accuracy" - https://www.icrat.org/previous-conferences/9th-international-conference/papers/ (paper: https://drive.google.com/file/d/1lc5r6T126ZdPzgl5BUQTKYgyPy_Dm6di/view) |
| 27 | P4. Machine learning techniques for seamless traffic demand prediction | Presentation | Summer school 2020 | 21-25SEP20 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 28 | P4. Machine learning techniques for seamless traffic demand prediction | Conference paper | 10th SESAR Innovation Days (SIDs 2020) | 07-10DEC20 | Paper 62: "Predicting Requested Flight Levels with Machine Learning" - https://www.sesarju.eu/sites/default/files/documents/sid/2020/papers/SIDs_2020_paper_62red.pdf |
| 29 | P4. Machine learning techniques for seamless traffic demand prediction | Presentation | TC2(3) workshop | 25JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 30 | P4. Machine learning techniques for seamless traffic demand prediction | Presentation | Summer school 2021 | 30AUG21-02SEP21 | "Machine learning techniques for seamless traffic demand prediction" - https://engagektn.com/summer-school-2021/ |
| 31 | P4. Machine learning techniques for seamless traffic demand prediction | Conference paper | 11th SESAR Innovation Days (SIDs 2021) | 07-09DEC21 | Paper 58: "Unveiling Airline Preferences for Pre-tactical Route Forecast through Machine Learning" - https://www.sesarju.eu/sites/default/files/documents/sid/2021/papers/SIDs_2021_paper_58.pdf |
| 32 | P4. Machine learning techniques for seamless traffic demand prediction | Report | Machine learning for aircraft trajectory prediction: a solution for pre-tactical air traffic flow and | 21JUL22 | PhD final report - https://engagektn.com/phd-abstracts/ |

| # | Who | Output | Event | Date | Further information |
|----|--|------------------|---------------------------------------|-----------------|---|
| | | | capacity management | | |
| 33 | P5. Machine learning applications to extend AGENT's conflict resolution capabilities | Presentation | Summer school 2019 | 09-13SEP19 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 34 | P5. Machine learning applications to extend AGENT's conflict resolution capabilities | Presentation | TC2(2) workshop | 02DEC19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 35 | P5. Machine learning applications to extend AGENT's conflict resolution capabilities | Conference paper | 9th SESAR Innovation Days (SIDs 2019) | 02-05DEC19 | Paper 82: "Strategies to Mitigate Tight Spatial Bounds Between Conflicts in Dense Traffic Situations" - https://www.sesarju.eu/sites/default/files/documents/sid/2019/papers/SIDs_2019_paper_82.pdf |
| 36 | P5. Machine learning applications to extend AGENT's conflict resolution capabilities | Presentation | Summer school 2020 | 21-25SEP20 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 37 | P5. Machine learning applications to extend AGENT's conflict resolution capabilities | Presentation | TC2(3) workshop | 25JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 38 | P5. Machine learning applications to extend AGENT's conflict | Presentation | Summer school 2021 | 30AUG21-02SEP21 | "Machine learning applications to extend AGENT's conflict resolution capabilities" - https://engagektn.com/summer-school-2021/ |

| # | Who | Output | Event | Date | Further information |
|----|--|------------------|---|------------|---|
| | resolution capabilities | | | | |
| 39 | P5. Machine learning applications to extend AGENT's conflict resolution capabilities | Conference paper | 14th USA/Europe Air Traffic Management Research and Development Seminar (ATM2021) | 20-24SEP21 | Paper 72: "Towards conflict resolution with deep multi-agent reinforcement learning" (awarded the Best Paper Award in the Separation track) - https://drive.google.com/file/d/1-dpSGiqEjiXXix5fGWLrabT8FrWhls4h/view |
| 40 | P5. Machine learning applications to extend AGENT's conflict resolution capabilities | Journal article | Aerospace, Vol. 8 | 25NOV21 | "Spatiotemporal Graph Indicators for Air Traffic Complexity Analysis" - https://www.mdpi.com/2226-4310/8/12/364 |
| 41 | P5. Machine learning applications to extend AGENT's conflict resolution capabilities | Journal article | Applied Sciences, Vol. 12 | 09JAN22 | "Multi-UAV Conflict Resolution with Graph Convolutional Reinforcement Learning" - https://www.mdpi.com/2076-3417/12/2/610 |
| 42 | P5. Machine learning applications to extend AGENT's conflict resolution capabilities | Journal article | IEEE Access, Vol. 10, pp. 68365-68383 | 24JUN22 | "Quantifying Well Clear for autonomous small UAS" - https://doi.org/10.1109/ACCESS.2022.3186025 |
| 43 | P5. Machine learning applications to extend AGENT's conflict resolution capabilities | Conference paper | First International Conference on Hybrid Human-Machine Intelligence (HHAI 2022) | 13-17JUL22 | Paper 51: "Does Personalization Help? Predicting How Social Situations Affect Personal Values" - https://www.hhai-conference.org/wp-content/uploads/2022/06/hhai-2022_paper_51.pdf |
| 44 | P5. Machine learning applications to extend AGENT's conflict | Report | Deep Multi-Agent Reinforcement Learning | 19AUG22 | PhD final report - https://engagektn.com/phd-abstracts/ |

| # | Who | Output | Event | Date | Further information |
|----|---|------------------|--|------------|--|
| | resolution capabilities | | Applications in ATM | | |
| 45 | P6. Integrating weather prediction models into ATM planning ('IWA') | Conference paper | 38th Digital Avionics Systems Conference (DASC 2019) | 08-12SEP19 | Terminal Operations 1: "Evaluation of Flight Efficiency for Stockholm Arlanda Airport Arrivals" - https://weber.itn.liu.se/~tatpo46/pps/DASC2019.pdf |
| 46 | P6. Integrating weather prediction models into ATM planning ('IWA') | Presentation | Summer school 2019 | 09-13SEP19 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 47 | P6. Integrating weather prediction models into ATM planning ('IWA') | Conference paper | EIWAC workshop | 29-31OCT19 | Session 1/ATM Performance 1 "[EN-A-31] Analysis of Weather Impact on Flight Efficiency for Stockholm Arlanda Airport Arrivals" - https://www.enri.go.jp/eiwac/eiwac_2019_eng.html |
| 48 | P6. Integrating weather prediction models into ATM planning ('IWA') | Presentation | TC3(2) workshop | 05NOV19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 49 | P6. Integrating weather prediction models into ATM planning ('IWA') | Conference paper | 7th OpenSky Workshop 2019 | 21-22NOV19 | Session 1 Flight Data Evaluation & Experiences "Evaluation of Flight Efficiency for Stockholm Arlanda Airport using OpenSky Network Data" - T. Polishchuk, A. Lemetti, R. Sáez. Evaluation of Flight Efficiency for Stockholm Arlanda Airport using OpenSky Network Data. In Proceedings of the 7th OpenSky Workshop 2019, vol 67, pages 13-24, Zurich. doi: https://easychair.org/publications/paper/hk2Q |
| 50 | P6. Integrating weather prediction models into ATM planning ('IWA') | Presentation | TC2(2) workshop | 02DEC19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 51 | P6. Integrating weather | Conference paper | 9th International | 15SEP20 | Trajectory Management and Optimization: Paper 12 |

| # | Who | Output | Event | Date | Further information |
|----|---|------------------|---|------------|---|
| | prediction models into ATM planning ('IWA') | | Conference for Research in Air Transportation (ICRAT) | | "Morphing STARS vs drones and weather in TMA" - https://www.icrat.org/previous-conferences/9th-international-conference/papers/ (paper: https://drive.google.com/file/d/1bb3Z6WfqTdVz2MnFZDn5-2iQi29ungid/view) |
| 52 | P6. Integrating weather prediction models into ATM planning ('IWA') | Conference paper | 9th International Conference for Research in Air Transportation (ICRAT) | 15SEP20 | System Performance: Paper 18 "Identification of Significant Impact Factors on Arrival Flight Efficiency within TMA" - https://www.icrat.org/previous-conferences/9th-international-conference/papers/ (paper: https://drive.google.com/file/d/1tYS20MsZM1CGiz0XD4EtQddHc02WH2QS/view) |
| 53 | P6. Integrating weather prediction models into ATM planning ('IWA') | Presentation | Summer school 2020 | 21-25SEP20 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 54 | P6. Integrating weather prediction models into ATM planning ('IWA') | Conference paper | 10th SESAR Innovation Days (SIDs 2020) | 07-10DEC20 | Paper 43: "Integrating Weather Impact in RTC Staff Scheduling" - https://www.sesarju.eu/sites/default/files/documents/sid/2020/papers/SIDs_2020_paper_43red.pdf |
| 55 | P6. Integrating weather prediction models into ATM planning ('IWA') | Conference paper | 10th SESAR Innovation Days (SIDs 2020) | 07-10DEC20 | Paper 71: "Arrival Flight Efficiency in Numbers: What New the Covid-19 Crisis is Bringing to the Picture?" - https://www.sesarju.eu/sites/default/files/documents/sid/2020/papers/SIDs_2020_paper_71red.pdf |
| 56 | P6. Integrating weather prediction models into ATM planning ('IWA') | Presentation | TC3(3) workshop | 27JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 57 | P6. Integrating weather prediction models into | Book chapter | Selected Papers of the 6th ENRI International Workshop on ATM/CNS | 2021 | "Analysis of Weather Impact on Flight Efficiency for Stockholm Arlanda Airport Arrivals" in Air Traffic Management and Systems IV (ISBN 978-981-334-669-7) - |

| # | Who | Output | Event | Date | Further information |
|----|--|------------------|---|-----------------|--|
| | ATM planning ('IWA') | | (EIWAC workshop 2019) | | https://www.springer.com/gp/book/9789813346680 |
| 58 | P6. Integrating weather prediction models into ATM planning ('IWA') | Presentation | Summer school 2021 | 30AUG21-02SEP21 | "Integrating weather prediction models into ATM planning" - https://engagektn.com/summer-school-2021/ |
| 59 | P6. Integrating weather prediction models into ATM planning ('IWA') | Journal article | EURO Journal on Transportation and Logistics, Vol. 11 | 31MAR22 | "Integrating weather impact in air traffic controller shift scheduling in remote and conventional towers" - https://doi.org/10.1016/j.ejtl.2022.100076 |
| 60 | P6. Integrating weather prediction models into ATM planning ('IWA') | Report | Integrating weather prediction models into ATM planning ('IWA') | 24MAY22 | PhD final report - https://engagektn.com/phd-abstracts/ |
| 61 | P7. Advanced statistical signal processing for next generation trajectory prediction | Presentation | Summer school 2019 | 09-13SEP19 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 62 | P7. Advanced statistical signal processing for next generation trajectory prediction | Presentation | TC2(2) workshop | 02DEC19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 63 | P7. Advanced statistical signal processing for next generation trajectory prediction | Conference paper | 9th International Conference for Research in Air Transportation (ICRAT) | 15SEP20 | Doctoral Symposium: Paper 48 "Advanced Statistical Signal Processing for Next Generation Trajectory Prediction" - https://www.icrat.org/previous-conferences/9th-international-conference/papers/ (paper: https://drive.google.com/file/d/1LCRm7FKcamp11QKRBMUUm204b9jVI3H8/view ; video: https://youtu.be/HOxqL9z8vlw) |

| # | Who | Output | Event | Date | Further information |
|----|--|------------------|--|-----------------|---|
| 64 | P7. Advanced statistical signal processing for next generation trajectory prediction | Presentation | Summer school 2020 | 21-25SEP20 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 65 | P7. Advanced statistical signal processing for next generation trajectory prediction | Conference paper | 54th Asilomar Conference on Signals, Systems, and Computers 2020 | 02-05NOV20 | Session D10: Machine Learning Algorithms "[TH2-5-1] On Parametric Model Mismatch in Nonlinear EKF Approximations" - https://www2.securecms.com/Asilomar2020/Papers/ViewPapers_MS.asp?PaperNum=1175 (paper: https://upcommons.upc.edu/handle/2117/341216) |
| 66 | P7. Advanced statistical signal processing for next generation trajectory prediction | Conference paper | 10th SESAR Innovation Days (SIDs 2020) | 07-10DEC20 | Paper 79: "Real-time Identification of High-Lift Devices Deployment in Aircraft Descents - An Interacting Multiple Model Filtering Application Validated with Simulated Trajectories" - https://www.sesarju.eu/sites/default/files/documents/sid/2020/papers/SIDs_2020_paper_79red.pdf |
| 67 | P7. Advanced statistical signal processing for next generation trajectory prediction | Presentation | TC2(3) workshop | 25JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 68 | P7. Advanced statistical signal processing for next generation trajectory prediction | Presentation | Summer school 2021 | 30AUG21-02SEP21 | "Advanced statistical signal processing for next generation trajectory prediction" - https://engagektn.com/summer-school-2021/ |
| 69 | P7. Advanced statistical signal processing for next generation | Conference paper | 14th USA/Europe Air Traffic Management Research and Development | 20-24SEP21 | Paper 44: "A fast and flexible emergency trajectory generator" - https://drive.google.com/file/d/1xTYmc9Ls94n4WFKL7g_IDG7gbYR5GK3h/view |

| # | Who | Output | Event | Date | Further information |
|----|---|------------------|--|------------|---|
| | trajectory prediction | | Seminar (ATM2021) | | |
| 70 | P7. Advanced statistical signal processing for next generation trajectory prediction | Conference paper | 40th Digital Avionics Systems Conference (DASC 2021) | 03-07OCT21 | "Generation of Emergency Trajectories Based on Aircraft Trajectory Prediction" - https://doi.org/10.1109/DASC52595.2021.9594403 |
| 71 | P7. Advanced statistical signal processing for next generation trajectory prediction | Report | Advanced statistical signal processing for next generation trajectory prediction | 05JUL22 | PhD final report - https://engagektn.com/phd-abstracts/ |
| 72 | P8. A pilot/dispatcher support tool based on the enhanced provision of thunderstorm forecasts considering its inherent uncertainty ('STORMY') | Presentation | Summer school 2019 | 09-13SEP19 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 73 | P8. A pilot/dispatcher support tool based on the enhanced provision of thunderstorm forecasts considering its inherent uncertainty ('STORMY') | Conference paper | EIWAC workshop | 29-31OCT19 | Session 14/Trajectory Management 2 "[EN-A-19] Scenario Based RRT for Aircraft Trajectory Planning under Uncertain Thunderstorm Development" - https://www.enri.go.jp/eiwac/eiwac_2019_eng.html |
| 74 | P8. A pilot/dispatcher support tool based on the enhanced provision of thunderstorm | Presentation | TC3(2) workshop | 05NOV19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |

| # | Who | Output | Event | Date | Further information |
|----|---|------------------|--|------------|---|
| | forecasts considering its inherent uncertainty ('STORMY') | | | | |
| 75 | P8. A pilot/dispatcher support tool based on the enhanced provision of thunderstorm forecasts considering its inherent uncertainty ('STORMY') | Presentation | Summer school 2020 | 21-25SEP20 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 76 | P8. A pilot/dispatcher support tool based on the enhanced provision of thunderstorm forecasts considering its inherent uncertainty ('STORMY') | Conference paper | 10th SESAR Innovation Days (SIDs 2020) | 07-10DEC20 | Paper 49: "GPU-Accelerated RRT for Flight Planning Considering Ensemble Forecasting of Thunderstorms" - https://www.sesarju.eu/sites/default/files/documents/sid/2020/papers/SIDs_2020_paper_49red.pdf |
| 77 | P8. A pilot/dispatcher support tool based on the enhanced provision of thunderstorm forecasts considering its inherent uncertainty ('STORMY') | Presentation | TC2(3) workshop | 25JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 78 | P8. A pilot/dispatcher support tool based on the enhanced provision of thunderstorm forecasts considering its | Presentation | TC3(3) workshop | 27JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |

| # | Who | Output | Event | Date | Further information |
|----|---|-----------------|---|-----------------|--|
| | inherent uncertainty ('STORMY') | | | | |
| 79 | P8. A pilot/dispatcher support tool based on the enhanced provision of thunderstorm forecasts considering its inherent uncertainty ('STORMY') | Journal article | Transportation Research Part C: Emerging Technologies, Vol. 129 | 02JUL21 | "Informed Scenario-Based RRT* for Aircraft Trajectory Planning under Ensemble Forecasting of Thunderstorms" - https://doi.org/10.1016/j.trc.2021.103232 |
| 80 | P8. A pilot/dispatcher support tool based on the enhanced provision of thunderstorm forecasts considering its inherent uncertainty ('STORMY') | Presentation | Summer school 2021 | 30AUG21-02SEP21 | "STORMY: a pilot support tool based on the enhanced provision of thunderstorm forecasts considering its inherent uncertainty" - https://engagektn.com/summer-school-2021/ |
| 81 | P8. A pilot/dispatcher support tool based on the enhanced provision of thunderstorm forecasts considering its inherent uncertainty ('STORMY') | Book chapter | Selected Papers of the 6th ENRI International Workshop on ATM/CNS (EIWAC workshop 2019) | 2021 | "RRT*-Based Algorithm for Trajectory Planning Considering Probabilistic Weather Forecasts" in Air Traffic Management and Systems IV (ISBN 978-981-334-669-7) - https://www.springer.com/gp/book/9789813346680 |
| 82 | P8. A pilot/dispatcher support tool based on the enhanced provision of thunderstorm forecasts considering its inherent | Report | STORMY: A pilot/dispatcher support tool based on the enhanced provision of thunderstorm forecasts considering its | 14JUL22 | PhD final report - https://engagektn.com/phd-abstracts/ |

| # | Who | Output | Event | Date | Further information |
|----|---|------------------|---|-----------------|---|
| | uncertainty ('STORMY') | | inherent uncertainty | | |
| 83 | P9. Second generation agent-based modelling for improving APOC operations | Presentation | TC4(2) workshop | 12NOV19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 84 | P9. Second generation agent-based modelling for improving APOC operations | Conference paper | 9th International Conference for Research in Air Transportation (ICRAT) | 15SEP20 | Doctoral Symposium: Paper 40 "Modelling and Simulation of APOC Operations" - https://www.icrat.org/previous-conferences/9th-international-conference/papers/ (paper: https://drive.google.com/file/d/1MoB57uOI8RhcTw1C7oXyYOi2F3J_5R7k/view ; video: https://www.youtube.com/watch?v=GZEgZD49Ns) |
| 85 | P9. Second generation agent-based modelling for improving APOC operations | Conference paper | 32nd European Modeling & Simulation Symposium (EMSS 2020) | 16-18SEP20 | "Improvement of APOC Operations by using Simulation and Experimental Economics: Conceptual Approach" - https://dx.doi.org/10.46354/i3m.2020.emss.029 |
| 86 | P9. Second generation agent-based modelling for improving APOC operations | Presentation | Summer school 2020 | 21-25SEP20 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 87 | P9. Second generation agent-based modelling for improving APOC operations | Presentation | Summer school 2021 | 30AUG21-02SEP21 | "Second generation agent-based modelling for improving APOC operations" - https://engagektn.com/summer-school-2021/ |
| 88 | P9. Second generation agent-based modelling for improving APOC operations | Report | Second generation agent-based modelling for improving APOC operations | 13JUL22 | PhD final report - https://engagektn.com/phd-abstracts/ |

| # | Who | Output | Event | Date | Further information |
|----|--|------------------|---|------------|--|
| 89 | P10. Stochastic control of tactical airline operations in hub airport networks | Working paper | Operations Research 2019 (OR2019) | 03-06SEP19 | WB-10 Airport Ground Operations "A Microscopic Control Method for Aircraft Turnaround Operations Running in Parallel at Busy Hub-Airports" - https://www.euro-online.org/conferences/program/#session/84 (abstract only, under Wednesday, 11:00-12:40) |
| 90 | P10. Stochastic control of tactical airline operations in hub airport networks | Working paper | Operations Research 2019 (OR2019) | 03-06SEP19 | WB-10 Airport Ground Operations "Coping with uncertainties in predicting the aircraft turnaround time holding at busy airports" - https://www.euro-online.org/conferences/program/#session/84 (abstract only, under Wednesday, 11:00-12:40) |
| 91 | P10. Stochastic control of tactical airline operations in hub airport networks | Presentation | Summer school 2019 | 09-13SEP19 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |
| 92 | P10. Stochastic control of tactical airline operations in hub airport networks | Presentation | TC4(2) workshop | 12NOV19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 93 | P10. Stochastic control of tactical airline operations in hub airport networks | Conference paper | 9th International Conference for Research in Air Transportation (ICRAT) | 15SEP20 | Airline Operations and Quality of Service: Paper 14 "Integrated Operations Control at Hub-Airports with Uncertain Arrival Times" (awarded the Best Paper Award within its theme) - https://www.icrat.org/previous-conferences/9th-international-conference/papers/ (abstract only: http://www.icrat.org/ICRAT/seminarContent/2020/abstracts/ICRAT_2020_Abstract_14.pdf) |
| 94 | P10. Stochastic control of tactical airline | Presentation | Summer school 2020 | 21-25SEP20 | (unpublished by agreement with PhD candidates - refer to summer school 2021 presentation instead) |

| # | Who | Output | Event | Date | Further information |
|-----|--|------------------|---|-----------------|--|
| | operations in hub airport networks | | | | |
| 95 | P10. Stochastic control of tactical airline operations in hub airport networks | Conference paper | 10th SESAR Innovation Days (SIDs 2020) | 07-10DEC20 | Paper 67: "Development of Stochastic Delay Cost Functions" - https://www.sesarju.eu/sites/default/files/documents/sid/2020/papers/SIDs_2020_paper_67red.pdf |
| 96 | P10. Stochastic control of tactical airline operations in hub airport networks | Journal article | Journal of Air Transport Management, Vol. 92 | 09FEB21 | "Airline Ground Operations: Optimal Schedule Recovery with Uncertain Arrival Times" - https://doi.org/10.1016/j.jairtraman.2021.102021 |
| 97 | P10. Stochastic control of tactical airline operations in hub airport networks | Journal article | Transportation Research Part C: Emerging Technologies, Vol. 128 | 26MAY21 | "Airline ground operations: Schedule recovery optimization approach with constrained resources" - https://doi.org/10.1016/j.trc.2021.103129 |
| 98 | P10. Stochastic control of tactical airline operations in hub airport networks | Presentation | 2nd ATFM airline coordination workshop (organised by the PhD candidate) | JUN21 | Results of "Flight prioritization and turnaround recovery" ATM2021 paper (no published material; refer to https://drive.google.com/file/d/1GNQ5MK3jO7hw5fpu1UyPFMM9ITi92XN8/view instead) |
| 99 | P10. Stochastic control of tactical airline operations in hub airport networks | Presentation | Summer school 2021 | 30AUG21-02SEP21 | "Resource-constrained airline ground operations: optimizing schedule recovery under uncertainty" - https://engagektn.com/summer-school-2021/ |
| 100 | P10. Stochastic control of tactical airline operations in hub airport networks | Conference paper | 14th USA/Europe Air Traffic Management Research and Development Seminar (ATM2021) | 20-24SEP21 | Paper 12: "Flight prioritization and turnaround recovery" - https://drive.google.com/file/d/1GNQ5MK3jO7hw5fpu1UyPFMM9ITi92XN8/view |
| 101 | P10. Stochastic | Journal article | Computers and Operations | 16OCT21 | "Integration of Turnaround and Aircraft Recovery to Mitigate |

| # | Who | Output | Event | Date | Further information |
|-----|--|------------------|--|---------|---|
| | control of tactical airline operations in hub airport networks | | Research, Vol. 138 | | Delay Propagation in Airline Networks" - https://doi.org/10.1016/j.cor.2021.105602 |
| 102 | P10. Stochastic control of tactical airline operations in hub airport networks | Journal article | IEEE Access, Vol. 10, pp. 21424-21442 | 17FEB22 | "Stochastic Delay Cost Functions to Estimate Delay Propagation under Uncertainty" - https://doi.org/10.1109/ACCESS.2022.3152570 |
| 103 | P10. Stochastic control of tactical airline operations in hub airport networks | Report | Resource-Constrained Airline Ground Operations: Optimizing Schedule Recovery under Uncertainty | 30APR22 | PhD final report - https://engagektn.com/phd-abstracts/ |
| 104 | P10. Stochastic control of tactical airline operations in hub airport networks | Conference paper | 10th International Conference for Research in Air Transportation (ICRAT) | 22JUN22 | Network Management: Paper 10 "Airline Schedule Recovery at Hub Airports including Dynamic Cost Indexing and Re-Routing" - https://www.icrat.org/previous-conferences/10th-international-conference/papers/ (paper: https://drive.google.com/file/d/1ps5BwJqJptCx-468eDhpFU7u3IRXilXK/view) |
| 105 | UPC PhD. Automated DCB Hotspot Detection | Journal article | Aerospace, Vol. 9 | 10FEB22 | "RNN-CNN hybrid model to predict C-ATC Capacity regulations for en-route traffic" (publication cost supported by Engage) - https://www.mdpi.com/2226-4310/9/2/93 |

9.2 Catalyst fund project outputs

Table 17: Catalyst fund project outputs

| # | Who | Output | Event | Date | Further information |
|---|--|------------------|--|------------|---|
| 1 | C1. Probabilistic weather avoidance routes for medium-term storm avoidance ('PSA-Met') | Presentation | TC3(2) workshop | 05NOV19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 2 | C1. Probabilistic weather avoidance routes for medium-term storm avoidance ('PSA-Met') | Poster | 9th SESAR Innovation Days (SIDs 2019) | 02-05DEC19 | Poster - https://www.sesarju.eu/sites/default/files/documents/sid/2019/posters/Roll%20up%20SIDs%202019-07%20red.pdf |
| 3 | C1. Probabilistic weather avoidance routes for medium-term storm avoidance ('PSA-Met') | Conference paper | 10th SESAR Innovation Days (SIDs 2020) | 07-10DEC20 | Paper 16: "A Probabilistic Storm Avoidance Concept for En-Route Flight" - https://www.sesarju.eu/sites/default/files/documents/sid/2020/papers/SIDs_2020_paper_16red.pdf |
| 4 | C1. Probabilistic weather avoidance routes for medium-term storm avoidance ('PSA-Met') | Brochure | - | 2020 | MTSA: Medium-Term Storm Avoidance |
| 5 | C1. Probabilistic weather avoidance routes for medium-term storm avoidance ('PSA-Met') | Report | Probabilistic weather avoidance routes for medium-term storm avoidance ('PSA-Met') | 13JAN21 | Final technical report - https://engagektn.com/cf-summaries/ |
| 6 | C1. Probabilistic weather avoidance routes for | Presentation | TC3(3) workshop | 27JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |

| # | Who | Output | Event | Date | Further information |
|----|---|------------------|---|-----------------|---|
| | medium-term storm avoidance ('PSA-Met') | | | | |
| 7 | C2. airport-sCAle severe weather nowcastinG project ('CARGO') | Book chapter | Selected Papers of the International Conference on Time Series and Forecasting (ITISE 2019) | 2019 | "A Comparative Study on Machine Learning Techniques for Intense Convective Rainfall Events Forecasting" in Valenzuela O., Rojas F., Herrera L.J., Pomares H., Rojas I. (eds) Theory and Applications of Time Series Analysis. ITISE 2019. Contributions to Statistics. (ISBN 978-3-030-56218-2) - https://doi.org/10.1007/978-3-030-56219-9_20 |
| 8 | C2. airport-sCAle severe weather nowcastinG project ('CARGO') | Presentation | TC3(2) workshop | 05NOV19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 9 | C2. airport-sCAle severe weather nowcastinG project ('CARGO') | Presentation | EGU General Assembly 2020 | 04-08MAY20 | Abstract and slides: https://meetingorganizer.copernicus.org/EGU2020/EGU2020-20601.html |
| 10 | C2. airport-sCAle severe weather nowcastinG project ('CARGO') | Presentation | EGU General Assembly 2020 | 04-08MAY20 | Abstract and slides: https://meetingorganizer.copernicus.org/EGU2020/EGU2020-15177.html |
| 11 | C2. airport-sCAle severe weather nowcastinG project ('CARGO') | Conference paper | 2020 IEEE International Geoscience and Remote Sensing Symposium (IGARSS) | 26SEP20-02OCT20 | Session: TU2.R19 Clouds and Precipitation I "Understanding severe weather events at airport spatial scale" |
| 12 | C2. airport-sCAle severe weather nowcastinG project ('CARGO') | Report | airport-sCAle severe weather nowcastinG project ('CARGO') | 31DEC20 | Final technical report - https://engagektn.com/cf-summaries/ |

| # | Who | Output | Event | Date | Further information |
|----|--|------------------|---|------------|--|
| 13 | C2. airport-sCAle severe weather nowcastinG project ('CARGO') | Presentation | TC3(3) workshop | 27JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 14 | C3. Authentication and integrity for ADS-B | Code | SeRo Systems resources | 24OCT19 | "Phase Overlay Analysis" - https://sero-systems.de/resources/phase_overlay.html |
| 15 | C3. Authentication and integrity for ADS-B | Report | Authentication and integrity for ADS-B | 30SEP20 | Final technical report - https://engagektn.com/cf-summaries/ |
| 16 | C3. Authentication and integrity for ADS-B | Presentation | TC1(2) workshop | 10NOV20 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 17 | C4. Data-driven trajectory imitation with reinforcement learning | Presentation | TC2(2) workshop | 02DEC19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 18 | C4. Data-driven trajectory imitation with reinforcement learning | Article | arXiv | 16MAY20 | eprint in collaboration with University of Piraeus Research Center's PhD candidate, arXiv:2005.07960, 2020 "Data Driven Aircraft Trajectory Prediction with Deep Imitation Learning" - https://arxiv.org/abs/2005.07960 |
| 19 | C4. Data-driven trajectory imitation with reinforcement learning | Conference paper | 11th Hellenic Conference on Artificial Intelligence (SETN 2020) | 02-04SEP20 | Session 9: Forecasting, Trajectory Prediction "Apprenticeship learning of flight trajectories prediction with inverse reinforcement learning" - https://dl.acm.org/doi/10.1145/3411408.3411427 |
| 20 | C4. Data-driven trajectory imitation with reinforcement learning | Report | Data-driven trajectory imitation with reinforcement learning | 23NOV20 | Final technical report - https://engagektn.com/cf-summaries/ |

| # | Who | Output | Event | Date | Further information |
|----|--|------------------|--|------------|--|
| 21 | C4. Data-driven trajectory imitation with reinforcement learning | Presentation | TC2(3) workshop | 25JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 22 | C5. A Data-driven approach for dynamic and Adaptive trajectory PredictiON ('DIAPasON') | Presentation | TC2(2) workshop | 02DEC19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 23 | C5. A Data-driven approach for dynamic and Adaptive trajectory PredictiON ('DIAPasON') | Report | A Data-driven approach for dynamic and Adaptive trajectory PredictiON ('DIAPasON') | 31JUL20 | Final technical report - https://engagektn.com/cf-summaries/ |
| 24 | C5. A Data-driven approach for dynamic and Adaptive trajectory PredictiON ('DIAPasON') | Conference paper | 10th SESAR Innovation Days (SIDs 2020) | 07-10DEC20 | Paper 54: "Traffic Characterization for a Dynamic and Adaptive Trajectory Prediction Data-Driven Approach" - https://www.sesarju.eu/sites/default/files/documents/sid/2020/papers/SIDs_2020_paper_54red.pdf |
| 25 | C5. A Data-driven approach for dynamic and Adaptive trajectory PredictiON ('DIAPasON') | Presentation | TC2(3) workshop | 25JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 26 | C5. A Data-driven approach for dynamic and Adaptive trajectory PredictiON ('DIAPasON') | Journal article | Transportation Research Procedia, Vol. 58, pp. 5-12 | 2021 | "A data-driven approach for dynamic and adaptive aircraft trajectory prediction" - https://www.sciencedirect.com/science/article/pii/S2352146521007614 |
| 27 | C6. Operational alert Products for ATM via SWIM ('OPAS') | Presentation | 5th International Training School on Convective and Volcanic Clouds (CVC) | 04OCT19 | Slides (300MB) - http://sacs.aeronomie.be/OPAS/20191004_CVC_EWS_part1.pptx |

| # | Who | Output | Event | Date | Further information |
|----|--|------------------|--|-----------------|---|
| 28 | C6. Operational alert Products for ATM via SWIM ('OPAS') | Presentation | TC3(2) workshop | 05NOV19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 29 | C6. Operational alert Products for ATM via SWIM ('OPAS') | Poster | 9th SESAR Innovation Days (SIDs 2019) | 02-05DEC19 | Poster - https://www.sesarju.eu/sites/default/files/documents/sid/2019/posters/Roll%20up%20SIDs%202019-14%20OK.pdf |
| 30 | C6. Operational alert Products for ATM via SWIM ('OPAS') | Presentation | EGU General Assembly 2020 | 04-08MAY20 | Abstract and slides: https://meetingorganizer.copernicus.org/EGU2020/EGU2020-15249.html |
| 31 | C6. Operational alert Products for ATM via SWIM ('OPAS') | Poster | 9th International DOAS Workshop | 13-15JUL20 | Poster 6 - http://sacs.aeronomie.be/OPAS/20200713_DOASws_poster-6_Brenot_OPAS.pdf |
| 32 | C6. Operational alert Products for ATM via SWIM ('OPAS') | Conference paper | 2020 IEEE International Geoscience and Remote Sensing Symposium (IGARSS) | 26SEP20-02OCT20 | Session: WE1.R2 Monitoring and Damage Assessment of Natural Disasters III "Prototyping of a multi-hazard early warning system for aviation and development of NRT alert products within the EUNADICS-AV and OPAS projects"; Paper - http://sacs.aeronomie.be/OPAS/20200930_IGARSS_proceedings_vanGent_OPAS.pdf |
| 33 | C6. Operational alert Products for ATM via SWIM ('OPAS') | Report | Operational alert Products for ATM via SWIM ('OPAS') | 16OCT20 | Final technical report - https://engagektn.com/cf-summaries/ |
| 34 | C6. Operational alert Products for ATM via SWIM ('OPAS') | Conference paper | 10th SESAR Innovation Days (SIDs 2020) | 07-10DEC20 | Paper 72: "Volcanic SO2 Height SWIM Service" - https://www.sesarju.eu/sites/default/files/documents/sid/2020/papers/SIDs_2020_paper_72red.pdf |
| 35 | C6. Operational alert Products for ATM via SWIM ('OPAS') | Presentation | TC3(3) workshop | 27JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 36 | C7. An interaction metric for an efficient traffic | Presentation | TC2(2) workshop | 02DEC19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |

| # | Who | Output | Event | Date | Further information |
|----|--|--------------|--|------------|---|
| | demand management: requirements for the design of data-driven protection mechanisms ('INTERFACING') | | | | |
| 37 | C7. An interaction metric for an efficient traffic demand management: requirements for the design of data-driven protection mechanisms ('INTERFACING') | Report | An interaction metric for an efficient traffic demand management: requirements for the design of data-driven protection mechanisms ('INTERFACING') | 31JUL20 | Final technical report - https://engagektn.com/cf-summaries/ |
| 38 | C7. An interaction metric for an efficient traffic demand management: requirements for the design of data-driven protection mechanisms ('INTERFACING') | Presentation | Summer school 2020 | 21-25SEP20 | (unpublished) |
| 39 | C7. An interaction metric for an efficient traffic demand management: requirements for the design of data-driven protection mechanisms ('INTERFACING') | Presentation | TC2(3) workshop | 25JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 40 | C8. MET enhanced ATFCM | Presentation | TC3(2) workshop | 05NOV19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |

| # | Who | Output | Event | Date | Further information |
|----|------------------------|---------------|---|------------|--|
| 41 | C8. MET enhanced ATFCM | Poster | 9th SESAR Innovation Days (SIDs 2019) | 02-05DEC19 | Poster - https://www.sesarju.eu/sites/default/files/documents/sid/2019/posters/Roll%20up%20SIDs%202019-16%20red.pdf |
| 42 | C8. MET enhanced ATFCM | Dissemination | Blog | 09JAN20 | Blog post - https://fracs.aero/2020/01/09/cheers-to-2019-projects-and-events/ |
| 43 | C8. MET enhanced ATFCM | Demonstration | World ATM Congress | 10-12MAR20 | Stand 480 (TBC); event later cancelled due to Covid-19 |
| 44 | C8. MET enhanced ATFCM | Dissemination | Blog | 25MAR20 | Blog post - https://fracs.aero/2020/03/25/met-enhanced-atfcm-a-rd-convection-tool-by-fracs-and-metsafe/ |
| 45 | C8. MET enhanced ATFCM | Dissemination | FRACS newsletter | 31MAR20 | Newsletter - https://mailchi.mp/e58d6b7fae69/juin-chez-dsna-services-1336570?e=7b64faad17 |
| 46 | C8. MET enhanced ATFCM | Dissemination | LinkedIn | 08JUL20 | Operational validation - https://www.linkedin.com/posts/metsafe_innovation-weather-sesar-activity-6686539615836397568-Fnoi |
| 47 | C8. MET enhanced ATFCM | Tool | SWIM webservice | 01SEP20 | European Convection Forecast - https://eur-registry.swim.aero/services/metsafe-european-convection-forecast-10 |
| 48 | C8. MET enhanced ATFCM | Presentation | TC3(3) workshop | 27JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 49 | C8. MET enhanced ATFCM | Report | MET enhanced ATFCM | 29JAN21 | Final technical report - https://engagektn.com/cf-summaries/ |
| 50 | C8. MET enhanced ATFCM | Presentation | Meteorological Technology World Expo Virtual 'Live' Conference for Aviation Meteorology | 24MAR21 | Content included with 'WIPA' presentation |

| # | Who | Output | Event | Date | Further information |
|----|--|--------------|---|------------|--|
| 51 | C9. Exploring future UDPP concepts through computational behavioural economics | Presentation | TC4(2) workshop | 12NOV19 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 52 | C9. Exploring future UDPP concepts through computational behavioural economics | Poster | 9th SESAR Innovation Days (SIDs 2019) | 02-05DEC19 | Poster - https://www.sesarju.eu/sites/default/files/documents/sid/2019/posters/Roll%20up%20SIDs%202019-13%20OK.pdf |
| 53 | C9. Exploring future UDPP concepts through computational behavioural economics | Report | D1.1 UDPP Assessment Framework: Indicators and Metrics | 07JAN20 | Report - https://engagektn.com/cf-summaries/ |
| 54 | C9. Exploring future UDPP concepts through computational behavioural economics | Report | D2.1 Tactical Slot and Trajectory Allocation Mechanisms: Qualitative Assessment | 10JAN20 | Report - https://engagektn.com/cf-summaries/ |
| 55 | C9. Exploring future UDPP concepts through computational behavioural economics | Presentation | EUROCONTROL UDPP team | 02FEB20 | (unpublished) |
| 56 | C9. Exploring future UDPP concepts through computational behavioural economics | Presentation | Workshop | 27JUL20 | (unpublished) |
| 57 | C9. Exploring future UDPP concepts through computational | Report | D3.1 Agent-Based Simulation Model for the Analysis of Tactical Slot and | 24AUG20 | Report - https://engagektn.com/cf-summaries/ |

| # | Who | Output | Event | Date | Further information |
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| | behavioural economics | | Trajectory Allocation Mechanisms | | |
| 58 | C9. Exploring future UDPP concepts through computational behavioural economics | Report | Exploring future UDPP concepts through computational behavioural economics | 30AUG20 | Final technical report - https://engagektn.com/cf-summaries/ |
| 59 | C9. Exploring future UDPP concepts through computational behavioural economics | Report | D4.1 Results of Simulation Experiments: Comparative Analysis of Different Tactical Slot and Trajectory Allocation Mechanisms | 31AUG20 | Report - https://engagektn.com/cf-summaries/ |
| 60 | C9. Exploring future UDPP concepts through computational behavioural economics | Presentation | Summer school 2020 | 21-25SEP20 | (unpublished) |
| 61 | C9. Exploring future UDPP concepts through computational behavioural economics | Conference paper | 10th SESAR Innovation Days (SIDs 2020) | 07-10DEC20 | Paper 61: "Evaluation of Flight Prioritization Mechanisms Through Agent-Based Modelling" - https://www.sesarju.eu/sites/default/files/documents/sid/2020/papers/SIDs_2020_paper_61red.pdf |
| 62 | C9. Exploring future UDPP concepts through computational behavioural economics | Conference paper | 14th USA/Europe Air Traffic Management Research and Development Seminar (ATM2021) | 20-24SEP21 | Paper 51: "Exploring future UDPP concepts through computational behavioural economics" - https://drive.google.com/file/d/1p13JYvQvCgaBRa-d17YB15Tn9Sm3oHN3/view |
| 63 | C10. The drone identity - investigating forensic- | Journal article | IEEE Access, Vol. 7, pp. 148401-148412 | 2019 | "LiveBox: A Self-Adaptive Forensic-Ready Service for Drones" - http://dx.doi.org/doi:10.1109/ACCESS.2019.2942033 |

| # | Who | Output | Event | Date | Further information |
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| | readiness of U-Space services | | | | |
| 64 | C10. The drone identity - investigating forensic-readiness of U-Space services | Conference paper | 27th IEEE International Requirements Engineering Conference (RE'19) | 23-27SEP19 | Proceedings "Environment-Centric Safety Requirements for Autonomous Unmanned Systems" - https://oro.open.ac.uk/62308/ |
| 65 | C10. The drone identity - investigating forensic-readiness of U-Space services | Conference paper | 34th IEEE/ACM International Conference on Automated Software Engineering (ASE'19) | 11-15NOV19 | Proceedings "Cautious Adaptation of Defiant Components" - http://oro.open.ac.uk/66811 |
| 66 | C10. The drone identity - investigating forensic-readiness of U-Space services | Presentation | Canterbury Cyber Conference | 21JAN20 | (unpublished) |
| 67 | C10. The drone identity - investigating forensic-readiness of U-Space services | Conference paper | International Conference on Robotics and Automation | 31MAY20-31AUG20 | Proceedings "Privacy-Aware UAV Flights through Self-Configuring Motion Planning" - https://oro.open.ac.uk/69154/ |
| 68 | C10. The drone identity - investigating forensic-readiness of U-Space services | Report | The drone identity | 30JUN20 | Final technical report - https://engagektn.com/cf-summaries/ |
| 69 | C10. The drone identity - investigating forensic-readiness of U-Space services | Presentation | TC1(2) workshop | 10NOV20 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 70 | C10. The drone identity - investigating forensic-readiness of U-Space services | Video | DroneBox: Automated Adaptive Collection of UAV Flight Data | 2021 | Video - https://www.droneidentity.eu/ |
| 71 | C11. Proof-of-concept: practical, | Presentation | Webinar ("The cyber world - a | 16JUN21 | (unpublished) |

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| | flexible, affordable pentesting platform for ATM/avionics cybersecurity ('ATM-cybersec') | | threat or an opportunity") | | |
| 72 | C11. Proof-of-concept: practical, flexible, affordable pentesting platform for ATM/avionics cybersecurity ('ATM-cybersec') | Report | Proof-of-concept: practical, flexible, affordable pentesting platform for ATM/avionics cybersecurity ('ATM-cybersec') | 29JUL21 | Final technical report - https://engagektn.com/cf-summaries/ |
| 73 | C11. Proof-of-concept: practical, flexible, affordable pentesting platform for ATM/avionics cybersecurity ('ATM-cybersec') | Presentation | TC1(3) workshop | 15SEP21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 74 | C11. Proof-of-concept: practical, flexible, affordable pentesting platform for ATM/avionics cybersecurity ('ATM-cybersec') | Journal article | IEEE Transactions on Aerospace and Electronic Systems (early access) | 31DEC21 | "Cybersecurity attacks on software logic and error handling within ADS-B implementations: Systematic testing of resilience and countermeasures" - https://doi.org/10.1109/TAES.2021.3139559 |
| 75 | C11. Proof-of-concept: practical, flexible, affordable pentesting platform for ATM/avionics cybersecurity | Journal article | IEEE Access, Vol. 10, pp. 21554-21562 | 02FEB22 | "GDL90fuzz: Fuzzing - GDL-90 Data Interface Specification Within Aviation Software and Avionics Devices—A Cybersecurity Pentesting Perspective" - https://doi.org/10.1109/ACCESS.2022.3150840 |

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| | ('ATM-cybersec') | | | | |
| 76 | C12. Safe drone flight - assuring telemetry data integrity in U-Space scenarios ('SDF') | Presentation | TC1(2) workshop | 10NOV20 | Slides (zipped), project content included with 'The Drone Identity' presentation - https://engagektn.com/thematic-challenges/ |
| 77 | C12. Safe drone flight - assuring telemetry data integrity in U-Space scenarios ('SDF') | Presentation | Interim project workshop | 11JAN21 | (unpublished; workshop takeaways are summarised in the Final technical report - see #79) |
| 78 | C12. Safe drone flight - assuring telemetry data integrity in U-Space scenarios ('SDF') | Presentation | Final project workshop | 14JUN21 | (unpublished; workshop takeaways are summarised in the Final technical report - see #79) |
| 79 | C12. Safe drone flight - assuring telemetry data integrity in U-Space scenarios ('SDF') | Report | Safe drone flight - assuring telemetry data integrity in U-Space scenarios ('SDF') | 27JUL21 | Final technical report - https://engagektn.com/cf-summaries/ |
| 80 | C12. Safe drone flight - assuring telemetry data integrity in U-Space scenarios ('SDF') | Presentation | TC1(3) workshop | 15SEP21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 81 | C12. Safe drone flight - assuring telemetry data integrity in U-Space scenarios ('SDF') | Report | Use Cases and Scenarios | 06DEC21 | Report - https://engagektn.com/cf-summaries/ |
| 82 | C13. Flight centric ATC with airstreams ('FC2A') | Presentation | Summer school 2020 | 21-25SEP20 | (unpublished) |
| 83 | C13. Flight centric ATC with airstreams ('FC2A') | Poster | 10th SESAR Innovation Days (SIDs 2020) | 07-10DEC20 | Poster - https://d1keuthy5s86c8.cloudfront.net/static/ems/upload/files/FC2A_SIDs_2020_Poster_V2.2.pdf |

| # | Who | Output | Event | Date | Further information |
|----|--|---------------|---|------------|---|
| 84 | C13. Flight centric ATC with airstreams ('FC2A') | Presentation | TC2(3) workshop | 25JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 85 | C13. Flight centric ATC with airstreams ('FC2A') | Presentation | Operational workshop | 16FEB21 | https://neometsys.fr/2021/02/01/save-the-date-fc2a-operational-workshop-february-16th-2021-10h00-13h00-cet-virtual-event/ |
| 86 | C13. Flight centric ATC with airstreams ('FC2A') | Presentation | Industrial workshop | 15APR21 | https://neometsys.fr/2021/03/31/save-the-date-fc2a-industrial-workshop-april-15th-2021-10h00-13h00-cet-virtual-event/ |
| 87 | C13. Flight centric ATC with airstreams ('FC2A') | Presentation | 9th International Conference on Experiments / Process / System / Modeling / Simulation / Optimization | 07-10JUL21 | Session: Smart and collaborative flow management "Flight Centric Air Traffic Control with Airstreams. A New Approach to Traffic Flow Modeling" |
| 88 | C13. Flight centric ATC with airstreams ('FC2A') | Report | Flight centric ATC with airstreams ('FC2A') | 30NOV21 | Final technical report - https://engagektn.com/cf-summaries/ |
| 89 | C14. Meteo Sensors In the Sky ('METSIS') | Dissemination | NLR press release | 17JUL20 | NLR - https://www.nlr.org/news/kick-off-metsis-project-real-time-weather-information-for-drone-operators/ |
| 90 | C14. Meteo Sensors In the Sky ('METSIS') | Poster | 10th SESAR Innovation Days (SIDs 2020) | 07-10DEC20 | Poster - https://d1keuthy5s86c8.cloudfront.net/static/ems/upload/files/METSIS_Poster_V1.pdf |
| 91 | C14. Meteo Sensors In the Sky ('METSIS') | Presentation | TC3(3) workshop | 27JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 92 | C14. Meteo Sensors In the Sky ('METSIS') | Presentation | Amsterdam Drone Week Industry Update 2021 | 01JUL21 | - |
| 93 | C14. Meteo Sensors In the Sky ('METSIS') | Dissemination | SESAR e-news feature | 13JUL21 | Feature - https://www.sesarju.eu/news/winds-change-how-weather-impacts-drone-operations |

| # | Who | Output | Event | Date | Further information |
|-----|--|------------------|---|------------|--|
| 94 | C14. Meteo Sensors In the Sky ('METSIS') | Video | METeo Sensors In the Sky (METSIS) project | 13JUL21 | Video - https://www.youtube.com/watch?v=-OVcgA3-hRQ |
| 95 | C14. Meteo Sensors In the Sky ('METSIS') | Dissemination | LinkedIn | JUL21 | Wind nowcasts for drones by drones - https://www.linkedin.com/post/nlr_wind-nowcasts-for-drones-by-drones-activity-6818494329657532416-ViYW |
| 96 | C14. Meteo Sensors In the Sky ('METSIS') | Dissemination | Dronewatch news article | 23JUL21 | Feature - https://www.dronewatch.nl/2021/07/23/nieuw-systeem-van-nlr-en-airhub-voorspelt-lokale-windsnelheden-op-lage-hoogte/ |
| 97 | C14. Meteo Sensors In the Sky ('METSIS') | Report | METeo Sensors In the Sky ('METSIS') | 30JUL21 | Final technical report - https://engagektn.com/cf-summaries/ |
| 98 | C14. Meteo Sensors In the Sky ('METSIS') | Conference paper | 11th SESAR Innovation Days (SIDs 2021) | 07-09DEC21 | Paper 88: "METSIS: Hyperlocal Wind Nowcasting for U-space" - https://www.sesarju.eu/sites/default/files/documents/sid/2021/papers/SIDs_2021_paper_88.pdf |
| 99 | C15. Probabilistic information Integration in Uncertain data processing for Trajectory Prediction ('PIU4TP') | Dissemination | CIRA project page | JUL20 | CIRA - https://www.cira.it/en/aeronautics/sistemi-di-bordo-e-atm/piu4tp |
| 100 | C15. Probabilistic information Integration in Uncertain data processing for Trajectory Prediction ('PIU4TP') | Poster | 10th SESAR Innovation Days (SIDs 2020) | 07-10DEC20 | Poster - https://d1keuthy5s86c8.cloudfront.net/static/ems/upload/files/SIDs_2020_POSTER_P4T_FINAL.pdf |
| 101 | C15. Probabilistic information Integration in Uncertain data | Presentation | TC2(3) workshop | 25JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |

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| | processing for Trajectory Prediction ('PIU4TP') | | | | |
| 102 | C15. Probabilistic information Integration in Uncertain data processing for Trajectory Prediction ('PIU4TP') | Report | Probabilistic information Integration in Uncertain data processing for Trajectory Prediction ('PIU4TP') | 22JUL21 | Final technical report - https://engagektn.com/cf-summaries/ |
| 103 | C16. Collaborative cyber security management framework | Report | Collaborative cyber security management framework | 30JUN21 | Final technical report - https://engagektn.com/cf-summaries/ |
| 104 | C16. Collaborative cyber security management framework | Presentation | TC1(3) workshop | 15SEP21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 105 | C16. Collaborative cyber security management framework | Book chapter | Cybersecurity in Transport Systems | JUN22 | IET book shop - https://shop.theiet.org/cybersecurity-in-transport-systems |
| 106 | C17. Role of Markets in AAS Deployment ('RoMiAD') | Dissemination | Blog | AUG20 | Blog post - https://think.aero/views/romiad-catalyst-of-atm-transformation/ |
| 107 | C17. Role of Markets in AAS Deployment ('RoMiAD') | Presentation | Summer school 2020 | 21-25SEP20 | (unpublished) |
| 108 | C17. Role of Markets in AAS Deployment ('RoMiAD') | Video | Role Of Markets In Airspace Architecture Study (AAS) Deployment | 25SEP20 | Video - https://www.youtube.com/watch?v=68TVzT3IMmQ |
| 109 | C17. Role of Markets in AAS Deployment ('RoMiAD') | Presentation | First Virtual User Group | OCT20 | (unpublished) |
| 110 | C17. Role of Markets in AAS | Dissemination | Blog | OCT20 | Blog post - https://think.aero/views/do- |

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| | Deployment ('RoMiAD') | | | | we-need-to-regulate-virtualisation/ |
| 111 | C17. Role of Markets in AAS Deployment ('RoMiAD') | Presentation | Second Virtual User Group | DEC20 | (unpublished) |
| 112 | C17. Role of Markets in AAS Deployment ('RoMiAD') | Presentation | ICAO Global Symposium 2020 | DEC20 | Video - https://think.aero/videos/how-virtualisation-can-transform-the-atm-marketplace/ |
| 113 | C17. Role of Markets in AAS Deployment ('RoMiAD') | Presentation | Third Virtual User Group | FEB21 | (unpublished) |
| 114 | C17. Role of Markets in AAS Deployment ('RoMiAD') | Presentation | EUROCAE WG-122 - Regulatory considerations for the deployment of virtual centres | 2021 | - |
| 115 | C17. Role of Markets in AAS Deployment ('RoMiAD') | Presentation | CANSO Strategic Technology Workgroup (STWG) - Inputs on the deployment of virtual centres | 2021 | - |
| 116 | C17. Role of Markets in AAS Deployment ('RoMiAD') | Dissemination | Blog | MAR21 | Blog post - https://think.aero/views/initial-thoughts-on-the-benefits-of-virtualisation-in-atm/ |
| 117 | C17. Role of Markets in AAS Deployment ('RoMiAD') | Report | Role of Markets in AAS Deployment ('RoMiAD') | 31MAR21 | Project report - https://think.aero/testing/wp-content/uploads/2021/09/RoMiAD-technical-report-1.pdf |
| 118 | C17. Role of Markets in AAS Deployment ('RoMiAD') | Report | Role of Markets in AAS Deployment ('RoMiAD') | 07MAY21 | Final technical report - https://engagektn.com/cf-summaries/ |
| 119 | C17. Role of Markets in AAS Deployment ('RoMiAD') | White paper | How to incentivise innovation in ATM? | 17JUN21 | White paper - https://engagektn.com/cf-summaries/ |
| 120 | C17. Role of Markets in AAS | Presentation | TC4(3) workshop | 21JUN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |

| # | Who | Output | Event | Date | Further information |
|-----|---|---------------|---|------------|---|
| | Deployment ('RoMiAD') | | | | |
| 121 | C18. Weather impact prediction for ATFCM ('WIPA') | Dissemination | Blog | 07OCT20 | Blog post - https://frac.aero/2020/10/07/the-weather-impact-tool-for-atfcm-is-becoming-an-operational-reality/ |
| 122 | C18. Weather impact prediction for ATFCM ('WIPA') | Poster | 10th SESAR Innovation Days (SIDs 2020) | 07-10DEC20 | Poster - https://d1keuthy5s86c8.cloudfront.net/static/ems/upload/files/WIPA_poster_final.pdf |
| 123 | C18. Weather impact prediction for ATFCM ('WIPA') | Presentation | TC3(3) workshop | 27JAN21 | Slides (zipped) - https://engagektn.com/thematic-challenges/ |
| 124 | C18. Weather impact prediction for ATFCM ('WIPA') | Presentation | Meteorological Technology World Expo Virtual 'Live' Conference for Aviation Meteorology | 24MAR21 | Content included with 'MET enhanced ATFCM' presentation |
| 125 | C18. Weather impact prediction for ATFCM ('WIPA') | Presentation | SMART Weather Task Force 1st workshop | 05MAY21 | (unpublished) |
| 126 | C18. Weather impact prediction for ATFCM ('WIPA') | Tool | SWIM webservice | JUN21 | VigiAero - http://www.vigiaero.com/ |
| 127 | C18. Weather impact prediction for ATFCM ('WIPA') | Dissemination | Blog | 25JUN21 | Blog post - https://frac.aero/2021/06/25/weather-impact-for-atm-a-challenge-rewarded/ |
| 128 | C18. Weather impact prediction for ATFCM ('WIPA') | Presentation | SMART Weather Task Force 2nd workshop | 29JUN21 | (unpublished) |
| 129 | C18. Weather impact prediction for ATFCM ('WIPA') | Report | Weather impact prediction for ATFCM ('WIPA') | 30JUL21 | Final technical report - https://engagektn.com/cf-summaries/ |



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