



D8.4: REPORTS ON WORKSHOPS ORGANISATION

Public document



AUTHOR(S):
J. Keranen/ L-Up
DATE: 29.06.2023
VERSION: V1

Grant Agreement number:	875154
Project acronym:	GREAT
Project title:	GREENER AIR TRAFFIC OPERATIONS
Funding scheme:	RIA/ H2020
Start date of the project:	January 1st, 2020
Duration:	42 months
Project coordinator (organisation):	Michael Finke (DLR)
Phone:	+49 531 295-2921
E-mail:	Michael.Finke@dlr.de
Project website address:	www.project-great.eu



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 875154 GreAT.

DOCUMENT INFORMATION

DOCUMENT NAME	D8.4: Reports on workshops organization
VERSION	VF
VERSION DATE	29/06/2023
AUTHOR	Jetta Keranen/ L-UP
SECURITY	Public

DOCUMENT APPROVALS

	NAME	ORGANISATION	DATE
COORDINATOR	Michael Finke P/O Marco-Michael Temme	DLR	29/06/2023
WP LEADER	Michael Finke P/O Marco-Michael Temme	DLR	29/06/2023
TASK LEADER	NA		
OTHER (QUALITY)	Jetta Keranen	L-UP	27/06/2023

DOCUMENT HISTORY AND LIST OF AUTHORS

VERSION	DATE	MODIFICATION	NAME (ORGANISATION)
V1	27/06/2023	First version	J. Keranen/ L-UP
VF	29/06/2023	Coordinator's validation	M. M. Temme/ DLR

DISTRIBUTION LIST

FULL NAME OR GROUP
GreAT Consortium EU
CINEA
All public

TABLE OF CONTENTS

1. INTRODUCTION	4
1.1. GREAT IN BRIEF	4
1.2. SCOPE OF THE DELIVERABLE	4
2. REPORT ON ACGA WORKSHOP 1 ORGANISATION	5
2.1. VENUE, AGENDA AND OBJECTIVES	5
2.2. PARTICIPANTS	6
2.3. OUTCOMES	6
3. REPORT ON ACGA WORKSHOP 2 ORGANISATION	7
3.1. VENUE, AGENDA AND OBJECTIVES	7
3.2. PARTICIPANTS	8
3.3. OUTCOMES	8
4. REPORT ON 11ST EASN WORKSHOP: ACGA JOINT SESSION	9
4.1. VENUE, AGENDA AND OBJECTIVES	9
4.2. PARTICIPANTS	9
4.3. OUTCOMES	9
5. REPORT ON 12ND EASN WORKSHOP: GREAT SESSION	11
5.1. VENUE, AGENDA AND OBJECTIVES	11
5.2. PARTICIPANTS	11
5.3. OUTCOMES	11
6. REPORT ON GREAT FINAL EVENT ORGANISATION	13
6.1. VENUE, AGENDA AND OBJECTIVES	13
6.2. COMMUNICATION	14
6.2.1. <i>Invitation letter</i>	14
6.2.2. <i>Linked In teasers</i>	16
6.3. PARTICIPANTS	21
6.4. OUTCOMES	22
6.4.1. <i>Press release</i>	23
7. CONCLUSIONS	24

1. INTRODUCTION

1.1. GREAT IN BRIEF

The perception of environmental problems, especially global warming, is more than ever an issue, especially at a time when reaching agreements on today's climate targets is a challenge and a topic of concern among citizens of all ages. Associated effects of global warming, like extreme weather events, are driven primarily by the emission of exhaust gases (especially carbon dioxide, nitrogen oxides and methane) and water vapor creating contrails. Hence, reducing emissions to preserve the environment, while keeping the air mobility, is a central society need now and in the future.

The flight trajectories are influenced on one hand by environmental and aircraft parameters, and on the other hand by air traffic control (ATC) driven parameters, like route length or usable altitudes. Thereby, to reduce the emissions in short and medium term, changes in flight trajectory design and ATC operations are one appropriate means.

The overall objective of GreAT is to reduce the fuel consumption and gas emissions during "gate-to-gate" flight phases through developing and accessing environment-friendly air traffic operational concepts, adaptive airspace structures and green trajectory optimization technologies, and supporting avionic systems. Evaluation campaigns between the European partners, combined with the Chinese partners through cross evaluations are intended to validate the proposed concept and to show a potential significant reduction of the aviation's impact on climate change.

1.2. SCOPE OF THE DELIVERABLE

To increase visibility of the project and interaction with other EU-funded projects, and in order to trigger a cross-fertilization of the results, the consortium organised:

- ➔ Two workshops with the sister projects ACGA (ACACIA – GA number 875036, ClimOP GA 875503 and ALTERNATE GA 875538) at Month 22 (October 2021) and Month 41 (May 2023) of project.
- ➔ Two EASN workshop sessions: One with ACGA sister projects at Month 21 (September 2021), and another by GreAT only at Month 34 (October 2022).
- ➔ A final event of the project at Month 42 (May 2023).

This deliverable highlight shortly the main organizational features, operational aspects and outcomes of these GreAT workshops and events. Open access link to presentations is included when applicable.

2. REPORT ON ACGA WORKSHOP 1 ORGANISATION

2.1. VENUE, AGENDA AND OBJECTIVES

Monday, 25th October 2021

Starting time	Duration	Agenda item	Speaker (s)
14:00	00:15	Welcome & agenda	Michael Finke-FL/ DLR
14:15	00:30	ALTERNATE: LCA of Alternative fuels	Gonca Seber/U. Hasselt - Hugo Valin/ IIASA
14:45	00:30	ALTERNATE: Market-based mechanisms to address emissions	Gustavo Alonso - Arturo Benito/ UPM
15:15	00:15	Break	
15:30	01:00	Brainstorming on: ALTERNATE – ACACIA	All - lead Sigrun Matthes-PA/ DLR
16:30	01:00	Brainstorming on: GreAT – ClimOP	All - lead Michael Finke-FL/ DLR
17:30		End of meeting	

Tuesday, 26th October 2021

Starting time	Duration	Agenda item	Speaker (s)
09:00	00:10	Welcome & agenda	Michael Finke-FL/ DLR
09:10	01:00	GREAT: Performance Assessment Methodology / Environmental Impact Assessment	Arturo Benito/ UPM - Attila Pasztor/ HC
10:10	01:00	ACACIA/ FlyATM4E (SESAR Project): Climate sensitive areas	Simone Dietmüller -PA/ DLR
11:10	00:15	Break	
11:25	00:45	All projects: Brainstorming on common dissemination actions	All - lead by Jetta Keranen / L-UP
12:10	00:20	Conclusions	Michael Finke-FL/ DLR
12:30		End of meeting	

The objective of the first internal ACGA sister projects' on-line workshop consisting of two half a day plenary sessions was to give presentations on identified, common topics (concerned ACACIA, GreAT and ALTERNATE), and carry out more focused bilateral brainstorming between ALTERNATE-ACACIA and GreAT-ClimOP. In addition, a brainstorming was carried out on joint communication and dissemination actions between the 4 sister projects.

2.2. PARTICIPANTS

28 persons from 4 projects participated in the workshop.

2.3. OUTCOMES

Fruitful technical discussions and exchanges were carried out. The communication and dissemination brainstorming concluded:

- ➔ No real / enough scientific overlap between projects for joint publications at the end of 2021
- ➔ Possible use of sister projects' results as input for publications or mention (of these results) as references / parallel activity
- ➔ Each project on its own cannot solve all of aviation's climate impact issues – therefore cooperation of different areas and joint communication are appropriate, but at this stage mainly for visibility, not so much on a scientific level
- ➔ It is important to build a common message to explain how each of the four projects can contribute to mitigating aviation's impact on the climate
- ➔ As the climate change is a topic of concern for many European citizens, the EC will certainly appreciate to see the four projects collaborate / issue joint publication at the end
- ➔ Share systematically the respective calendars of events / workshops / activities where joint ACGA appearances could be organized. Sister projects could also act as referees for communications.
- ➔ Possible events / conferences for common messages (and why not a publication of proceedings or even a book chapter(s)):
 - Invite the others in closing event of each project (or organize joint final event if applicable)
 - EASN Conference (Oct 18-21st, 2022) as this is one of the major events in the aviation sector
 - TAC (June 27-30th, 2022, Bad Aibling / Germany, ~100-120 participants, organization by ACACIA) – present ACGA cluster externally by a poster. This poster can be found in Zenodo: <https://zenodo.org/record/7454824>
- ➔ Use leverage of ACGA cluster to boost own communication / cross-fertilization to augment audience of each project, for instance by publishing website links or newsletter subscription links of sister projects, posts on LinkedIn or items in Newsletters to introduce sister projects. The sister projects contributed in two Newsletters: [Newsletter#3](#) and [Newsletter#4](#).
- ➔ Produce a short video to explain ACGA cluster. This video can be visualized in YouTube: <https://www.youtube.com/watch?v=9hel3GIPEkY>

3. REPORT ON ACGA WORKSHOP 2 ORGANISATION

3.1. VENUE, AGENDA AND OBJECTIVES

Wednesday, 17th May 2023

ID	Time needed	Topic	Driving Partner
1	9h00-10h00 (45min pres, 15min discussion)	GreAT: Achievements that could be of interest for the other projects – incl. discussion	DLR (FL)/ HungaroControl
2	10h00-11h00	ACACIA: Achievements that can be of interest for the other projects – incl. discussion	DLR (PA)
-	11h00-11h15	Coffee break	
3	11h15-12h15	ClimOP: Achievements that can be of interest for the other projects – incl. discussion	DBLUE
-	12:15-13h30	Lunch break	
4	13h30-14h30	ALTERNATE: Achievements that can be of interest for the other projects – incl. discussion	UPM
-	14h30-14h45	Break	
5	14h45-15h15	All: Identify opportunities for common publications / recommendations / opinion papers	DLR / L-UP (all projects)
6	15h15-15h30	All: Continuation of dissemination after 30th June 2023	DLR / L-UP (all projects)
	End of the WS		

The objective of the second internal ACGA sister projects' (ACACIA, ClimOP, GreAT and ALTERNATE) 1-day on-line workshop was to present the final achievements that could be of interest for the other projects. The presentations were asked to be structured as follows: Recap of goals, concept / solution, experiments, results, first ideas / proposals for points 5&6 of the agenda (current and future dissemination opportunities).

3.2. PARTICIPANTS

15 persons from 4 projects participated in the workshop.

3.3. OUTCOMES

Fruitful technical discussions and exchanges took place. A brainstorming was carried out on identified topics for the common scientific papers, opinion papers, posters, standards,...

Eight topics were identified to be the most relevant for a joint publication, among the eight, two papers stood out for drafting:

- Impact of sustainable aviation fuels on climate optimized routing, led by ClimOP, contribution by ALTERNATE
- Greener AT potential in general – avoid and compensate, led by GreAT, contribution by ClimOP and ACACIA

4. REPORT ON 11ST EASN WORKSHOP: ACGA JOINT SESSION

4.1. VENUE, AGENDA AND OBJECTIVES

Thursday, 2 September 2021

ROOM 3	
(Click to join the Virtual Meeting ROOM)	
R&D Research in the Field of Aeronautics & Air Transport: ACACIA, ClimOP, GREAT, ALTERNATE Joint Session	
Mr. Michael Finkel DLR, Germany	
Possibilities for an ANSP in international collaborative R&D project aiming at Greener Air Traffic Operations Fanni Kling	Occurrences of natural and contrail cirrus and their microphysical properties observed from in-situ measurements Yue Ji, Christoph Mahrke, Susanne Koch, Andreas Petzold and Martina Kraiser
ACACIA: Developing improved understanding on aviation's climate impact Sigrun Matthes, David Gierens, ACACIA Team	ClimOP Project – Climate assessment of innovative mitigation strategies towards operational improvements in aviation Patrick Peter, Sigrun Matthes, Volker Grewe and ClimOP Team
Non-CO ₂ Impacts of Aviation Nadja Olanovic, Colin Tully, David Neubauer, Ulrike Lohmann	The analysis of NO _x -ozone effects from optimised air-traffic using algorithmic climate change functions Frank Rao, Feiya Yin, Volker Grewe, Hiroyuki Yamashita, Patrick Jöckel
	Environmental impact of sustainable aviation fuels from the hydroprocessing of oilseed crops Gonca Seber, Neus Escobar

ACGA sister projects' (ACACIA, ClimOP, GreAT and ALTERNATE) organized a joint session at the 11th EASN Virtual International Conference on *Innovation in Aviation & Space to the Satisfaction of the European Citizens* (<https://easnconference.eu/>). The session called *R&D Research in the Field of Aeronautics & Air Transport: ACACIA, ClimOP, GREAT, ALTERNATE Joint Session* was chaired by Michael Finkel/ DLR.

4.2. PARTICIPANTS

Around 20 persons were present at the audience during the session of GreAT.

4.3. OUTCOMES

Fruitful technical discussions and exchanges took place.

The book of abstracts (see p. 130) can be found in: https://easconference.eu/sites/default/files/11th_EASN_Virtual_Conference-Book_of_Abstracts.pdf.

The GreAT presentation can be found in GreAT Zenodo Community : <https://zenodo.org/communities/great/>.

Presentation	Link
<p>September 2, 2021 (VF) Presentation Open Access</p> <p>Possibilities for an ANSP in international collaborative R&D project aiming at Greener Air Traffic Operations- GreAT</p> <p>Kling, Fanni;</p> <p>Presentation given at the 11th EASN Virtual International Conference, on 02/09/2021.</p> <p>Uploaded on September 3, 2021</p>	<p>https://zenodo.org/record/5421142</p>

5. REPORT ON 12ND EASN WORKSHOP: GREAT SESSION

5.1. VENUE, AGENDA AND OBJECTIVES

Thursday, 20 Octobre 2022

GREAT project session
Mr. Michael Finke (DLR, Germany)
The GreAT Project - Overview Michael Finke
Efficient Conflict-Free Taxi Trajectories Using Genetic Algorithms Lukas Tyburzy, Malin Schaper, Lennard Nöthen, Kathrin Muff
Enabling green approaches by FMS- AMAN coordination Nils Albrecht, Daniela Sforzica, Thorsten Mühlhaußen, Marco-Michael Tamme
The environmental impact assessment of greener trajectories Gustavo Alonso, Arturo Benito
Operational assessment by an airspace user Tim ten Velds, Clem van der Waerden

GreAT organized a workshop session at the 12th EASN International Conference on *Innovation in Aviation and Space for opening New Horizons* (<https://easnconference.eu/>). The session called *GreAT project session* was chaired by Michael Finke / DLR.

5.2. PARTICIPANTS

Around 20 persons were present at the audience during the session of GreAT.

5.3. OUTCOMES

Fruitful technical discussions and exchanges took place.

The GreAT presentations can be found in GreAT Zenodo Community : <https://zenodo.org/communities/great/>.

Presentation	Link
<p>October 20, 2022 (VF) Presentation Open Access</p> <p>Greener Air Traffic Operations - The GreAT Project</p> <p>Finke, Michael;</p> <p>Presentation at the 12th EASN International Conference on 'Innovation in Aviation & Space for opening 18-21/10/22, http://easnconference.eu/</p> <p>Uploaded on December 18, 2022</p>	<p>https://zenodo.org/record/7454807</p>
<p>October 20, 2022 (VF) Presentation Open Access</p> <p>Efficient Conflict-Free Taxi Trajectories Using Genetic Algorithms</p> <p>Tyburzy, Lukas; Stasicka, Izabela; Mühlhausen, Thorsten; Temme, Marco;</p> <p>Presentation at the 12th EASN International Conference on 'Innovation in Aviation & Space for opening Barcelona, Spain, 18-21/10/22, http://easnconference.eu/</p> <p>Uploaded on June 1, 2023</p>	<p>https://zenodo.org/record/7993705</p>
<p>October 20, 2022 (VF) Presentation Open Access</p> <p>Enabling green approaches by FMS-AMAN coordination</p> <p>Ahrenhold, Nils; Stasicka, Isabela; Temme, Marco-Michael; Mühlhausen, Thorsten;</p> <p>Presentation at 12th EASN International Conference on 'Innovation in Aviation & Space for opening Ne Barcelona, Spain, 18-21/10/22, http://easnconference.eu/</p> <p>Uploaded on June 1, 2023</p>	<p>https://zenodo.org/record/7993732</p>
<p>October 20, 2022 (VF) Presentation Open Access</p> <p>The environmental impact assessment of greener trajectories</p> <p>Alonso, Gustavo; Benito, Arturo;</p> <p>Presentation at 12th EASN International Conference on 'Innovation in Aviation & Space for opening Ne 21/10/22, http://easnconference.eu/</p> <p>Uploaded on December 21, 2022</p>	<p>https://zenodo.org/record/7466963</p>
<p>October 20, 2022 (VF) Presentation Open Access</p> <p>Operational Assessment by an airspace user</p> <p>Clim van der Weijden; Tim ten Velde;</p> <p>Presentation at the 12th EASN International Conference on 'Innovation in Aviation & Space for opening 18-21/10/22, http://easnconference.eu/</p> <p>Uploaded on December 18, 2022</p>	<p>https://zenodo.org/record/7454815</p>

6. REPORT ON GREAT FINAL EVENT ORGANISATION

6.1. VENUE, AGENDA AND OBJECTIVES

Wednesday, 24th May 2023

Time	Item	Speaker
09:00	Welcome	KLM, DLR, CINEA
09:25	Introduction to GreAT project	DLR
10:00	DLR experiments incl. environmental impact assessment	DLR, UPM
10h45	Coffee break	
	DLR experiments - continue	DLR, UPM
12:00	Lunch	
13:00	HungaroControl experiments incl. environmental impact assessment	HungaroControl, UPM
15:00	DLR and HungaroControl demonstration tours	DLR, HungaroControl
16:00	Coffee break	
16:30	Summary of other findings	DLR
17:00	Conclusions	DLR, L-Up
17:30	End	

The objective of the GreAT 1-day final event organized at KLM premises in Amsterdam (NL), addressing all interested external parties, was to provide deeper insights into the findings of the research work and showcase the key concepts and proposals. The European partners of GreAT, namely DLR, HungaroControl and PildoLabs, presented and demonstrated new concepts and procedures for environmentally friendly yet efficient traffic management in the terminal area of medium-size and hub airports. UPM detailed the environmental impact assessment carried out.

6.2. COMMUNICATION

6.2.1. INVITATION LETTER



GreAT Project: Final Event

March 2023

Dear Madam, Sir,

We are delighted to invite you to the Final Event of the GreAT project. It will be held on 24 May 2023 at the KLM headquarters in Amsterdam. Online attendance will be possible as well.

GreAT (Greener Air Traffic Operations) is a Horizon 2020 project that started on 1 January 2020 and ends on 30 June 2023. GreAT's research focused on optimising air traffic control practices and procedures to minimise environmental impact.

GreAT has investigated various concepts and concept elements that enable or contribute to a Greener Air Traffic Management, including arrival / departure procedures at medium-size and hub airports, but also taxi operations on the airport surface as well as en-route traffic management. This research also included experiments to demonstrate the benefits of our ideas in a set of fast-time and real-time simulations.

After a project runtime of 42 months, GreAT comes to a close in summer 2023. In this larger final event that addresses all interested external parties, we will provide deeper insights into the findings of our research work and showcase our key concepts and proposals. Two major European partners of GreAT, namely DLR and HungaroControl, will present new concepts and procedures for environmentally friendly yet efficient traffic management in the terminal area of medium-size and hub airports.

Please find the agenda below. The event is free of charge. Please do not hesitate to circulate this invitation to your networks.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 875154 GreAT.

To prepare the event in the best possible way, please kindly confirm your attendance (full name, organization, email address, type of attendance (online or physical) – and eventually for visitors arriving by car, the car license plate).

Please send your registration by email to contact@project-great.eu by 15 May, 2023 (later replies accepted for on-line participants).

The physical event is limited to 50 persons. Online attendees will receive a link to the live stream the day before.

We remain at your disposal for any further questions (contact@project-great.eu).

Best regards,

Michael Finke / DLR
GreAT project coordinator
www.project-great.eu

Meeting location:

Amsterdamseweg 55
1182 GP Amstelveen, The Netherlands

Agenda:

Time	Item	Speaker
09:00	Welcome	KLM, DLR, CINEA
09:25	Introduction to GreAT project	DLR
10:00	DLR experiments incl. environmental impact assessment	DLR, UPM
10h45	Coffee break	
	DLR experiments - continue	DLR, UPM
12:00	Lunch	
13:00	HungaroControl experiments incl. environmental impact assessment	HungaroControl, UPM
15:00	DLR and HungaroControl demonstration tours	DLR, HungaroControl
16:00	Coffee break	
16:30	Summary of other findings	DLR
17:00	Conclusions	DLR, L-Up
17:30	End	



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 875154 GreAT.

6.2.2. LINKED IN TEASERS

6 teasers were published in GreAT LinkedIn page prior to the event:

Published on 23/3/23:



GreAT: Final Event on 24 May in Amsterdam

📅 The **H2020-GreAT** partnership is delighted to invite you to the Final Event of the project on **24 May 2023** at the **KLM Royal Dutch Airlines** headquarters in Amsterdam. Online attendance will be possible as well.

In this larger final event that addresses all interested external parties, we will provide deeper insights into the findings of our research work and showcase our key concepts and proposals.

Two major European partners of **H2020-GreAT**, namely **#DLR** and **#HungaroControl**, will present new concepts and procedures for environmentally friendly yet efficient traffic management in the terminal area of medium-size and hub airports.

The event is free of charge.

Please send your registration (full name, email address, type of attendance (online or physical) and birth date (if physical attendance) by email to contact@project-great.eu.

🕒 Registration deadline: 5 May 2023.

We look forward to seeing you in Amsterdam!

#aviation #greenaviation #H2020Transport #CINEA_EU #climatechange #ATM #EU_H2020 #airtrafficmanagement #airtrafficcontrol #ACACIA, #ClimOP, #h2020great #DLR #lup #HungaroControl #CIRA #Pildo #UPM #KLM

https://lnkd.in/eu_aBRft

GreAT: Final Event on 24 May in Amsterdam

project-great.eu • 1 min read

In this larger final event that addresses all interested external parties, we will provide deeper in...

Published on 19/4/23:



H2020-GreAT

99 followers

2mo • Edited • 

Discover Our New Airspace Design!

 5 weeks to go until **H2020-GreAT**'s final event on 24 May in Amsterdam!

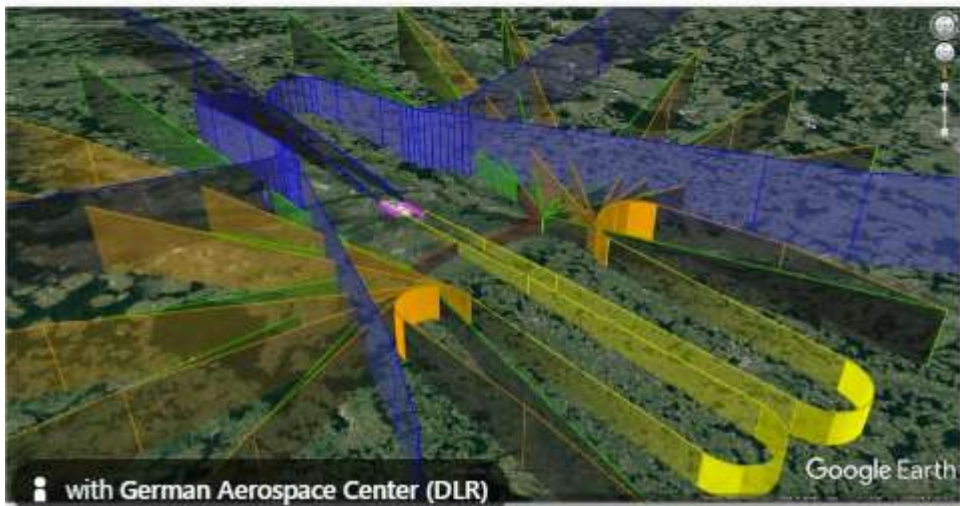
Here's our first sneak peek: The **H2020-GreAT** partners will be presenting a new airspace design that allows aircraft to fly as directly as possible, use their individual optimal approach profile and benefit from their 4D FMS on-board equipment.

Hybrid event, free of charge. More information + programme:

https://lnkd.in/ddJ4_neG

Registration at contact@project-great.eu.

#greenavigation #H2020Transport #CINEA_EU #climatechange #ATM #ATC
#EU_H2020 #SESAR #airtrafficmanagement #airtrafficcontrol #aviation



Published on 27/4/23:



H2020-GreAT

99 followers

2mo • Edited • 

Discover GreAT's New Controller Support Tools

🕒 4 weeks to go until **H2020-GreAT**'s final event on 24 May in Amsterdam! Curious about a demonstration of the new controller tools developed under **H2020-GreAT**? At the event in Amsterdam, you will be able to discover the new controller support functions:

- Ghosting
- TargetWindows
- Final Distance Indicator

Hybrid event; free of charge.

More information + programme https://lnkd.in/ddJ4_neG.

Registration at contact@project-great.eu.

[#greenaviation](#) [#H2020Transport](#) [#CINEA_EU](#) [#climatechange](#) [#ATM](#) [#ATC](#)
[#EU_H2020](#) [#SESAR](#) [#airtrafficmanagement](#) [#airtrafficcontrol](#) [#aviation](#)



Published on 4/5/23:



Up to 14% Fuel Burn Reduction During Taxiing

🕒 Three weeks to go until our final event on 24 May in Amsterdam, where you will be able to discover GreAT's Ground Movement Support System (TraMICS+) for greener taxi operations. TraMICS+ enables the display of 4D trajectories and generates recommendations (including visual indications) to assist ATCOs in identifying and prioritising next tasks.

Hybrid event; free of charge. More information and programme at https://lnkd.in/ddJ4_neG.

Registration at contact@project-great.eu.

#greenaviation #H2020Transport #CINEA_EU #climatechange #ATM #ATC #EU_H2020 #SESAR #airtrafficmanagement #airtrafficcontrol #aviation



Published on 10/5/23:



Discover the New Features of MergeStrip 3.0

🕒 2 weeks to go until H2020-GreAT's final event on 24 May in Amsterdam!

Curious to see a demonstration of the new MergeStrip 3.0 tool developed under H2020-GreAT? At our closing event in Amsterdam, you will be able to discover the new functionalities of the ATC decision support tool in the new extended TMA structure:

- AI-based threshold separation tool ("THR SepTool")
- "What-if" function
- AI-based sequencing and speed control advisory

Hybrid event; free of charge. More information + programme at

https://lnkd.in/eu_aBRft.

Registration at contact@project-great.eu.

#greenaviation #H2020Transport #CINEA_EU #climatechange #ATM #ATC
#EU_H2020 #SESAR #airtrafficmanagement #airtrafficcontrol #aviation



Published on 17/5/23:



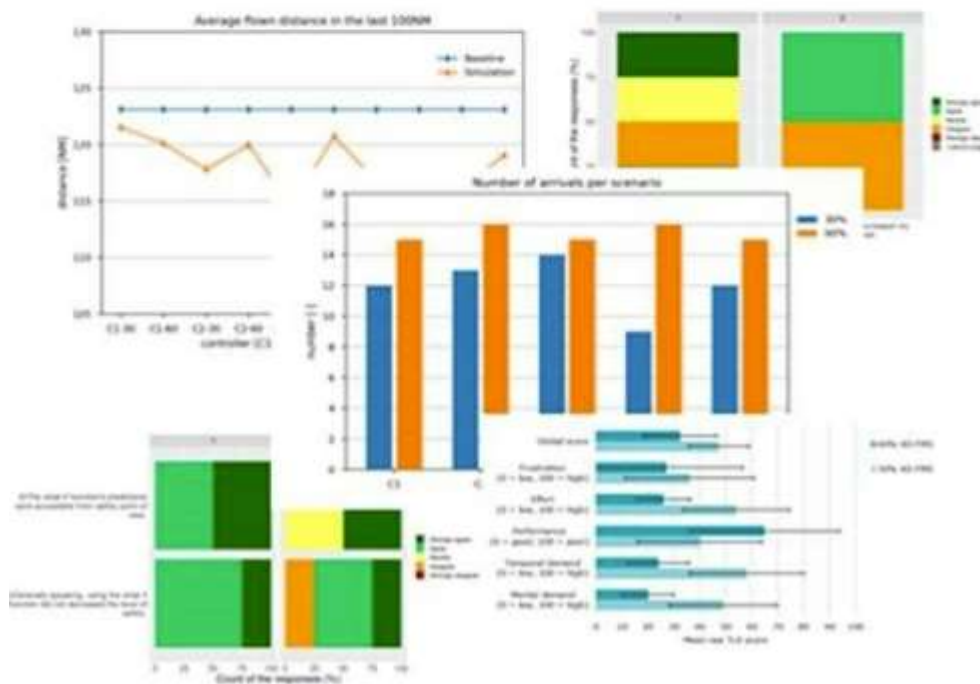
Discover the Validation Results of the GreAT Trials

🕒 Only 1 more week to go until **H2020-GreAT's** final event on 24 May in Amsterdam!

Curious about the different results collected and analysed under **H2020-GreAT**? At our closing event in Amsterdam, you will get an outlook on **H2020-GreAT's** results collected during the different trials. Join us in Amsterdam to learn more about **H2020-GreAT's** findings and recommendations!

Hybrid event; free of charge. More information + programme at https://lnkd.in/eu_aBRft.
Registration at contact@project-great.eu.

#greenaviation #H2020Transport #CINEA_EU #climatechange #ATM #ATC #EU_H2020 #SESAR #airtrafficmanagement #airtrafficcontrol #aviation



6.3. PARTICIPANTS

26 persons participated in the workshop either in Amsterdam or on-line.

6.4. OUTCOMES

Fruitful technical discussions and exchanges took place. The presentations can be found in GreAT Zenodo Community : <https://zenodo.org/communities/great/>.

Presentation	Link
<p>May 24, 2023 (VF) Presentation Open Access</p> <p>Greener Air Traffic Operations - The GreAT Project</p> <p>Huisman, Frans;</p> <p>Presentation at GreAT project Final Event in KLM Headquarters in Amsterdam (NL) on 24/5/23.</p> <p>Uploaded on May 26, 2023</p>	<p>https://zenodo.org/record/7973700</p>
<p>May 24, 2023 (VF) Presentation Open Access</p> <p>Greener Air Traffic Operations - The GreAT Project</p> <p>Finke, Michael;</p> <p>Presentation at GreAT project Final Event in KLM Headquarters in Amsterdam (NL) on 24/5/23.</p> <p>Uploaded on May 26, 2023</p>	<p>https://zenodo.org/record/7973706</p>
<p>May 24, 2023 (VF) Presentation Open Access</p> <p>Greener Short Haul Operations</p> <p>Temme, Marco-Michael; Abdellaoui, Rabeb; Stasioka, Izabela; Tyburzy, Lukas; Finke, Michael; Ehr, Heiko; A Thorsten; Boumann, Hilke;</p> <p>Presentation at GreAT project Final Event in KLM Headquarters in Amsterdam (NL) on 24/5/23.</p> <p>Uploaded on May 26, 2023</p>	<p>https://zenodo.org/record/7973714</p>
<p>May 24, 2023 (VF) Presentation Open Access</p> <p>Evaluation of Environmental Impact</p> <p>Benito, Arturo; Alonso, Gustavo;</p> <p>Presentation at GreAT project Final Event in KLM Headquarters in Amsterdam (NL) on 24/5/23.</p> <p>Uploaded on May 26, 2023</p>	<p>https://zenodo.org/record/7973732</p>
<p>May 24, 2023 (VF) Presentation Open Access</p> <p>Research by HungaroControl and PildoLabs. Wider context of developments</p> <p>Rajnai, Frigyes;</p> <p>Presentation at GreAT project Final Event in KLM Headquarters in Amsterdam (NL) on 24/5/23.</p> <p>Uploaded on May 26, 2023</p>	<p>https://zenodo.org/record/7974432</p>
<p>May 24, 2023 (VF) Presentation Open Access</p> <p>Research by HungaroControl and PildoLabs. Outcomes & Outlook</p> <p>Pasztor, Attila;</p> <p>Presentation at GreAT project Final Event in KLM Headquarters in Amsterdam (NL) on 24/5/23.</p> <p>Uploaded on May 26, 2023</p>	<p>https://zenodo.org/record/7974444</p>
<p>May 24, 2023 (VF) Presentation Open Access</p> <p>MergeStrip. Development and results</p> <p>Ramonjoan, Àlex;</p> <p>Presentation at GreAT project Final Event in KLM Headquarters in Amsterdam (NL) on 24/5/23.</p> <p>Uploaded on May 26, 2023</p>	<p>https://zenodo.org/record/7974462</p>
<p>May 24, 2023 (VF) Presentation Open Access</p> <p>GreAT - Summary of other findings</p> <p>Finke, Michael;</p> <p>Presentation at GreAT project Final Event in KLM Headquarters in Amsterdam (NL) on 24/5/23.</p> <p>Uploaded on May 26, 2023</p>	<p>https://zenodo.org/record/7974477</p>

<p>May 24, 2023 (VF) Presentation Open Access</p> <p>GreAT - Conclusions</p> <p>Finke, Michael;</p> <p>Presentation at GreAT project Final Event in KLM Headquarters in Amsterdam (NL) on 24/5/23.</p> <p>Uploaded on May 26, 2023</p>	<p>https://zenodo.org/record/7974487</p>
---	--

6.4.1. PRESS RELEASE

The following press release was published from the event:



GreAT Project Concludes Successfully, Making Air Traffic Greener and Reducing Climate Impact

On 24th May 2023, the 'Greener Air Traffic Operations' (GreAT) project held its final event. The project has made significant strides in optimizing air traffic control practices and procedures to minimize environmental impact.

One of the major achievements of the project is the substantial reduction in emissions across various flight operations and maneuvers. GreAT has demonstrated significant savings, amounting to several percentage points, for aerodrome ground traffic, arriving and departing traffic, as well as cruising flights. These accomplishments are a testament to the project's commitment to making air travel more sustainable.

The international team has investigated various concepts and concept elements that enable or contribute to a greener air traffic management. This includes arrival and departure procedures at medium-size

and hub airports, taxi operations on the airport surface as well as en-route traffic management. These efforts have culminated in fast-time and real-time simulations, validating the effectiveness of GreAT's ideas.

After a successful project runtime of 42 months, GreAT came to a close in summer 2023. In a larger final event, which took place on 24th May 2023 at KLM Headquarter in Amsterdam, the consortium presented in-depth insights into their research findings and unveiled key concepts and proposals. DLR as well as HungaroControl supported by PildoLabs, took the stage to showcase new environmentally friendly yet efficient traffic management procedures for the terminal areas of medium-sized and hub airports.

The findings and concepts generated by GreAT will serve as valuable resources for the aviation industry, paving the way for a more sustainable and environmentally conscious future.

About GreAT

The Greener Air Traffic Operations (GreAT) project was an ambitious research and innovation initiative funded under the Horizon 2020 framework. Launched on 1st January 2020, GreAT aimed to reduce the impact of air

transport on climate change by optimizing air traffic control practices and procedures.

The project was conducted by DLR (Germany), acting as project coordinator, HungaroControl – Hungarian Air Navigation Services (Hungary), Universidad Politécnica de Madrid (UPM, Spain), L-UP (France), Royal Dutch Airlines (Koninklijke Luchtvaart Maatschappij; KLM, Netherlands), the Italian Aerospace Research Centre (Centro Italiano Ricerche Aerospaziali; CIRA, Italy), and PildoLabs (Spain) on the European side. The GreAT project included coordinated activities with a consortium of six Chinese partners as well.

Contacts

Coordinator: Michael Finke / DLR

Project Management Officer:
Jetta Keränen / L-Up

mail: contact@project-great.eu
web : www.project-great.eu



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 875154 GreAT.

7. CONCLUSIONS

To increase visibility of the project and interaction with other EU-funded projects, and thus to trigger a cross-fertilization of the results, the consortium organised two workshops with the sister projects ACGA (ACACIA, ClimOP and ALTERNATE), in October 2021 and in May 2023.

In order to engage with external stakeholders, a final event of GreAT was organised in May 2023.

Further results and information on GreAT project can be found in :

- ➔ Project website: <https://www.project-great.eu/>, see also <https://www.project-great.eu/list-of-publications-28>
- ➔ LinkedIn: <https://www.linkedin.com/company/great-h2020/>
- ➔ Zenodo: <https://zenodo.org/communities/great/>
- ➔ By mail: [contact\(at\)project-great.eu](mailto:contact(at)project-great.eu)