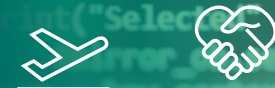
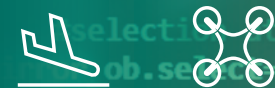
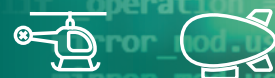


# SESAR 3 Joint Undertaking

## Joint Memorandum of Understanding



# Single European Sky ATM Research (SESAR) 3 Joint Undertaking

## Joint Memorandum of Understanding

### Stakeholder legal entity names

Aéroports de Paris S.A.	Leonardo S.p.A.
Airbus	Lilium GmbH
Air France, as part of the A4 Airline Grouping	Lufthansa, as part of the A4 Airline Grouping
Air Navigation Services of the Czech Republic	Luchtverkeersleiding Nederland (LVNL)
AT-One	NATMIG <sup>4</sup>
Boeing Research & Technology	NATS (en route) Plc (NERL) <sup>5</sup>
Borealis Alliance	Office National d'Etudes et de Recherches Aérospatiales (ONERA)
C.I.R.A. S.C.p.A. Centro Italiano Ricerche Aerospaziali	Polish Air Navigation Services Agency (PANSa)
COOPANS <sup>1</sup>	Pipistrel Vertical Solutions d.o.o.
DFS Deutsche Flugsicherung GmbH	Ryanair DAC, as part of the A4 Airline Grouping
Droniq, on behalf of and as part of the Alliance for New Mobility Europe <sup>2</sup>	Safran
Drone Alliance Europe	SESAR European Airports Consortium (SEAC) <sup>6</sup>
Direction des Services de la navigation aérienne (DSNA)	Skyguide
easyJet Europe, as part of the A4 Airline Grouping	Thales AVS France SAS
École Nationale de l'Aviation Civile (ENAC)	Thales LAS France SAS
Entidad pública empresarial ENAIRE	Uber
ENAV S.p.A.	Unify NV, as part of the Alliance for New Mobility Europe
EUROCONTROL	United Technologies Research Centre Ireland, Ltd.
European Space Agency	Volocopter GmbH
Frequentis AG	VTT Technical Research Centre of Finland Ltd
Hamburg Aviation e.V.	
Heathrow Airport Limited <sup>3</sup>	
Honeywell International s.r.o.	
HungaroControl Pte. Ltd. Co	
Indra Sistemas, S.A.	
Lenuliiklusteeninduse A.S. (EANS)	

<sup>1</sup> COOPANS current members: Austro Control, Croatia Control, Irish Aviation Authority, Luftfartsverket (LFV), Naviar and NAV Portugal

<sup>2</sup> Alliance for New Mobility Europe current members: Droniq, Unify and Unisphere

<sup>3</sup> The participation of UK entities in the Joint Undertaking is subject to the outcome of the negotiations between the EU and the UK and the conclusion of an association agreement related to the Horizon Europe programme.

<sup>4</sup> NATMIG current members: Airtel, Saab and SINTEF

<sup>5</sup> The participation of UK entities in the Joint Undertaking is subject to the outcome of the negotiations between the EU and the UK and the conclusion of an association agreement related to the Horizon Europe programme.

<sup>6</sup> SEAC current members: Heathrow Airport Ltd, Flughafen München GmbH, Schiphol Nederland B.V., Aéroports de Paris S.A., Flughafen Zürich AG, Swedavia and Avinor

## Single European Sky ATM Research (SESAR) 3 Joint Undertaking

### Joint Memorandum of Understanding

Whereas the Parties, expressing their intention under the current understanding of the matters described herein, listed above

- Are committed to achieving the Union's strategic priorities, in particular to reduce greenhouse gas emissions by 2030 according to the targets set in line with the European Green Deal and a Europe fit for the Digital Age.
- Are committed to achieving the European ATM Master Plan vision for a Digital European Sky.
- Are committed to the following general objectives of the Single European Sky ATM Research (SESAR) 3 Joint Undertaking ('the Joint Undertaking'):
  - to strengthen and integrate the Union's research and innovation capacity in the ATM sector, helping bring the European ATM into the digital age to make it resilient, scalable to fluctuations in traffic while enabling the seamless operation of all aircraft;
  - to strengthen, through innovation, the competitiveness of manned and unmanned air transport in the Union, and ATM services' markets to support economic growth in the Union;
  - to develop and accelerate the market uptake of innovative solutions to establish the Single European Sky airspace as the most efficient and environmentally friendly sky to fly in the world.
- Acknowledge that the Strategic Research and Innovation Agenda (SRIA) for the Digital European Sky complements the European ATM Master Plan and the High-Level Partnership proposal.
- Understand that the SRIA has been the subject of public consultation and discussions with the European Commission as a component of the Horizon Europe Framework Programme and the Commission has indicated its broad acceptance of the content.
- Endeavour to make the financial and other commitments identified below to enable the implementation of the SRIA through their participation in the SESAR 3 Joint Undertaking.
- Note that the legal framework and the conditions of the future Joint Undertaking are yet to be established by the legislator and are aware that joining the Joint Undertaking will be subject to unconditionally accepting these conditions.
- Understand that before the final adoption of the Long-Term Union Budget, of the Horizon Europe Regulation and of the Single Basic Act, the Commission is not yet in a position to make a firm commitment to the funding and content of the Joint Undertaking.
- Underline that their commitments are subject to the decision of the Council of the European Union to establish the Joint Undertaking with the European Commission as public partner on behalf of the European Union and to allocate Union funds to support the work of the Joint Undertaking for its duration and to the approval of the Governing bodies of potential partners.
- Note that their required financial commitment is subject to the amount and conditions of Union funding that will be allocated to the Joint Undertaking and to its confirmation, through the adoption of the relevant Council Regulation, following the outcome of the legislative process.
- Understand that the future Joint Undertaking will build on the success and the momentum generated by the current SESAR Joint Undertaking to deliver the Digital European Sky, making air transport smarter, more sustainable, connected and accessible to all civil and military airspace users, including new entrants.

- Are committed to implement the SRIA and facilitate their timely uptake into deployment by supporting the related industrialisation processes.
- Declare to have, with their constituent or affiliated entities, all the necessary resources, capabilities, expertise to perform thoroughly the required research, development and demonstration activities enabling the Joint Undertaking to deliver the objectives of the SRIA.
- Are committed, together with the European Commission and via the Joint Undertaking, to engaging the wider ATM & U-space stakeholders' eco-system and supply chain of EU Member States and Associated Countries for their indispensable contributions to the Joint Undertaking.
- Acknowledge that their commitment stated herein will be subject to signing a final letter of commitment to confirm the acceptance of the terms and conditions of participation to the Joint Undertaking.

The Parties enter into this Memorandum of Understanding to express their support to the objectives of the Joint Undertaking and to demonstrate their commitment to the research & innovation programme outlined in the SRIA and to achieving its objectives, based on the following assumptions:





- the Joint Undertaking will act as a Chief 'innovation architect' for ATM infrastructure, ensuring shared roadmaps and cooperating with other European Research and Innovation Partnerships, Horizon Europe clusters, and EU programmes, national research and innovation programmes;
- the overall investments needed in the context of the Joint Undertaking are estimated to be in the order of up to EUR 2.9 billion;
- the European Organisation for the Safety of Air Navigation (EUROCONTROL), represented by its Agency expressed its interest to contribute to the partnership and to invest up to EUR 500 million as founding Member.
- the private Parties express their intention to invest an amount matching the funding allocated by the Union for the initiative from the Horizon Europe Programme, contributing collectively [EUR 500-700 million<sup>7</sup>]. This investment would constitute the private (non-institutional) contribution to the budget of the Joint Undertaking.
- the administrative costs of the Joint Undertaking are estimated to be of up to 5% of the total budget of the Joint Undertaking, split between the Union, Eurocontrol and the Private partners proportional to their investment in the JU;
- In-kind contributions will be subject to the level of participation to the Joint Undertaking's projects/indirect actions and to the amount of Union funding that will be granted under the open calls for proposals launched by the Joint Undertaking;
- fair and reasonable direct representation of the Parties in the governing structure of the Joint Undertaking with adequate representation and voting rights (proportional to their contribution to the budget of the Joint Undertaking) will be ensured;
- the private contribution model, the in-kind contribution methodology and IPR rules should not hinder the attractiveness of the initiative, nor prevent stakeholders such as RTOs,

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<sup>7</sup> Final amount of the Union participation that should be matched is to be decided by the Council of the EU.

Academia, Airspace Users, relevant Service Providers, and SMEs from participating and engaging in the Partnership.

The total estimated joint contributions of the Parties over the 10 years expected duration of the Joint Undertaking comprise: (i) direct in-kind contributions to operational costs as calculated via the projects; (ii) in-kind additional activities stemming from significant additional investments, including activities covering the non-funded part of the project, but still contributing to work packages; (iii) financial contributions to administrative costs of the Joint Undertaking.

Aéroports de Paris S.A.		October 29th, 2020 Franck le GALL  Chief Airport Operations Officer
Airbus		AIRBUS Guillaume FAURY CEO 29/10/2020 
Air France (A4 Airline Grouping)		 Alain Herve Bernard Air France C.O.O. 29/10/2020
Air Navigation Services of the Czech Republic	 Air Navigation Services of the Czech Republic	 Jan Klas Director General
AT-One		P.L.J. Eijssen 2020.10.27 16:14:08 +01'00' 







		<p><b>Dirk Kuegler</b></p> <p>Prof. Dr.-Ing Dirk Kuegler AT-One, General Manager DLR, Director of Flight Guidance Institute</p> <p><small>Digitally signed by Dirk Kuegler DN: cn=Dirk Kuegler, o=DLR, ou=Deutsches Zentrum für Luft- und Raumfahrt e.V., email=dirk.kuegler@dlr.de, c=DE Dirk Kuegler Dirk Kuegler has generated this document with my electronic signature Date: 2010.10.20 13:43:42 eDoc Manager-PDF Version: 9.7.1</small></p>
Boeing Research & Technology		 Mónica Miñana Finance Director
Borealis Alliance		 Reynir Sigurðsson Executive Director  Date: 30/10 2020  Ann Persson-Grivas Chairman of the Board
C.I.R.A. S.C.p.A. Centro Italiano Ricerche Aerospaziali		Morsillo Giuseppe President  Firmato digitalmente da: Giuseppe Morsillo Data: 03/11/2020 13:35:09
COOPANS		Irish Aviation Authority Name: Peter Kearney Title: Chief Executive Officer Date: 26 <sup>th</sup> October 2020 Signature:  Luftfahrtverket; LfV Name: Ann Persson Grivas Title: Director General Date: 26/10 2020 Signature: 

		<p><b>Naviair</b> Name: Carsten Fich Title: Chief Executive Officer Date: 28.10.20 Signature: </p> <p><b>Croatia Control Ltd</b> Name: Vlado Bagarić Title: Director General Date: 27.10.2020. Signature: </p> <table><tr><td><p><b>Austro-Control Österreichische Gesellschaft für Zivilluftfahrt mbH</b> Name: Hubert Waller Title: Authorized Officer Date:  Signature: </p></td><td><p><b>Austro-Control Österreichische Gesellschaft für Zivilluftfahrt mbH</b> Name: Axel Schwarz Title: Managing Director Date:  Signature: </p></td></tr></table> <table><tr><td><p><b>NAVEGAÇÃO AÉREA DE PORTUGAL - NAV Portugal E.P.E</b> Name: Manuel Tenreiro Rols Title: CEO Date:  Signature: </p></td><td><p><b>NAVEGAÇÃO AÉREA DE PORTUGAL - NAV Portugal E.P.E</b> Name: Egídio Queiroz Martins Title: Member of the Board Date:  Signature: </p></td></tr></table>	<p><b>Austro-Control Österreichische Gesellschaft für Zivilluftfahrt mbH</b> Name: Hubert Waller Title: Authorized Officer Date:  Signature: </p>	<p><b>Austro-Control Österreichische Gesellschaft für Zivilluftfahrt mbH</b> Name: Axel Schwarz Title: Managing Director Date:  Signature: </p>	<p><b>NAVEGAÇÃO AÉREA DE PORTUGAL - NAV Portugal E.P.E</b> Name: Manuel Tenreiro Rols Title: CEO Date:  Signature: </p>	<p><b>NAVEGAÇÃO AÉREA DE PORTUGAL - NAV Portugal E.P.E</b> Name: Egídio Queiroz Martins Title: Member of the Board Date:  Signature: </p>
<p><b>Austro-Control Österreichische Gesellschaft für Zivilluftfahrt mbH</b> Name: Hubert Waller Title: Authorized Officer Date:  Signature: </p>	<p><b>Austro-Control Österreichische Gesellschaft für Zivilluftfahrt mbH</b> Name: Axel Schwarz Title: Managing Director Date:  Signature: </p>					
<p><b>NAVEGAÇÃO AÉREA DE PORTUGAL - NAV Portugal E.P.E</b> Name: Manuel Tenreiro Rols Title: CEO Date:  Signature: </p>	<p><b>NAVEGAÇÃO AÉREA DE PORTUGAL - NAV Portugal E.P.E</b> Name: Egídio Queiroz Martins Title: Member of the Board Date:  Signature: </p>					
DFS Deutsche Flugsicherung GmbH	 <b>DFS Deutsche Flugsicherung</b>	Langen, 29.10.2020 i.V. Guido Jochims 				
Droniq (Alliance for New Mobility Europe)	 <b>DRONIQ</b>	 Rüdiger Schupp COO  Droniq GmbH Glenholzer Stadtweg 58 69469 Frankfurt am Main www.droniq.de  Jan-Eric Putze CEO				
Drone Alliance Europe	 <b>DRONE ALLIANCE EUROPE</b>	30-10-2020 (stakeholder legal entity name) Ben Gielow President Drone Alliance Europe 				

Direction des Services de la navigation aérienne (DSNA)	 	23.10.2020  Maurice GEORGES
easyJet Europe (A4 Airline Grouping)		 Peter Bellew – Chief Operating Officer
École Nationale de l'Aviation Civile (ENAC)		Le Directeur des Etudes et de la Recherche  Mathy GONON
Entidad pública empresarial ENAIRE		Madrid, October the 30 <sup>th</sup> 2020  D. Ángel Luis Arias Serrano Director General
ENAV S.p.A.		Paolo Simioni 











EUROCONTROL		Date: 27/10/20 Signature:  Eammon Brennan Director General
European Space Agency		 Elodie Viau Director of Telecommunications and Integrated Applications
Frequentis AG		 Hermann Mattanovich Member of the Executive Board   Michael Holzbauer Director European Affairs & ATM Programs
Hamburg Aviation e.V.		.....Hamburg Aviation e.V..... .....Wexstr. 7, 20355 Hamburg.....
Heathrow Airport Limited		Dale Reeson Head of Airport Operations and Airspace 

Honeywell International s.r.o.		23-Oct-2020 Oliver Stucky VP GM HTS Czech Republic Honeywell International Inc. <small>DocuSigned by: Oliver Stucky 68021F686A44D</small>
HungaroControl Pte. Ltd. Co		 Szilárd GOMBOS Acting Director of Business Development HungaroControl Pte. Ltd. Co.
Indra Sistemas, S.A.		Firmado por GALLEGO CARBONELL, RAFAEL JUAN (FIRMA) el día 28/10/2020 con un certificado emitido por AC DNIE 009 
Lenuliiklusteeninduse A.S. (EANS)		 Ivar Värk Chairman of Management Board, CEO
Leonardo S.p.A.		<b>LEONARDO</b> S.p.A. General Manager (Lucio Valerio Clorff)  30/10/2020
Lilium GmbH		Marie Masson Public Affairs and B2G Manager at Lilium 30/10/2020, Munich
Lufthansa (A4 Airline Grouping)	 <b>Lufthansa</b>	 

Luchtverkeersleiding Nederland (LVNL)		Name of legal representative: Michiel Wilhelmus Anna van Dorst  Signature of legal representative: 
NATMIG		 ..... Trond Runar Hagen
NATS (en route) Plc (NERL)		  David Curtis Director Airspace and Future Operations NATS SESAR Administrative Board Member
Office National d'Etudes et de Recherches Aérospatiales (ONERA)		p.o. Thérèse Donath Deputy General Technical Director October 30, 2020 
Polish Air Navigation Services Agency (PANSA)	 <b>POLSKA AGENCJA ŻEGLUGI POWIETRZNEJ</b> <b>POLISH AIR NAVIGATION SERVICES AGENCY</b> <b>www.pansa.pl</b>	  Acting President of Polish Air Navigation Services Agency  Janusz Janiszewski
Pipistrel Vertical Solutions d.o.o.		Ivo Boscarol, CEO  PIPISTREL VERTICAL SOLUTIONS d.o.o.

Ryanair DAC (A4 Airline Grouping)		Ryanair DAC 
Safran		 Stéphane COËLLE Senior Executive Vice-President and Chief Technology Officer
SESAR European Airports Consortium (SEAC)		 Frank Pötsch (Legal Coordinator) MÜNCHEN, 04 NOV 20
Skyguide		 Klaus Meier, CIO
Thales AVS France SAS Thales LAS France SAS		THALES AVS France SAS President, Mrs Yannick ASSOUD   Thales LAS France SAS Jean FERRE Vice President Airspace Mobility Solutions
Uber		Uber France Software & Development SA  Name: <u>Sebastien Serge Dupont</u>

Unifly NV (Alliance for New Mobility Europe)		<p>Leon van de Pas Chief Executive Officer</p>  <p>Unifly nv 23 October 2020</p>
United Technologies Research Centre Ireland, Ltd.		<p>United Technologies Research Centre Ireland, Ltd. 4<sup>th</sup> Floor, Penrose Business Centre, Penrose Wharf, Cork T23 XN53, Ireland</p> <p>Cork, Ireland 29 October 2020</p> <p> Raymond Foley Site Director</p>
Volocopter		<p>(stakeholder legal entity name)</p>  <p>Florian Reuter .....</p> <p>CEO .....</p> <p>Volocopter GmbH .....</p>
VTT Technical Research Centre of Finland Ltd		 <p>Name: Erja Turunen Title: Executive Vice President Date and place: 27<sup>th</sup> October 2020 in Espoo, Finland</p>



**AIRBUS**

**AIRFRANCE**

 **Air Navigation Services**  
of the Czech Republic

 **AT-One**

 **BOEING**

**borealis**  
ALLIANCE

 **CIRA**  
Italian Aerospace Research Centre

 **COOPANS**  
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 **DFS** Deutsche Flugsicherung

**DRONIQ**

 **dgac**  
DSNA

 **EANS**

 **easyJet**

 **ENAC**

**ENAIRe**

 **enav**

 **EUROCONTROL**

 **esa**

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