

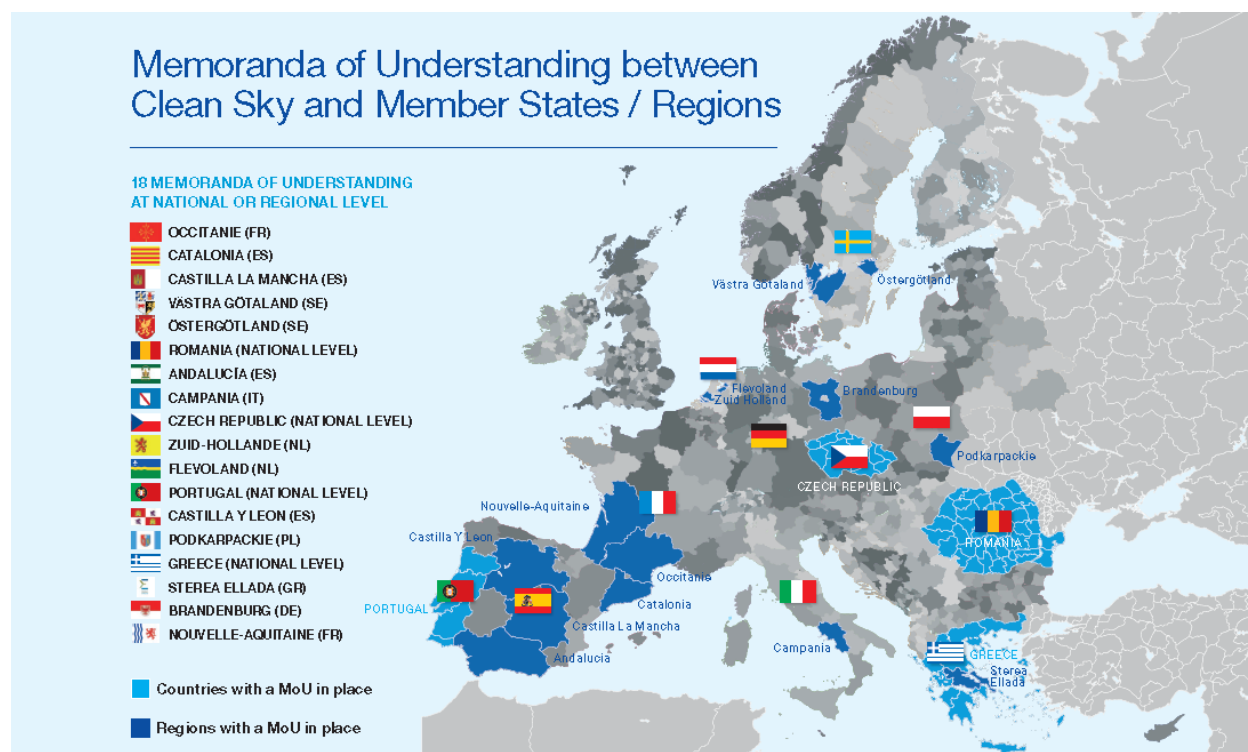


Clean Sky 2 Joint Undertaking Synergies with Member States and Regions

(October 2022)

Clean Aviation Joint Undertaking (JU) builds on the experience gained from the Clean Sky 2 Joint Undertaking steps up its efforts to capitalise on synergies and complementarities with national and regional R&I programmes and extend its network of collaborating Member States and Regions at both strategic and operational levels.

Clean Sky 2 Joint Undertaking had fostered strategic collaborations with Member States and regions largely through leveraging synergies with the European Structural and Investment Funds (ESIF). Since the launch of this pilot programme in 2015, 18 Memoranda of Understanding had been signed at national or regional level.



Through the 18 MoUs, 52 pilot projects were launched with a total budget of more than €50m (see Table 1). In addition, 12 Clean Sky Synergy Labels have been awarded. These quality labels were awarded to complementary activities proposed by Clean Sky 2 beneficiaries, and they enabled those activities to be supported for funding by ESIF.



By the end of 2020, the following progress was made by the Joint Undertaking (JU):



MoU implementation action plan

At the strategic level, the Clean Sky 2 JU had an action plan for leveraging synergies with Member States and regions that were interested in investing ESIF or other national funds into the aeronautics area and other related technologies in this domain. Close interactions with the interested Member States and regions in Europe had been developed, based on the priorities set out in national programmes or Smart Specialisation Strategies (RIS3). As a result of this strategic cooperation, a number of Member States and regions had launched calls and funding schemes that either had included topics dedicated to aeronautics that are synergetic to Clean Sky or incentivised the submission of proposals complementary to JU's activities and objectives.

Examples of national/regional calls launched linked to the Clean Sky 2 programme:

Campania (IT)

A second regional call was launched during 2020, allocating € 15m of available funding for regional aeronautics priorities aligned to the Clean Sky 2 programme. The aim was to fund enabling systems and technologies in aeronautics to accelerate innovation processes in the local industry. Until the end of 2020, nine pilot projects had been supported by the two regional calls.

The region had been also committed €10m, as a first financial allocation, to support regional stakeholders in their possible members' role and activities on the Clean Aviation "SRIA" with funding mechanisms to be agreed and designed with the JU.

Occitanie (FR)

The regional call 'Readynov' included a part dedicated to aeronautics and related industries. The call covered a number of topics related to aeronautics technologies in line with RIS3 priorities, and aims to support proposals linked to Clean Sky 2 topics. By end of 2020, this call had supported eight pilot projects with a budget of around €4.5m.

Podkarpackie (PL)

Under the Priority 1: 'Competitive and innovative economy', action 1.2 'Industrial research, development works and their implementation', the regional managing authority launched a call for stakeholders representing the aviation industry from the Podkarpackie region. This call included specific research topics aligned with the Clean Sky 2 Work Plan and additional evaluation points for projects showing alignment to Clean Sky 2.

Romania

A national open submission scheme launched in early 2016 by the National Authority for Scientific Research and Innovation of Romania (ANCSI) supported a number of complementary projects to Clean Sky 2 activities with a total budget of €5.5m. Two of these complementary projects were awarded the Clean Sky Synergy Label.



Czech Republic

The Ministry of Industry and Trade of the Czech Republic launched a complementary call to Clean Sky 2 in 2017, under the national programme 'Aplikace', as a result of the MoU cooperation. The call aimed to support R&I projects complementary to Clean Sky 2's work plan and had a total budget of around €15.5m.

Greece

A funding scheme, within the framework of the MoU, was launched to support complementary activities to Clean Sky 2 calls with a budget of €2m. This scheme aims to support either proposals with a Clean Sky Synergy Label, or proposals highly ranked in the reserve list of the last Clean Sky calls.

Portugal

The Innovation National Agency (ANI) launched the national call 'AVISO' which included possible support for complementary activities to Clean Sky 2. Two projects have been supported so far with a budget of around €5.9m, in the context of the MoU cooperation.

Examples of projects developed thanks to the MoUs and supported by ESIF under the MoUs' cooperation:

Modular Iron Bird (MIB): a project supported by Campania region, with a budget of €1.84m aiming to develop an advanced test for the flight controls equipment and/or actuators of different types of medium-small aircrafts.

Development works on preparation and implementation of technology for the production of aviation units with an integral thin-walled structure: a project supported by the Podkarpackie (PL) Operational Programme in 2020, with a budget of around €1.7m. The project was a complementary proposal in a Clean Sky 2 topic in the Airframe platform.

Reuse of Composites for high performance Applications (ReCAP): was a Portuguese complementary activity to the targeted developments on new composite technologies for aircraft structures and components. The project, with a budget of around €2.36m, was aligned with the Clean Sky 2 high-level objectives for structures.

Development of Press-Forming Conforming Processes for Pre-Impregnated Fabrics of High Thickness (ANNPRESS): a pilot project supported by Castilla La Mancha (ES) region with a budget of €250k. The project activities were planned under Airframe and Large Passenger Aircraft platforms.

FIA: was a project supported by the Västra Götaland (SE) region with a budget of €400k that aims at setting up a flexible automation cell to be used for the manufacturing of lightweight structural engine parts for the engine demonstrators in Clean Sky 2.

BRAMETAL: a project awarded by the Occitanie (FR) region that aims at new processes for metal-alumina brazing in the Large Passenger Aircraft and Airframe areas, with a budget of €820k.

Composite Automation Development Centre (CADC): a regional project supported by the Regional



Development Funds [EFRO] in South Holland. This project had a budget of €4.25m, and demonstrated strong synergies with activities in the Large Passenger Aircraft and Airframe platforms.

Examples of projects awarded the “Clean Sky Synergy Label” and supported by ESIF under the MoUs’ cooperation:

DADTOFLY: was a complementary activity to the Clean Sky topic ‘Ultra-High Aspect Ratio wings’ under the 10th Call for Proposals. This was submitted for funding in the Greek national Call that was dedicated to Clean Sky 2 programme. The project budget was €250,000 while the maximum possible ESIF contribution for this Clean Sky project was about €500,000.

INFRASEAL: was a complementary proposal which was linked to the project ‘AIRSEAL’ that was selected for funding under the 8th Call for Proposals within the Engine topic "Airflow characterization through rotating labyrinth seal". This proposal, with a budget of approx. €2,000,000, was submitted for funding under the Romanian national scheme, and had been also supported by the Minister of Research and Innovation.

OSIRIS: was a complementary activity linked to the project ‘SENSORIANCE’ that was selected for funding under the 6th Call for Proposals, within the System topic “Affordable Electro-Optical Sensor Cluster”. This proposal had a budget of €528,240 and was submitted for funding under the Andalucía (ES) regional funding scheme for ESIF proposals.

REMASTER: this proposal was linked to the Clean Sky project ‘InnoSTAT’ that was selected for funding under the 9th Call for Proposals, within the Large passenger Aircraft topic “Innovative low noise fan stator technologies for 2030+ power-plants”. This proposal, with a budget of €1,467,500, was submitted for funding under the Romanian national call for Clean Sky activities.



Table 1: Detailed list of pilot projects

Project acronym	Budget	National/Regional Authority
PROGETTAZIONE E SVILUPPO DI DEVICES INNOVATIVI PER APPLICAZIONI DI SANIFICAZIONE AMBIENTALE PER AMBIENTI INDOOR "ANTIMICROBIAL NANOCRYSTALLINE COATED SYSTEMS"	€ 1,532,500	Campania Region
FIRE – SVILUPPO DI PROTEZIONE AL FUOCO BASATO SU FOGLI DI GRAFENE	€ 1,401,694	Campania Region
CADIRA	€ 1,930,737	Campania Region
DoDo – Door to Door	€ 1,062,924	Campania Region
SIGMA	€ 1,100,505	Campania Region
DOOR 4.0	€ 1,142,610	Campania Region
MIB	€ 1,841,386	Campania Region
FIST	€ 512,310	Campania Region
T-TECH		Campania Region
FLIP2	€ 278,000	Occitanie Region
CRO2	€ 700,000	Occitanie Region
ICORE2.0	€ 800,000	Occitanie Region
MAGNESIA	€ 882,816	Occitanie Region
FASTER	€ 479,055	Occitanie Region
ACOVIB	€ 573,278	Occitanie Region
BRAMETAL	€ 820,374	Occitanie Region
SURFCONTROLBIO		Occitanie Region
SAINT	€ 200,300	Regional Council of Provence Alpes Cotes d'Azur
CADC	€ 4,250,000	Zuid-Hollande Region
ARGOS	€ 598,000	Ministry of Industry and Trade of the Czech Republic
Development of modern aircraft engine control systems	€ 465,000	Ministry of Industry and Trade of the Czech Republic
Replacement of chromate (Cr6 +) and cadmium surface corrosion protection of aviation materials	€ 893,500	Ministry of Industry and Trade of the Czech Republic
New generation of highly efficient VHF / UHF amplifiers for telemetry and aircraft communications	€ 354,200	Ministry of Industry and Trade of the Czech Republic
Automation of formal verification	€ 493,400	Ministry of Industry and Trade of the Czech Republic
Development of an effective platform for environmental monitoring and rescue missions	€ 1,060,000	Ministry of Industry and Trade of the Czech Republic
RoRCraft	€ 1,930,000	Romania National Authority for Scientific Research and Innovation
INFRASEAL	€ 1,986,000	Romania National Authority for Scientific Research and Innovation
REMASTER	€ 1,467,500	Romania National Authority for Scientific Research and Innovation
DORIC	€ 1,500,000	Romania National Authority for Scientific Research and Innovation
MOSHO	€ 1,100,000	Portuguese National Innovation Agency
GAVIÃO	€ 3,451,845	Portuguese National Innovation Agency
ReCAP	€ 2,358,792	Portuguese National Innovation Agency
Development works on preparation and implementation of technology for the production of aviation units with an integral thin-walled structure	€ 1,697,588	Podkarpackie ROP
REPLAB	€ 2,118,000	Swedish Agency for Economic and Regional Growth (Västra Götaland region)
Additive manufacturing lab	€ 1,700,000	Swedish Agency for Economic and Regional Growth (Västra Götaland region)
FIA	€ 400,000	Swedish Agency for Economic and Regional Growth (Västra Götaland region)
SVIFFT	€ 1,300,000	Swedish Agency for Economic and Regional Growth (Västra Götaland region)
SPRINGBOARD	€ 2,075,356	Swedish Agency for Economic and Regional Growth (Västra Götaland region)
REPLAB-2	€ 810,283	Swedish Agency for Economic and Regional Growth (Västra Götaland region)
IMA	€ 800,000	Swedish Agency for Economic and Regional Growth (Östergötland Region)
ACES		Swedish Agency for Economic and Regional Growth (Östergötland Region)
Digitazion coordinator focusing on 3D/AM		Swedish Agency for Economic and Regional Growth (Östergötland Region)
ANNPRESS	€ 246,207	Castilla La Mancha Region
MULTIDRILL	€ 335,000	Castilla La Mancha Region
GRECO	€ 249,977	Castilla La Mancha Region
SHEAREN	€ 361,150	Cataluña Region
DRYFORMING	€ 189,010	Cataluña Region
OSIRIS	€ 528,480	Andalucía Region
HEPODIS	€ 200,262	Andalucía Region
SHERLOC		Andalucía Region
FLASH	€ 275,516	Andalucía Region
DADTOFLY	€ 250,000	GREECE, GSRT
	€ 50,457,594	

Note: For T-Tech (Campania Region), SURFCONTROLBIO (Occitanie Region) and SHERLO (Andalucia Region), the JU was not informed about the final project budget. The two projects funded under the Östergötland Region (SE) were supporting activities related to the CS programme.