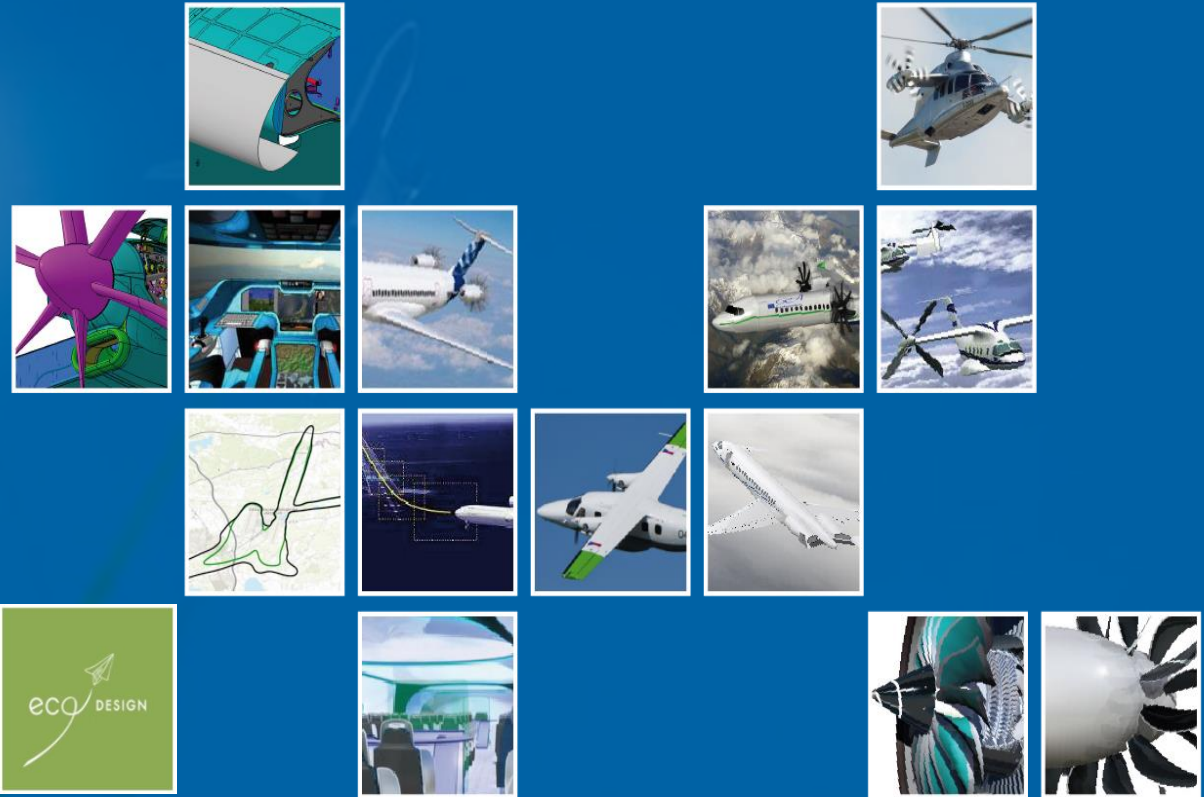


The Clean Sky 2 Programme: Progress overview and CfP10 Call



*Info Day Toulouse,
07 May 2019*

*Ron van Manen
CS2 Programme Manager*



Tackling key environmental challenges

Environmental Objectives*



TO -20%
-30%



TO -20%
-30%



TO -20%
-30%

* vs today's best aircraft



While building industrial leadership and ensuring mobility



The CS2 'Family' - Impressive figures to date

1477 participations (over 800 unique entities)



334

INDUSTRY MEMBERS



420

SMES



373

RESEARCH CENTRES



350

UNIVERSITIES



28

COUNTRIES



110

REGIONS



>466

GRANTS



Areas of Intervention

- Breakthroughs in Propulsion Efficiency
- Advances in Wings and Aerodynamics
- Novel Aircraft Configurations
- Innovative Structures and Production Systems
- Future Cockpit and Flight Guidance Systems
- More Electric Aircraft & Systems
- Optimal Passenger Environment



Clean Sky 2 Programme Set-up

EU Funding: ~1.8bn€
Private Members:
~2.2bn€

Innovative Aircraft Demonstrator Platforms (IADPs)



Large Passenger Aircraft



Regional Aircraft



Fast Rotorcraft

Integrated Technology Demonstrators (ITDs)



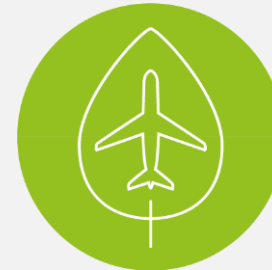
Airframe ITD



Engines ITD



Systems ITD



Eco-Design



Small Air Transport



Technology Evaluator

Transverse Activities (TAs)

CS2 Major Demonstrators

Breakthroughs in Propulsion Efficiency



Very High Bypass Ratio (VHBR) Large Turbofan
TRL 6 - 2023



Ultra-High Propulsive Efficiency (UHPE)
TRL 5+ - mid-2022



Advanced Geared Engine Configuration (HPC and LPT technology demonstration)
TRL 5 - 2023



Business aviation / short range Regional Turbo-prop
TRL 5 - 2022



Light weight and efficient Jet-fuel reciprocating engine [Small Aero-Engine]
TRL 6 - 2019



Reliable and more efficient operation of small turbine engines [Small Aero-Engine]
TRL 6 - 2019



Hybrid Propulsion Ground Test Bench
2020



Novel Aircraft Configuration & Scaled Flight Test
2021

Advances in Wings and Aerodynamics



Adaptive Wing Integrated Demonstrator Flying Test Bed
2022



Integrated Wing Technologies Flying Test Bed
2020 & 2023



Advanced Laminar Flow on Wings and Empennage



Laminar Nacelle Virtual
TRL 5 - 2019

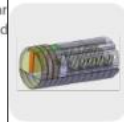
Innovative Structures and Production Systems



Advanced Rear End Demonstrator
2023



Next Generation Multifunctional Fuselage Demonstrator automated cabin assembly & structure integration



Regional Aircraft Fuselage / Pax Cabin Integrated Demonstrator



Advanced Small Aircraft Wing Box in Out-of-Autoclave CFRP
2020



Functional Cabin & Cargo Demonstrator of new integrated systems



Advanced Lower Center Fuselage Demonstrator



Affordable aerostructures for Small Air Transport

Future Cockpit and Flight Guidance Systems



Disruptive Cockpit Demonstrator (Function preparation test)
2023



Active Regional Cockpit
2020



BizJet Enhanced Cockpit Concept
2022



Avionics for Extended Cockpit Demonstrator -
2020



Affordable SESAR Compliant cockpit for Small Aircraft

More Electric Aircraft & Systems



Regional Aircraft 'Iron Bird' Systems Integration - 2021



Innovative Electrical Wing - 2021



Electric Drive Landing Gear System [E-LDG]



Advanced Electrical Environmental Control System [E-ECS] Demonstrator



Full Chain demonstration: Electrical power generation, distribution and usage

Novel Aircraft Configurations



NextGenCTR demonstrator - Next Generation Civil



RACER - Rapid And Cost-Effective Rotorcraft

Optimal Passenger Environment



Full Scale Mock-up of Business Jet Office Centered Cabin
2021



Innovative Cabin & Cargo Systems Technologies
2021



How does it work?

- Up to 40% of EU funding available for CS2 Leaders
Up to 30% allocated to Core Partners (calls completed)
At least 30% for CfP (i.e. *Partners*)
- **Over 500m€ will be awarded to Partners via CfP**



Enhancing and leveraging innovation capability across Europe, with a strong emphasis on SME participation



Leveraging private sector initiatives,
and building on MS national and regional efforts

10th Call for Proposal at a glance

Key dates to remember*

- **Call Launch** ~7 May 2019
- **Call Closure** 3 September 2019, 17:00 (Brussels Time)
- **Evaluation Phase** October - November 2019
- **Q&A last publication**** 1 August 2019
- **Technical sessions & GAP preparation** Q4 2019 - Q1 2020
- **Indicative Start date of activities** > Q1 2020

* Dates are provided as indicative/target dates.

** Questions received until 5th July 2019, 17.00 (Brussels Time) will be answered after analysis and published when appropriate.

IMPORTANT:

The *preliminary version* of the CfP10 Call text (incl. draft list of topics and topic descriptions) is currently available via the [Clean Sky 2 website](#). The *final version* of this Call [incl. final list of topics and topic descriptions, call background documents] will be made available via the [H2020 Funding & Tenders Opportunities Portal](#) on ~ 7 May. **Only** this final version is considered for submitting applications and Questions & Answers.



CfP10 - Call Overview

SPD Area	No. of topics	Ind. topic Funding (in M€)
IADP Large Passenger Aircraft	19	20.70
IADP Regional Aircraft	3	1.35
IADP Fast Rotorcraft	3	4.80
ITD Airframe	18	12.93
ITD Engines	2	2.35
ITD Systems	13	10.32
Small Air Transport related topics*	[2]	[1.10]
ECO Design related topics*	[1]	[1.75]
<u>TOTAL</u>	<u>58</u>	<u>52.45</u>
Thematic Topics	# of topics	Ind. topic funding (M€)
<u>TOTAL</u>	<u>4</u>	<u>15</u>

**TA related topics are proposed and embedded in the following SPDs and as follows: AIR ITD: 1 SAT topic, 0.48M€ ; SYS ITD: 1 SAT topic, 0.60M€ ; ENG ITD: 1 ECO topic, 1.75M€*



CfP10 Overview – Thematic Topics

List of Topics for Calls for Proposals (CFP10) – Part B

Identification Code	Title	Type of Action	Value (Funding in M€)
JTI-CS2-2019-CFP10-THT-07	Ultra-High Aspect ratio wings	RIA	2.00
JTI-CS2-2019-CFP10-THT-08	Experimental and numerical noise assessment of distributed propulsion configurations	RIA	2.00
JTI-CS2-2019-CFP10-THT-09	Disruptive Active Flow Control for aircraft engine applications	RIA	1.50
JTI-CS2-2019-CFP10-THT-10	Non-intrusive, seedless measurement system: design, development, and testing	RIA	1.50



Questions?

Info-Call-CFP-2019-01@cleansky.eu

Last deadline to submit your
questions:

5th July 2019, 17:00 (Brussels time)



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