



Innovation Takes Off

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Principles of the *Clean Sky 2* Call for Proposals

Toulouse 26th October 2018

Innovation Takes Off

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Agenda

9h00

Café d'accueil

9h30

Introduction

9h35

Clean Sky 2 – Structure et objectifs – L'appel à propositions CfP09

(en anglais)

Ron VAN MANEN, Programme Manager Clean Sky 2

10h00

Clean Sky 2 – Les bonnes pratiques pour candidater

Michel GOULAIN / Vittorio SELMIN, Project Officers Clean Sky 2

10h30

Retour d'expérience d'un lauréat Clean Sky

Romain BOISSON, Business Development Manager Thiot Ingénierie

11h00

Présentation des Thematic topics

(en anglais)

Ron VAN MANEN, Programme Manager Clean Sky 2

11h30

Revue technique des plates-formes / démonstrateurs

Thierry MARET, THALES, Clean Sky 2 Program Manager

Marc MAUREL, AIRBUS, Clean Sky 2 Powerplant Business Manager

12h30

Synergie avec les dispositifs de financement de la Région

Nicolas BOUYSSSEL, Chargé de Mission Région Occitanie

12h45

Fin de la matinée



Clean Sky 2 9th Call for Proposals: Practical Aspects

Toulouse 26 October 2018

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9th Call for Proposal at a glance

Key dates to remember*

▪ Call Launch	6 November 2018
▪ Call Closure	05 February 2019, 17:00 (Brussels Time)
▪ Evaluation Phase	February - March 2019
▪ Q&A last publication**	19 December 2018
▪ Technical sessions & GAP preparation	Q2-Q3 2019
▪ Indicative Start date of activities	Q3 2019

*Dates are provided as indicative/target dates.

**Questions received until 5th December 2018 (Brussels Time), 17.00 will be answered after analysis and published when appropriate.

In case of questions, feel free to use our dedicated **Call mailbox**: Info-Call-CFP-2018-02@cleansky.eu. Our functional mailbox will be active as from the date of the call. We handle all questions in the same way for the benefit of all potential applicants: Q&A are regularly updated over the whole call life cycle and are published via the **H2020 Participant Portal of the European Commission**.

Questions received up until 5th December 2018, 17:00 (Brussels Time) will be answered after analysis and published in Q&A when appropriate. In total, 3 Q&A publications are foreseen: 06/11/2018, 22/11/2018, 19/12/2018 (estimated dates).

CfP09 - Preliminary Call Overview*

Status: 25.10.2018

SPD Area	No. of topics	Ind. topic Funding (M€)
IADP Large Passenger Aircraft	20	26.50
IADP Regional Aircraft	0	0
IADP Fast Rotorcraft	3	11.45
ITD Airframe	11	10.25
ITD Engines	4	3.35
ITD Systems	10	6.70
Small Air Transport (SAT) related topics*	[2]	[1.55]
ECO Design related topics	[1]	[1.50]
Technology Evaluator	3	0.85
<u>TOTAL</u>	<u>51</u>	<u>59.10</u>
*TA related topics are proposed and embedded in the following SPD and as follows: AIR ITD: 2 SAT topics, 1.55 M€; ENG ITD: 1 ECO topic, 1.50 M€		
Thematic Topics	No. of topics	Ind. topic Funding (M€)
<u>TOTAL</u>	<u>4</u>	<u>10</u>

*Important Note: the *proposed* Work Plan 2018-19 (2nd Amendment) incl. CfP09 Call Document is currently under GB Approval.

The **preliminary** version of the Call text is available via the [CS2 JU Website](#).



Partners: Definition and Role

- Selected via Calls for Proposals (2 to 3 launched per years)
- Short/medium-term commitment;
- Level and quality of resources adequate for the Topic concerned;
- Competences / capabilities necessary to carry out the activities aiming at developing new knowledge, new technologies and solutions contributing to the action;
- The scope and perimeter of activities is defined from the beginning and might be of various type (study, design, simulation, development, manufacturing, integration etc.);
- The activities are limited in time and closely related to the needs as proposed by IADP/ITD Steering Committees and approved for CfP launch by the CS2JU;
- The activity is defined and will be technically lead by the Topic Manager following the technical roadmap/goals of the ITD/IADP

Partner Topic Description within the complementary framework of an ITD/ IADP/TA

The **Topic descriptions**:

- Part of the Work Plan approved by the board of the CS2JU (provides the detailed technical description of each topics)
- Describe the tasks as defined by the Topic Manager (representing a Member of the ITD/ IADP/TA) based on the objectives of the ITD/IADP/TA
- Aligned with the CS2 Joint Technical Programme in support of HLOs of each ITD/IADP/TA (JTP: the strategic vision of the programme)
- Define the nature of the action: **RIA** (Research and Innovation), **IA** (Innovation) or **CSA** (Coordination and Support)

They contain the following :

- **Activities & outputs** as required within the IADP/ITD/TA
- **Indicative topic values** (funding in M€)
- **Capabilities and technology areas** concerned
- **Timeline**
- **Deliverables & Milestones**

Partner Topic Description within the complementary framework of an ITD/ IADP/TA - example

4. Clean Sky 2 – Large Passenger Aircraft IAPD

I. JTI-CS2-2018-CfP09-LPA-01-58: BLI configurations of classical tube and wing aircraft architecture - Wind tunnel tests insight into propulsor inlet distortion and power saving



Type of action (RIA/IA/CSA):		RIA	
Programme Area:		LPA	
(CS2 JTP 2015) WP Ref.:		WP 1.1.3.6	
Indicative Funding Topic Value (in k€):		3500	
Topic Leader:	Safran Tech	Type of Agreement:	Implementation Agreement
Duration of the action (in Months):	36	Indicative Start Date (at the earliest) ⁶ :	Q3 2019

Topic Identification Code	Title
JTI-CS2-2018-CfP09-LPA-01-58	BLI configurations of classical tube and wing aircraft architecture - Wind tunnel tests insight into propulsor inlet distortion and power saving

Short description

Boundary Layer Ingestion aircraft configurations aim to reduce the propulsive system power consumption, but face the challenge of the propulsive fan ingesting a distorted flow. This project will focus on the BLI configurations of tube and wing aircraft architectures. Through wind tunnel tests, it should allow a better understanding of the dependencies of the fan inlet distortion pattern and power saving, on the aircraft as well as the propulsor main geometric characteristics and operating points. The knowledges will serve for the "DX2 Boundary Layer Ingestion" demonstrator.

Links to the Clean Sky 2 Programme High-level Objectives⁷

This topic is located in the demonstration area:	Boundary Layer Ingestion
The outcome of the project will mainly contribute to the following conceptual aircraft/air transport type as presented in the scene setter:	Ultra-advanced Long-range Ultra-advanced Short/Medium-range

With expected impacts related to the Programme high-level objectives:

Reducing CO ₂ emissions	Reducing NO _x emissions	Reducing Noise emissions	Improving EU Competitiveness	Improving Mobility
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1. Background

High Performance Electrical Components for Bleed Control studies present significant opportunities of weight reduction and optimized maintenance through the suppression of the need for pressurized fluid for actuation.

With the development of full electrical architectures in order to support the needs of More Electric Aircraft and future Non propulsive Energy Generation system, it is necessary to consider enhanced electrical bleed control valve and inlet guide vane actuators, in terms of reliability (targeted MTBF: 50 000 h), with weight, volume and costs competitive with hydraulic / pneumatic technologies.

The introduction of EMA technology on previous Power On Demand Systems has enabled the demonstration of the feasibility of an electrical actuated bleedflow control, offering electrification of the bleed control function.

2. Scope of work

Tasks		
Ref. No.	Title - Description	Due Date
T2.1	Initial Requirements Capture – define requirements and interfaces through discussion with stakeholders	T0+1
T2.2	Component selection – perform initial performance analyses to enable baseline selection of components to meet the main performance requirements.	T0+3
T2.3	Components architecture definition	T0+6
T2.4	Functional modelling and failure mode analysis (FMEA)	T0+9
T2.5	Module Functional definition	T0+9
T2.6	Supply chain identification and industrialization assessment	T0+10

3. Major Deliverables/ Milestones and schedule (estimate)

*Type: R=Report, D=Data, HW=Hardware

Deliverables			
Ref. No.	Title – Description	Type*	Due Date
D2.1	Preliminary Requirements Specification	R	T0+3
D2.2	Module Architecture Report	R	T0+6
D2.3	Industrialisation Assessment Report	R	T0+12
D2.6	Test report	R	T0+27
D2.7	Two components shipsets for integration	HW	T0+27
D2.8	Final report (incl. reliability prediction)	R	T0+30
Milestones (when appropriate)			
Ref. No.	Title – Description	Type*	Due Date
D2.4	Preliminary Design Review	D	T0+12

4. Special skills, Capabilities, Certification expected from the Applicant(s)

- Specialist in pneumatics systems & control systems
- Links with, or internal, design & industrial capacity in power electronics
- Mechanical design of actuators
- Knowledge of aeronautical constraints (environments)
- Test & analysis capability to support detailed behavioural characterisation of power components

CfP09 Call text

• Final and Valid Call documents via the EC Participant Portal

Open access to research data

The Open Research Data Pilot has been extended to cover all Horizon 2020 topics for which the submission is opened on 26 July 2016 or later. Projects funded under this topic will therefore by default provide open access to the research data they generate, except if they decide to opt-out under the conditions described in [Annex L](#) of the H2020 Work Programme. Projects can opt-out at any stage, that is both before and after the grant signature.

Note that the evaluation phase proposals will not be evaluated more favourably because they plan to open or share their data, and will not be penalised for opting out.

Open research data sharing applies to the data needed to validate the results presented in scientific publications. Additionally, projects can choose to make other data available open access and need to describe their approach in a Data Management Plan.

Projects need to create a Data Management Plan (DMP), except if they opt-out of making their research data open access. A first version of the DMP must be provided as an early deliverable within six months of the project and should be updated during the project as appropriate. The Commission already provides guidance documents, including a template for DMPs. See the [Online Manual](#).

Eligibility of costs: costs related to data management and data sharing are eligible for reimbursement during the project duration.

The legal requirements for projects participating in this pilot are in the article 29.3 of the [Model Grant Agreement](#).

8. Additional documents:

[Clean Sky 2 Joint Technical Programme](#)
[Clean Sky 2 JU Financial Rules](#)
[Clean Sky 2 JU Regulation of Establishment](#)
[H2020 Regulation of Establishment](#)
[H2020 Rules for Participation](#)
[H2020 Specific Programme](#)

Additional documents

[Download all documents](#)
(if only, incl. the additional docs.)

[Full and Formal Description of Topics \(Annex of Work Plan\)](#)

[Template for Part B.I of Proposal](#)

[Template for Part B.II of Proposal](#)

[Template for Part C of Proposal \(Optional\)](#)

[Template for Part D of Proposal](#)

[Guidance for optional Part C of proposals - European Structural and Investment Funds](#)

A template for Part A is not provided here because Part A consists of on-line forms in the submission system.

[Mono-Beneficiary Model Grant Agreement for Partners](#)

[Multi-Beneficiary Model Grant Agreement for Partners](#)

[Horizon 2020 Annotated Model Grant Agreement - Link to document](#)

[Model Implementation Agreement \(2017\)](#)

[ITD / IADP Model Consortium Agreement](#)

The Templates for drafting proposals will also be available in the submission system (SEP).

CS2 Joint Technical Programme (for size reasons this very large doc can be downloaded separately in section 8 under the topic conditions and documents tab)



Clean Sky 2 Joint Undertaking

9th Call for Proposals (CfP09):
List and full description of Topics

Call Text

Important: For a valid application, only the Call documents published on the Participant Portal will be considered.

Note: Q&A Release nr. 1 already available via the Participant Portal !

Applicant's Proposal Submission System (1/2)

- Opening of the Submission System via the Participant Portal [PP] on (or soon after) Call Launch date
- Main Requirements to access to the submission system and submit your proposal :
 - ECAS ID account
 - European Commission Authentication System
 - Unique Identifier is your e-mail address so be consistent in using it
 - PIC – Participant Identity Code
 - Unique per Legal Entity – Avoid duplicates
 - Temporary versus validated PIC
- Please note:
 - **On-line** Submission of Proposals only [no other method i.e. e-mail, etc.]
 - **Deadline is absolute** (Brussels Time)

Applicant's Proposal Submission System (2/2)

Templates for submitting a valid proposal:

1. Part A [Administrative Section (Coordinator ID, Legal LEAR etc.)]
2. Part B.I [Technical Section: 3 EVAL Criteria and technical and financial content linked to DoA]

NOTE: 70-page limitation for non-thematic topics, 30-page limitation for thematic topics

3. Part B.II [Admin Section: members of consortium (participants, operational capacity, etc.), (potential) ethics and security issues identified by the applicant]
4. Part C [ESIF Complementary Activities – OPTIONAL]
5. Part D [Declaration on the Participation of any Affiliated Entities to Private Members of CS2JU in this proposal and Declaration(s) of Interests]

These templates (in pdf format) are available to potential applicants on the Participant Portal prior the official opening of the Submission System.

Part B.I [Technical Section: EVAL Criteria and technical and financial content linked to DoA]



**Research and Innovation Actions
(RIA)
Innovation Actions (IA)
Coordination and Supported Action (CSA)
Call for Proposals**

**Partner(s) Application/Proposal Template
(Technical Section)**

PART B. I

- March 2016 -

PART B SUBMISSION

Your document submitted will be composed of 2 parts:

1. PART B.I

This part introduces the 3 first points which relate to an evaluation criterion for a full proposal. The applicant should complete all these points in order to validate his/her application.

⚠ This part is subject to a 70-page limitation, including the table templates as presented under the technical section of the present document.

2. PART B.II

This part introduces the 2 last points which relate to the members of consortium (participants, operational capacity, etc.), (potential) ethics and security issues identified by the applicant.

This part is complementary to PART B.I. The applicant should complete all these points in order to validate his/her application.

This part is not subject to any page limitation.

⚠ Please do not merge PART B.I and PART B.II as these documents should be submitted separately in the submission system.

PART B. I of the Partner(s) Application/Proposal Template for IA/RIA (Technical Section)
[Proposal Acronym]

1

1. Excellence

2. Impact

3. Implementation

Important: Calls for proposals will be managed in compliance with the CS2 Work Plan and the General Annexes of the Horizon 2020 Work Programme 2018-2020

Part B.I [Tech Section: EVAL Criteria for RIA, IA and CSA]

1. Excellence

- 1.1 Objectives**
- 1.2 Relation to the CS2JU Work Plan**
- 1.3 Concept and approach**
- 1.4 Ambition**

2. Impact

- 2.1 Expected Impact**
- 2.2 Measures to maximise impact**
 - 2.2.1 Dissemination and exploitation of results**
 - 2.2.2 Communication activities**

3. Implementation

- 3.1 Description of work — Work packages, deliverables and milestones**
- 3.2 Management Structure and Procedures**
 - 3.2.1 Capabilities**
 - 3.2.2 Structure and procedures**
 - 3.2.3 Risks**
- 3.3 Consortium/ Clusters as a whole (where applicable)**
- 3.4 Resources to be committed**

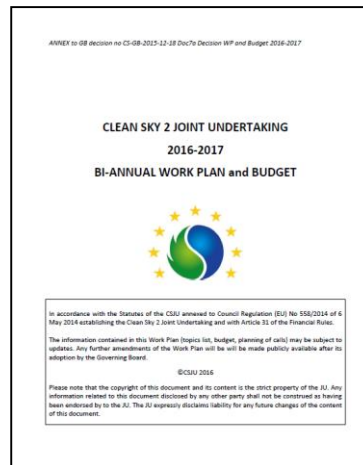
CS2 Call Background documentation

The 3 Levels of CS2 Objectives

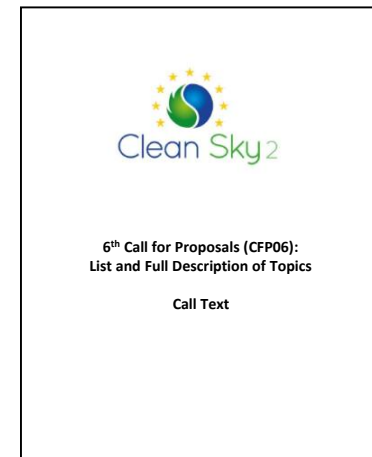
CS2 High Level Objectives



Objectives in the Bi-Annual Work Plan



Objectives in each topic description



The Three Criteria – Elaborated

1. EXCELLENCE

Type of Actions	Aspects for Evaluation	Corresponding Ref. in the proposal template (Part B.I.)
Research and Innovation Actions; Innovation Actions	Clarity and pertinence of the objectives	§1.1
	Soundness of the concept, and credibility of the proposed methodology;	§1.3
	Appropriate consideration of interdisciplinary approaches and, where relevant, use of stakeholder knowledge and gender dimension in research and innovation content	§1.3
	Extent that the proposed work is beyond the state of the art , and demonstrates innovation potential	§1.4

NOTE: For Thematic Topics to determine the ranking, the score for the criterion ‘excellence’ will be given a weight of 1.5.

The Three Criteria – Elaborated

2. IMPACT

Type of Actions	Aspects for Evaluation	Corresponding Ref. in the proposal template (Part B.I.)
Research and Innovation Actions; Innovation Actions	The extent to which the outputs of the project would contribute to each of the expected impacts mentioned in the work programme under the relevant topic;	§2.1
	Any substantial impacts not mentioned in the work programme, that would enhance innovation capacity, create new market opportunities, strengthen competitiveness and growth of companies, address issues related to climate change or the environment, or bring other important benefits for society;	§2.1
	Quality of the proposed measures to: •Exploit and disseminate the project results (incl. management of IPR), and to manage research data where relevant. •Communicate the project activities to different target Audiences	§2.2.1 §2.2.2
	The section on exploitation shall demonstrate a clear commitment to support exploitation of the results brought by their participation in the programme and contribute to European EU competitiveness.	§2.2.1



IMPACT criterion: basic assumptions

- Assume that the proposal is 100% successful
- It is not necessary that impact is immediate but the proposal should be evaluated on the *likelihood* and *significance* of the impact[s] described assuming the project's success.
Are these impacts qualified and/or quantified?
- A proposal does not need to demonstrate impact in all areas (but the merit of the proposal and score should reflect the breadth and scope of impacts expected).

NOTE:

- This criterion may play a « **tie-breaker** » role. Emphasis should be given to the innovation / demonstration orientation of the CS2 programme.
- For Innovation actions to determine the ranking, the score for the criterion 'impact' will be given a weight of 1.5.

How should Innovation orientation be evaluated?

Experts should check that the proposed activities are in line with the type of action implemented by the topic [RIA/IA/CSA].

Under the '*Impact*' criterion:

- All *aspects* should receive attention, see previous slide.
- *The proposers' description of any barriers/obstacles, and any framework conditions (such as regulation and standards), that may determine whether and to what extent the expected impacts will be achieved should also be checked and assessed;*
- *The extent to which risks have been identified as well as potential mitigation of these can be helpful in assessing the merit of the proposal's impact[s].*


The Three Criteria – Elaborated (5/6): 3. IMPLEMENTATION

Type of Actions	Aspects for Evaluation	Corresponding Ref. in the proposal template (Part B.I.)
Research and Innovation Actions; Innovation Actions	Quality and effectiveness of the work plan, including extent to which the resources assigned to work packages are in line with their objectives and deliverables;	§3.1 / §3.4
	Appropriateness of the management structures and procedures, including risk and innovation management;	§3.2
	Match of technical capabilities and skills with the Topic Area and congruent with the programme objectives embodied in the topic;	§3.2
	Ability to work effectively within a supply chain and into an equal or higher tier industrial organization;	§3.2.1
	Complementarity of the participants and extent to which the consortium as whole brings together the necessary expertise;	§3.3
	Appropriateness of the allocation of tasks, ensuring that all participants have a valid role and adequate resources in the project to fulfil that role.	§3.3 / / §3.4

Efficient and well justified application of resources [1]

Requested funding, total eligible costs vs. the indicative topic value:

- ✓ The indicative topic funding value provided in the Call is an **estimate**
- ✓ Applicants must address the scope of the topic in full and submit with their proposal both requested funding **and** the **total eligible costs**
- ✓ Applicants' **resource requirements** for the proposed activity, should be detailed with due justifications and explanations (see Part B.I. - Work Package Effort)
- ✓ The applicant's **total eligible costs** of their proposal should be considered for the evaluation of the *Adequacy & Efficiency of the allocation of resources*
- ✓ The requested funding amount should not be considered as this may depend on the nature of the applicant in accordance with H2020



How to score the Adequacy & Efficiency of the allocation of resources:

- ✓ Should be based on the **total eligible costs** of their proposal
- ✓ No ceiling as such shall apply
- ✓ The proposal **must** contain due justification of any exceedance of the topic's "**Gross Budget**", which should be calculated as below
- ✓ Scores for the Implementation criterion **must** take the level of exceedance *or* potential savings [if any] vs. this Gross Budget and the justification into consideration.

For RIAs and CSAs:

- Merit of the proposal wrt resource requirements stated for the technical content, in light of topic
- Total Eligible Cost to be compared to $[100/100 \times \text{indicative funding of the topic}]$ as "Topic Gross Budget"

For IAs

- Merit of the proposal wrt resource requirements stated for the technical content, in light of topic
- Total Eligible Cost to be compared to $[100/70 \times \text{indicative funding of the topic}]$ as "Topic Gross Budget"

A reminder on funding rates [info only]

- ✓ Actions launched as CfP Topics and defined in the Work Plan are labelled “Research & Innovation Actions” and “Coordination and Support Actions”
- ✓ For Research & Innovation Actions and Coordination and Support Actions: all participants will be reimbursed 100% of Total Eligible Costs

$$\text{Funding} = \text{YY}\% \times (\text{Direct Costs}^{(1)} \times 125\% + \text{Subcontracting costs})$$

- Research & Innovation Actions and Coordination and Support Actions: YY = 100% for all participants

⁽¹⁾ Direct Costs include direct personnel costs + other direct costs

Ethics Evaluation in Horizon 2020

- In H2020, all proposals considered for funding will be submitted to an Ethics Review.
- The CS2JU will check, as appropriate, with the help of independent ethics experts - if the proposal complies with ethical principles and relevant legislation.
- All proposals must describe ethical issues raised & how they will be addressed so as to conform to national, European and international regulations.

Ethical Issues raised in Calls for Partners in Clean Sky

Typical examples from previous Calls where applicants raised an ethical issue:

- Importing/exporting for non-EU countries
- Involvement of non-EU countries
- Dual use / Exclusive focus on civil application
- Use of humans in testing (infrequent in Clean Sky)
- Personal data (data protection, Art 39.2 of the GA)
- Misuse

Prior to your application submission

Prior any submission of proposal, applicants should check the following elements:

- **Eligibility, admissibility and topic specific conditions** [see the CSJU Work Plan, General Annexes of H2020 Work Programme, Topic descriptions] - Important Note: **Existing Core Partner** interested in Call for Proposals are invited to check their admissibility via the list of Private Members available via the JU website. → Direct link: [here](#)
 - **Evaluation criteria, scoring and threshold** [see the CSJU Work Plan]
 - **Full evaluation procedure** [see Rules for submission, evaluation, selection, award and review procedures for Calls for Proposals]
- **All Call background documentation available** via the Participant Portal of the European Commission

Submission System: Remember

- All Call Documents on Participant Portal
- All information can be downloaded including static versions (i.e. PDF version) of on-line forms for preparatory information gathering
- Online forms and uploaded documents
- Respect size and page limits as indicated. Do not use tiny fonts or links to unofficial annexes
- Validate formats as you progress – not at the last minute !
- Can save / submit and revise many times

Any questions?

Info-Call-CFP-2018-02@cleansky.eu

Last deadline to submit your questions:
5th December 2018, 17:00 (Brussels time)

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Thank You

